Chapter 12

Attraction and Rejection

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Few experiences are more all-consuming than intense interpersonal attraction or intense interpersonal rejection. Most of us can readily remember attraction and rejection experiences that dominated our life for a while. Regarding attraction, perhaps we recall the mental preoccupation with our first love or the strong desire to form a friendship with a fellow collegiate dorm resident. Regarding rejection, perhaps we recall the time when we were ostracized by everybody at a party or the time when the love of our life left us for another partner. As these examples illustrate, attraction involves an individual's positive evaluation of others and the desire to approach them, whereas rejection involves others' negative evaluation of an individual and the tendency to exclude him or her. The present chapter reviews the scientific work on attraction and rejection, beginning with attraction.

Attraction

What Is Attraction?

Scholars have not arrived at a consensual definition of attraction. Perhaps the most influential definition over the past several decades is that interpersonal attraction is "an individual's tendency or predisposition to evaluate another

person . . . in a positive (or negative) way" (Berscheid & Walster, 1978, p. 20). Scholars adopting this definition primarily conceptualize attraction as an attitude, with affective, behavioral, and cognitive components. Over time, scholars have increasingly complemented this attitudinal conceptualization by emphasizing the motivational aspects of attraction, observing that attraction characterizes not only perceivers' evaluations of targets, but also their desire to initiate contact or to establish intimacy with them (e.g., Simpson & Harris, 1994; see Graziano & Bruce, 2008).

Attraction scholars focus on relationships that are not (yet) close, although they also examine attraction-relevant processes conducted in close relationship contexts (e.g., research distinguishing strangers who become close friends from strangers who do not). We refer to the person who inspires attraction in somebody else as the "target" and the person who experiences attraction as the "perceiver." In reality, of course, both interactants are frequently in both of these roles simultaneously; we adopt this terminology for clarity of exposition. We discuss the history of research on interpersonal attraction and theoretical perspectives driving this research before reviewing the predictors of attraction.

Historical Perspective

We can roughly divide empirical research on attraction into four historical epochs: (1) pre-1960, (2) 1960s–1970s, (3) 1980–2005, and (4) 2005–present. Although social theory of human relations—including classic work on friendship (Aristotle, 330 BC/1991) and love (Capellanus, 1184/1960)—is millennia old, the pre-1960s epoch included only a few empirical studies of attraction. Notable among these were studies on assortive mating (Harris, 1912), social popularity (Moreno, 1934), relationship power (Waller, 1938), mate preferences (Hill, 1945), human sexuality (Kinsey, Pomeroy, & Martin, 1948; Kinsey, Pomeroy, Martin, & Gebhard, 1953), and the effects of physical proximity on attraction (Festinger, Schachter, & Back, 1950). These studies did not cohere into an organized field of inquiry, but they set the stage for social psychologists to pursue an intensive research emphasis on interpersonal attraction.

In the second epoch, approximately the 1960s and 1970s, research on attraction blossomed from a smattering of disparate findings to a major research area within social psychology. Newcomb (1961) and Byrne (1961) launched this epoch with landmark publications establishing the theoretical and methodological foundations for research linking similarity to attraction. Shortly thereafter, scholars investigated a broad range of attraction topics, including the effects of the target's physical attractiveness (Walster, Aronson, Abrahams, & Rottman, 1966; Huston, 1973), the effects of the perceiver's physiological

arousal (Berscheid & Walster, 1974; Dutton & Aron, 1974), whether targets tend to reciprocate perceivers' attraction (Walster, Walster, Piliavin, & Schmidt, 1973), whether individuals who are "too perfect" are less likable than individuals who have benign imperfections (Aronson, Willerman, & Floyd, 1966), and whether perceivers are more attracted to targets who grow to like them over time than to targets who have liked them from the beginning (Aronson & Linder, 1965). Indeed, the empirical yield of attraction research was substantial enough to warrant a book entitled *Interpersonal Attraction*, which Berscheid and Walster first published in 1969 and revised in 1978.

In the third epoch, from approximately 1980 to 2005, "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; see Berscheid, 1985; 2007). For diverse reasons, including the skyrocketing divorce rates of the time, scholars became increasingly interested in understanding what makes established relationships, such as marriages and dating relationships, satisfying versus dissatisfying and stable versus unstable (see Fletcher & Overall, Chapter 4, this volume). Meanwhile, evolutionary psychology emerged as a new approach to studying interpersonal attraction and became influential in the absence of a coherent scholarly field of attraction (Buss, 1989; Buss Schmitt, 1993; Gangestad & Simpson, 2000; see Maner & Kenrick, Chapter 13, this volume). Evolutionarily oriented psychologists have launched many new directions in attraction research, particularly regarding sex differences.

The fourth epoch, from approximately 2005 to the present, has witnessed a resurgence of interest in attraction research, as scholars have capitalized on technological and methodological advances in dating practices and social networking in the real world. For example, scholars have studied attraction through online da Fiore, Taylor, Mendelsohn, & Hearst, 2008; Hitsch, Hortaçsu, & Ariely, 2009; Sprecher, Schwartz, Harvey, & Hatfield, 2008), speed-dating (Finkel, Eastwick, & Matthews, 2007; Fisman, Iyengar, Kamenica, & Simonson, 2006; Kurzban & Weeden, 2005), and social networking Web sites (McKenna, 2008; Tong, Van Der Heide, Langwell, & Walther, 2008; Walther, Van Der Heide, Kim, Westerman, & Tong, 2008). Interest in these technological and methodological advances has helped fuel a broader renaissance of research on attraction, with many current approaches addressed in the recent *Handbook of Relationship Initiation* (Sprecher, Wenzel, & Harvey, 2008).

Theoretical Perspectives

Despite the recent renaissance of attraction scholarship, the field remains 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.

This theoretical disorganization notwithstanding, we can extract a few organizing themes (see Graziano & Bruce, 2008). In the 1960s and 1970s, a large proportion of attraction research fell into one (or both) of two broad theoretical traditions. The first encompassed *reinforcement theories*, which were guided by the idea that perceivers are attracted to targets who are rewarding to them. Attraction scholars working in this tradition borrowed ideas from general theories—such as social exchange theory (Blau, 1964; Homans, 1974), equity theory (Adams, 1965; Walster, Walster, & Berscheid, 1978), and interdependence theory (Kelley & Thibaut, 1978; Thibaut & Kelley, 1959)—and also developed more specific variants targeted toward attraction. According to one such theory, "liking for a person will result under those conditions in which an individual experiences *reward in the presence of that person*, regardless of the relationship between the other person and the rewarding event or state of affairs" (Lott & Lott, 1974, p. 172; emphasis in original; see also Byrne & Clore, 1970). Illustrative of research in this tradition is work demonstrating that perceivers in physically uncomfortable environments (e.g., hot or crowded rooms) are less attracted to strangers than are perceivers in more comfortable environments (Griffitt, 1970; Griffitt & Veitch, 1971).

The second broad theoretical tradition encompassed *cognitive consistency theories*, which were guided by the idea that perceivers are motivated to seek congruence among their thoughts, feelings, and interpersonal relationships. As with the reinforcement approach, scholars working in this tradition borrowed ideas from general theories—particularly cognitive dissonance theory (Festinger, 1957) and balance theory (Heider, 1958)—and also developed more specific variants targeted toward attraction. For example, not only do perceivers tend to like targets who like them, they also tend to like targets who share their own sentiments toward third parties (e.g., they like targets who dislike somebody they also dislike) (Aronson & Cope, 1968).

Although reinforcement and cognitive consistency theories have continued to influence attraction research, a number of additional theoretical perspectives have become influential in recent decades. Of these, the most influential has been *evolutionary psychology*, which David Buss and his collaborators introduced to study attraction dynamics in the mid-to-late 1980s (Buss, 1989; Buss & Barnes, 1986). Evolutionary psychology is guided by the idea that people's thoughts, feelings, and behaviors are influenced by evolved biological mechanisms (see Maner & Kenrick, this volume). Scholars have derived a panoply of new attraction hypotheses from this evolutionary approach (e.g., Buss & Schmitt, 1993; Eastwick, 2009; Gangestad & Simpson, 2000), and many of these hypotheses have been empirically supported.

Additional theories that have influenced the study of attraction include attachment theory (Eastwick & Finkel, 2008b), reactance theory (Pennebaker et al., 1979), and communal-exchange theory (Clark & Mills, 1979). In addition, in the concluding chapter of the *Handbook of Relationship Initiation*, Perlman (2008) discusses a long list of perspectives addressed by authors in that volume, including theories of uncertainty reduction, information management, self-expansion, relationship goal pursuits, social penetration, dialectic processes, scripts, and gender.

Predictors of Attraction

We now explore the predictors of attraction: What makes a perceiver become attracted to a target? We divide this exploration into sections on (1) target factors, (2) perceiver factors, (3) relationship factors, and (4) environmental factors.

Target Factors: Who Is Attractive? Scholars have identified a broad range of factors that make some targets more attractive than others. Some of these target effects are stable individual differences, whereas others are situationally induced or time varying. In terms of stable individual differences, one of the most important and well-studied target factors is *physical attractiveness*. In one early demonstration of the power of physical attractiveness, college students attended an evening-long dance party with a randomly assigned partner they had not previously met (Walster et al., 1966). The *only* variable that predicted attraction was the target's physical attractiveness. Although scholars have now identified other target factors that promote attraction (see below), this early study established the target's physical attractiveness as a major predictor of perceivers' attraction, and decades of subsequent research have done little to soften this conclusion (Eastwick & Finkel, 2008a; Feingold, 1990; Langlois et al., 2000; Reis, Nezlek, & Wheeler, 1980).

At first glance, these results appear to contradict the robust finding that perceivers tend to become romantically involved with targets who are approximately equal to them in attractiveness (Berscheid, Dion, Walster, & Walster, 1971; White, 1980; see Feingold, 1988). However, this matching effect appears to be driven by perceivers desiring to date extremely attractive targets but settling for targets of comparable attractiveness to themselves because they typically cannot attract the most gorgeous targets (Burley, 1983; Huston, 1973; Kalick & Hamilton, 1986). This settling logic becomes especially plausible when we consider that there is widespread agreement about which targets are attractive. This agreement emerges not only across cultures (Cunningham, Roberts, Barbee, Druen, & Wu, 1995; Jones & Hill, 1993), but also when the perceivers

are very young children (e.g., 3-month-old infants) whose attraction was assessed by recording how long they looked at attractive and unattractive faces (Langlois et al., 1987; also see Slater et al., 1998).

What characteristics make a target physically attractive? In terms of faces, targets are perceived as warm and friendly when they exhibit a large smile, dilated pupils, highly set eyebrows, full lips, and a confident posture (see Cunningham & Barbee, 2008). In addition, men tend to be attracted to women with sexually mature features such as prominent cheekbones, whereas women tend to be attracted to men with sexually mature features such as a broad jaw (Cunningham, Barbee, & Philhower, 2002; Rhodes, 2006). One clever line of research using computer morphing procedures to produce composite versions of human faces (see Fig. 12.1) demonstrated that such faces become more attractive when they consist of a larger number of human faces. One explanation for this effect is that such composites seem most familiar to the perceivers because they approximate an average of the targets perceivers have encountered in their everyday lives, which make the composites easy to process (Langlois, Roggman, & Musselman, 1994; Langlois, Roggman, & Rieser-Danner, 1990; Rhodes, Harwood, Yoshikawa, Nishitani, & MacLean, 2002; Rubenstein, Langlois, & Roggman, 2002). A second explanation is that such composites are symmetrical, a feature that perceivers find attractive in its own right (Fink, Neave, Manning, & Grammer, 2006; Mealey, Bridgstock, & Townsend, 1999; Rhodes, Sumich, & Byatt, 1999).

Moving from faces to bodies, men tend to be most attracted to women with waist-to-hip ratios of approximately 0.7, whereas women tend to be most attracted to men with waist-to-hip ratios of approximately 0.9 (Furnham, Petrides, & Constantinides, 2005; Singh, 1993, 1995, 2004). Men's waist-to-hip ratio preferences tend to be stronger than women's, although the degree to which men's preferences are cross-culturally universal has been challenged by recent evidence that men in less sexually egalitarian cultures such as Greece and Japan place more importance on women's waist-to-hip ratio than do men in more egalitarian cultures such as Great Britain and Denmark (Cashdan, 2008). Shocking recent evidence demonstrates that men also tend to prefer women with relatively large breasts, especially when they are accompanied by a relatively trim waist (Furnham, Swami, & Shah, 2006; Voracek & Fisher, 2006), and women seem to prefer men with broad shoulders, especially when they are accompanied by a relatively trim waist (Hughes & Gal[illegible]2003). Women also tend to prefer tall men over short men (Hitsch et al., 2009; Salska et al., 2008).

In addition to their physical attractiveness, targets are more attractive to the extent that they possess certain *psychological dispositions*. Scholars have identified a broad range of target characteristics that are appealing to perceivers; three of the most important are warmth/trustworthiness, attractiveness/vitality, and

FIGURE 12.1. 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.

status/resources (Fletcher, Simpson, Thomas, & Giles, 1999; Simpson, Fletcher, & Campbell, 2001).

A third stable factor influencing how attractive targets are is the degree to which they anticipate that perceivers will like them or reject them (Curtis & Miller, 1986). Targets who anticipate that perceivers will like them behave more

warmly during their interactions, which in turn predicts perceivers' liking for them (Stinson, Cameron, Wood, Gaucher, & Holmes, 2009).

Shifting from dispositional to situational factors, targets who are *familiar* are more attractive than targets who are not (but see Norton, Frost, & Ariely, 2007). In an early study (Hartley, 1946), research participants provided their impressions of various national groups, some of which were fictitious (e.g., Danerians). Participants generally disliked the unfamiliar groups, assuming they possessed unappealing characteristics. Similarly, research on the "mere exposure effect" (Zajonc, 1968, 2001) suggests that individuals tend to experience greater attraction toward familiar stimuli (including familiar people) than toward unfamiliar stimuli. This effect emerges in the absence of any other features frequently confounded with familiarity (e.g., quantity or quality of social contact) and without perceivers even being aware they have gained familiarity. In one study, female research assistants posed as students in a lecture course, attending 0, 5, 10, or 15 of the 40 lectures; these research assistants did not speak to the other students when attending the course (Moreland & Beach, 1992). The more classes the women attended, the more attractive students rated them to be.

Perceivers also tend to be more attracted to targets who *ingratiate* than to targets who do not, particularly when the ingratiation attempt is directed toward the perceiver rather than toward a third party observer (Gordon, 1996). This perceiver–observer discrepancy appears to result from perceivers' self-enhancement motives and is not moderated by perceivers' self-esteem (Vonk, 2002). In addition, perceivers tend to be more attracted (1) to targets who *self-disclose* to them than to targets who do not (Collins & Miller, 1994) and (2) to appealing (but not unappealing) targets who exhibit benign *pratfalls*, such as spilling coffee on themselves, than to appealing targets who do not (Aronson et al., 1966; see Deaux, 1972).

Finally, male perceivers tend to find female targets more attractive—in terms of both physical appearance (Roberts et al., 2004) and scent (Havlíček, Dvořáková, Bartoš, & Flegr, 2006; Singh & Bronstad, 2001)—when these targets are *ovulating* than when they are not. This effect could emerge in part because women dress better when they are ovulating than when they are not (Haselton & Gangestad, 2006; Haselton, Mortezaie, Pillsworth, Bleske-Rechek, & Frederick, 2007; Schwarz & Hassebrauck, 2008). However, the effect remains robust when clothing is held constant. A recent study of lap dancers working at "gentlemen's clubs" demonstrated that the dancers earned approximately $335 (U.S. currency) in tips throughout the evening from male customers when they were in the fertile phase of the menstrual cycle (when they were ovulating), $260 in the luteal phase (when they were neither ovulating nor menstruating), and $185 in the menstrual phase (Miller, Tybur, & Jordan, 2007). These effects

were limited to women who were naturally cycling, which suggests that they were caused by hormonal shifts across the menstrual cycle. Women who were taking oral contraceptives earned less money than naturally cycling women who were ovulating did.

Perceiver Factors: Who Becomes Attracted? In addition to targets differing in how attractive they are, perceivers differ in their tendency to become attracted to targets. As with target effects, some of these perceiver effects are stable individual differences, whereas others are situationally induced or time varying. In terms of stable individual differences, *physically unattractive perceivers* tend to view targets as more attractive (Montoya, 2008) and tend to have lower standards for a potential partner (Buss & Shackelford, 2008) than physically attractive perceivers do, although some research suggests that physically unattractive perceivers merely lower their standards for whom they would date while still accurately assessing targets' attractiveness (Lee, Loewenstein, Ariely, Hong, & Young, 2008).

Similarly, perceivers with low *comparison standards* (low expectations regarding what they deserve or can get from a relationship) tend to view targets as more attractive than do perceivers with high comparison standards. Although individuals vary in the degree to which their comparison standards are stably high or low, a given individual's comparison standards can also fluctuate over time. In one study, for example, male participants rated a photographed female as less attractive after watching a television show depicting gorgeous women (*Charlie's Angels*) than after watching a television show that did not (Kenrick & Gutierres, 1980). A striking follow-up study showed that men who had just viewed *Playboy* centerfolds rated their wife as less attractive and even rated themselves as less in love with her than did men looking at magazines that did not depict beautiful women; these effects did not emerge for women's evaluations of their husband just after they had viewed *Playgirl* (Kenrick, Gutierres, & Goldberg, 1989).

Another individual difference variable influencing perceivers' tendencies to become attracted to targets is *perceiver sex*. At least in the romantic domain, men tend to experience greater attraction than women, especially when considering short-term involvements. For example, men were somewhat more likely than women (58% versus 48%) to accept a date from an opposite-sex research confederate who approached them on campus, and they were *much* more likely to accept an offer to go home with (63% versus 7%) or to "go to bed with" (71% versus 0%) the confederate (Clark, 1990; Clark & Hatfield, 1989). Several speed-dating studies have yielded compatible results, with men "yessing" a larger proportion of their partners than women (Fisman et al., 2006; Kurzban & Weeden, 2005; Todd, Penke, Fasolo, & Lenton, 2007; but see Finkel & Eastwick, 2009).

Shifting from dispositional to situational factors, perceivers can misattribute their *physiological arousal* from a nonromantic source to a romantic one (Berscheid & Walster, 1974; see Schachter & Singer, 1962). In a classic field study, an attractive female experimenter approached men immediately after they had walked across either a low, stable bridge or a high, swaying one (Dutton & Aron, 1974). The high bridge presumably inspired greater fear in most people than the low one did, and, consistent with the misattribution idea, the men who had walked across the high bridge exhibited greater romantic attraction to the experimenter than did the men who had walked across the latter one (also see Meston & Frohlich, 2003). Scholars have employed a range of arousal manipulations (e.g., fear, aerobic exercise, sexual arousal) to replicate this effect for physically attractive targets (see Foster, Witcher, Campbell, & Green, 1998). However, the effect reverses for unattractive targets, with physiologically aroused perceivers rating such targets as less attractive than physiologically unaroused perceivers do (Foster et al., 1998).

Additional situational variables that increase perceivers' attraction to targets include (1) perceivers being in a happy mood rather than a sad mood (Gouaux, 1971; Veitch & Griffitt, 1976); (2) perceivers experiencing fear caused by a noninterpersonal stimulus and believing that affiliating can reduce the impact of the stressor (Schachter, 1959; see Rofé, 1984); (3) perceivers' level of self-disclosure, with greater self-disclosure causing greater attraction to the target of the self-disclosure (Collins & Miller, 1994); (4) perceivers' level of alcohol consumption, with greater consumption predicting greater attraction (Jones, Jones, Thomas, & Piper, 2003; Parker, Penton-Voak, Attwood, & Munafò, 2008); (5) perceivers keeping the relationship secret (Wegner, Lane, & Dimitri, 1994); and (6) perceivers physically approaching targets rather than being physically approached by them (Finkel & Eastwick, 2009).

Relationship Factors: What Dyadic Characteristics Promote Attraction? Attraction is determined by more than just the characteristics of the target, on the one hand, and the characteristics of the perceiver, on the other. Many important predictors of attraction are dyadic, or relational, involving the interplay between the target's and the perceiver's characteristics. In this section, we review relational predictors relevant to the *attributes* of the target and the perceiver and the *interpersonal dynamics* emerging between them.

PERCEIVER × TARGET ATTRIBUTES In reviewing research on the link between the target's and the perceiver's attributes and attraction, we focus on the expansive literature investigating the link between similarity and attraction. As discussed, Newcomb and Byrne both published landmark studies on similarity and attraction in 1961. Newcomb (1961) randomly assigned University of Michigan transfer students to be roommates and discovered that the more similar the students were before moving in together, the more they liked each other

by the end of the academic year. Byrne (1961) innovated a novel laboratory paradigm (his "bogus stranger" paradigm) to glean experimental evidence that perceivers are attracted to targets who are similar to them. A decade later, Byrne (1971) reviewed the extant literature, concluding that attraction is a linear function of attitudinal similarity: As the proportion of similar to dissimilar attitudes increases, so too does attraction to the target.

The similarity–attraction effect exists not only for attitudinal similarity (see also Griffitt & Veitch, 1974), but also for demographic similarity (Hitsch et al., 2009; McPherson, Smith-Loving, & Cook, 2001; Watson et al., 2004), personality similarity (Gonzaga, Campos, & Bradbury, 2007), and, remarkably, even similarity in the letters in the perceiver and the target's names (Jones, Pelham, Carvallo, & Mirenberg, 2004). Furthermore, similarity effects are not limited to positive characteristics; antisocial individuals tend to be attracted to other antisocial individuals (Krueger, Moffitt, Caspi, Bleske, & Silva, 1998), and depressive individuals tend to be attracted to other depressive individuals (Locke & Horowitz, 1990).

Some scholars have argued that perceivers experience the strongest attraction to targets who are similar to the perceivers' "ideal self" (the person they aspire to become) rather than to the perceivers' actual self (LaPrelle, Hoyle, Insko, & Bernthal, 1990). Some evidence, however, suggests a boundary condition on perceivers' attraction to a target who is similar to their ideal self: Cognitive attraction increases as the target approaches and even exceeds the perceiver's ideal self, but affective attraction declines as the target exceeds perceiver's ideal self, most likely because such a target is threatening to perceivers (Herbst, Gaertner, & Insko, 2003).

Although the link between similarity and attraction is robust (for a meta-analytic review, see Montoya, Horton, & Kirchner, 2006), it is not universal. For example, abundant evidence suggests that complementarity on the dominance–submissiveness dimension predicts greater attraction than similarity on that dimension (Dryer & Horowitz, 1997; Markey & Markey, 2007; Tiedens & Fragale, 2003; see Winch, 1958).

PERCEIVER × TARGET INTERACTION DYNAMICS In addition to this research exploring the interplay between the perceiver's and the target's attributes, much research has also explored the interplay between the perceiver and the target's interaction dynamics. Perhaps the most extensively researched topic in this domain is *reciprocity of attraction*. Scholars have long demonstrated that perceivers tend to like targets who like them more than targets who do not (Backman & Secord, 1959; Curtis & Miller, 1986). Kenny and his colleagues have distinguished between two distinct forms of reciprocity: generalized and dyadic (Kenny, 1994; Kenny & Nasby, 1980; Kenny & La Voie, 1984). Whereas the *generalized reciprocity* correlation indexes the degree to which likers tend to

be liked (i.e., whether perceivers who tend to like targets on average tend to be liked by those targets on average), the *dyadic reciprocity* correlation indexes the degree to which uniquely liking a given target more than other targets predicts being uniquely liked by that target in return (i.e., whether perceivers who selectively like certain targets more than others tend to be liked by those certain targets more than those targets like other people). One interesting feature of this work is that dyadic reciprocity effects tend to be positive in both platonic and romantic contexts (with perceivers who uniquely like or desire a target also being uniquely liked or desired by that target), whereas generalized reciprocity effects are positive in platonic contexts (with perceivers who generally like targets being liked by those targets) but negative in romantic contexts (with perceivers who generally desire targets not being desired by those targets) (Kenny, 1994; Eastwick, Finkel, Mochon, & Ariely, 2007; see Finkel & Eastwick, 2008).

A second line of research on the attraction-relevant effects of perceiver × target interaction dynamics involves *nonconscious mimicry*, which refers to unintentional behavioral synchrony between a perceiver and a target. Perceivers like targets who mimic them more than targets who do not (Chartrand & Bargh, 1999). People seem to have an unconscious intuition of this effect, as they tend to mimic others when they want to be liked (Cheng & Chartrand, 2003; Lakin & Chartrand, 2003; Lakin, Jefferis, Cheng, & Chartrand, 2003).

A third line of research involves *transference*, which refers to a cognitive process through which aspects of a perceiver's relationship with one target are automatically applied to the perceiver's relationship with another (Andersen, Reznik, & Manzella, 1996; see Freud, 1912/1958). In one study, perceivers became more attracted to targets who resembled positive than negative significant others in their life, an effect that was not due to the simple positivity or negativity of the targets' characteristics (Andersen et al., 1996).

A fourth line of research involves *instrumentality*, which refers to the degree to which perceivers find a given target useful in helping them progress in their current goal pursuits. Perceivers are more attracted to a target who is instrumental for a specific goal (but not to a target who is not) when that goal is currently active than when it is not (Fitzsimons & Shah, 2008). This preference for instrumental targets when a particular goal is relevant appears to be especially strong for perceivers with high power (Bargh, Raymond, Pryor, & Strack, 1995; Gruenfeld, Inesi, Magee, & Galinsky, 2008).

A fifth line of research involves *exchange and communal norms*, which refer to expectations that dyadic partners should give benefits contingently or noncontingently, respectively (see Clark, Lemay, Graham, Pataki, & Finkel, 2010). Perceivers are more attracted to a target who behaves in a manner consistent with the norm they prefer for that relationship. In a landmark experiment, male perceivers eager to follow an exchange norm with a female target were more

attracted to her when she reciprocated a benefit they had provided than when she did not, whereas male perceivers eager to follow a communal norm were more attracted to her when she did not reciprocate their benefit than when she did (Clark & Mills, 1979).

Environmental Factors: What Situational Circumstances Promote Attraction? In addition to effects of the target, the perceiver, and their interaction, perceivers' attraction to targets is also influenced by environmental factors. In this section, we review attraction predictors emerging from the social *environment* and the *physical environment*.

THE SOCIAL ENVIRONMENT One aspect of the social environment that influences the degree to which perceivers are attracted to a given target is the degree to which the members of the perceivers' *social network* like or dislike that target. Early research on a phenomenon entitled "the Romeo and Juliet effect" built on the theory of psychological reactance (Brehm, 1966) to suggest that perceivers (e.g., teenagers) become increasingly attracted to a given target when members of their social network (e.g., parents) disapprove of the relationship (Driscoll, Davis, & Lipetz, 1972). Subsequent research, however, has failed to support this intriguing idea. Indeed, just the opposite is frequently the case: Perceivers experience greater attraction to a given target when members of their social network approve of the relationship (e.g., Sprecher & Felmlee, 1992), although some evidence suggests that the effect of perceivers' social networks on their relationship with a given target is stronger for female than for male perceivers (Leslie, Huston, & Johnson, 1986; Sprecher & Felmlee, 1992). Indeed, female perceivers appear to be more influenced than male perceivers by the opinions of others, even when these others are strangers (Graziano, Jensen-Campbell, Schebilske, & Lundgren, 1993).

A second aspect of the social environment that influences attraction pertains to *cultural norms*, which refer to widespread beliefs within certain cultural or historical contexts about who is attractive. For example, although women are more attracted than men to potential romantic partners who have good earning prospects and are older than themselves, and men are more attracted than women to potential romantic partners who are physically attractive and are younger than themselves (Buss, 1989), these sex differences are substantially weaker to the extent that the power imbalance between men and women within the culture is smaller (Eagly & Wood, 1999).

Another line of research also examines cross-cultural differences, although it does not examine cultural norms, per se. It links the amount of food that exists in a certain culture to men's preferences for women's body shapes. Males prefer heavier women to lighter women when food is in short supply, and they prefer lighter women to heavier women during times of plenty (Tovée, Swami, Furnham, & Mangalparsad, 2006). Evidence that such effects are due to hunger,

rather than to some other factor confounded with food supplies, comes from recent studies demonstrating that men rated heavier women as more attractive when the men were entering the campus dining hall for dinner (when they were hungry) than when they were leaving after eating dinner (when they were satiated) (Nelson & Morrison, 2005; Swami & Tovée, 2006).

A third aspect of the social environment that influences attraction is *perceived scarcity*, which refers to perceivers' subjective experience that access to potential targets is dwindling. In a first demonstration of this effect, bar patrons reported on the physical attractiveness of opposite-sex patrons at 9:00 pm, 10:30 pm, and 12:00 am, with this last assessment shortly before the 12:30 am closing time (Pennebaker et al., 1979). Perceivers viewed the targets in the bar as increasingly attractive as closing time approached. Although one study failed to replicate this effect (Sprecher et al., 1984), several other studies have replicated it (e.g., Gladue & Delaney, 1990), especially for perceivers who were not currently in a relationship (Madey et al., 1996).

THE PHYSICAL ENVIRONMENT One of the most extensively researched aspects of the physical environment that predicts attraction is *proximity*, which refers to the degree to which the perceiver and target are close to rather than far from each other in physical space. A famous early demonstration of the power of proximity comes from a study of a campus housing complex at the Massachusetts Institute of Technology (Festinger et al., 1950). This study not only demonstrated that people are more likely to befriend others who live near them than those who do not, it also spoke to the large magnitude of the effect. For example, people were about twice as likely to become close friends with somebody who lived next door to them (approximately 20 feet away) than to somebody who lived two doors down (approximately 40 feet away). Although the proximity effect has been replicated many times (e.g., Ebbeson, Kjos, & Konečni, 1976; Latané, Liu, Nowak, Bonevento, & Zheng, 1995; Nahemow & Lawton, 1975; Segal, 1974), even in initial encounters (Back, Schmulke, & Egloff, 2008), proximity does not always lead to liking; indeed, people are also much more likely to be enemies with somebody who lives near them than with somebody who lives farther away (Ebbeson et al., 1976).

In addition to these robust effects of physical proximity, a broad range of environmental variables influences attraction by making the context of the social interaction pleasant as opposed to unpleasant. As mentioned previously, perceivers experience greater attraction to targets when interacting with them in a comfortable room than in a hot or crowded room (Griffitt, 1970; Griffitt & Veitch, 1971). The same goes for a number of additional environmental factors, including listening to pleasant or unpleasant music (May & Hamilton, 1980).

Rejection

We now turn from attraction to rejection. This 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 as 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 are rejected.

Methods of Rejection Research

Rejection research emerged in a rather brief time, as several different strands converged to stimulate research. Baumeister and Leary's (1995) review article 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, 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 Cacioppo and colleagues, later summarized in his 2008 book.

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 we should be cautious in generalizing to cases of rejection by important, long-term relationship partners). In one method (e.g., Leary, Tambor, Terdal, & Downs, 1995; Nezlek, Kowalski, Leary, Blevins, & Holgate, 1997; Twenge, Baumeister, Tice, & Stucke, 2001), a group of strangers engages in a get-acquainted conversation and then is told that they will pair off for the next part. 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 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 (2001) has argued all along 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 recent 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 et al., 1980). There are also scales to measure the 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 that of Baumeister and Leary (1995), have not really discovered or posited a new motivation but rather have 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, Tambor, Terdal, & Downs, 1995; also Leary & Baumeister, 2000).

Self-esteem is puzzling because people seem highly motivated to maintain and enhance self-esteem, yet high self-esteem has relatively few palpable advantages. Why do people care so much about something that has so little apparent benefit? Leary's answer is that self-esteem, albeit perhaps not important in and of itself, is closely tied to something that is important, namely belongingness. According to him, self-esteem functions as a sociometer—an inner gauge of our likelihood of having sufficient social ties. High self-esteem is generally associated with believing that you 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 to want to connect with others. Some people may seem to like to be alone, but usually still desire to have 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 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, it could be argued that the problems led to the rejection, but other cases 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). 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

We now explore the consequences of attraction: What happens to people who are rejected? We divide this exploration into sections on (1) behavioral consequences; (2) cognitive, motivational, and self-regulatory consequences; and (3) emotional consequences.

Behavioral Consequences Rejection produces strong effects on behavior. Many published studies report effects larger than a standard deviation, which is quite unusual for laboratory experiments in social psychology. Rejection studies produce large, significant effects. Most likely, the strong effects reflect the high motivational importance of belongingness.

The potential link between feeling rejected and turning violent gained national prominence from widely publicized episodes in which high school students brought guns to school and fired on classmates and teachers. A compilation and analysis of these cases indicated that most of the school 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, Baumeister, Tice, & Stucke, 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).

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 even more 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, Gardner, Pickett, and Brewer (2000) administered a laboratory rejection experience and then let participants read other people's diaries. The rejected persons showed relatively greater 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 seek 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 Maner, DeWall, Baumeister, and 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 others do not seem promising, the rejected people may be especially antisocial.

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

Rejection appears to affect cognitive processes other than attention to friendliness. It seems to have a strong, though presumably temporary, effect on our intelligence. One series of studies found substantial drops in IQ scores among rejected persons (Baumeister, Twenge, & Nuss, 2002). Perhaps surprisingly, rejected people did quite well with simple intellectual tasks, being 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 impairs 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 and not bother putting forth the effort needed to think for themselves.

Self-regulation also appears to be impaired among rejected persons, and these findings reinforce the theory that rejected people do not want to bother. 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 the participant puts on headphones, and different voices are heard in different ears, so that the person must screen out one voice and focus 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, for example, when a cash incentive is available for good performance.

These studies suggest that humans want to be accepted but recognize that they have to pay a price for belongingness, such as exerting themselves to self-regulate and behave properly. If they believe they are being rejected, they lose

their willingness to pay that price and make those efforts. Hence they become passive, lazy, and uncooperative. But if they see an opportunity to be accepted again, they are quite capable of pulling themselves together and making the right efforts.

Emotional Consequences Rejection makes people feel bad. A literature review on anxiety concluded that the most common and widespread cause is 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, and anxiety), whereas any event that conveys social acceptance, such as forming or solidifying social bonds, typically results in positive emotion.

The link between rejection and emotion seemed obvious. 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 (often large) 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. A study of what people mean when they say their "feelings are hurt" found that hurt feelings essentially signify being rejected or excluded, or at least a step in that direction (Leary, Springer, Negel, Ansell, & Evans, 1998). In this case, whether the person intended to hurt you may be irrelevant. 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). (Your feelings may be hurt when someone's actions imply not she does not value her relationship with you.) 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, Lieberman, & Williams, 2003).

Perhaps most remarkably, a review by MacDonald and 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 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 developed so that an injured animal could 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 (1998), 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 sensitivity to pain correlated closely with a lack of self-reported emotional reaction to pain. This generalized to other emotional phenomena, such as feeling sympathy for someone experiencing misfortune.

A comprehensive review of the effects of rejection was provided in a meta-analysis by Blackhart et al. (2009). Their results showed conclusively that rejection does 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 these. 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 et al. (2009) compiled data on 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 laboratory studies examined one-time, immediate reactions to rejection experiences that mainly involve strangers. Being rejected repeatedly and by people you love may be more immediately upsetting. Even the neutral reactions in the laboratory studies are likely just temporary states, akin to how the body goes into shock right after an injury but feels considerable pain later on.

All of this has made for an intriguing mixture. In the next decade there will almost certainly be further advances in exploring the inner effects of rejection.

It appears that being rejected produces an immediate reaction that is not quite what anyone expected. There is a shift away from a 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 emerge at some point, but it has been surprisingly hard to get rejected people to say that they feel really 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.

Recent work has begun to discredit the stereotype of lonely persons as social misfits or unattractive, socially inept losers. Lonely and nonlonely people are quite similar in most respects, including attractiveness, intelligence, and social skills. In fact, lonely people 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 the interaction. Lonely people do spend time with others but they typically are not satisfied with those interactions, and they come away feeling that something important was lacking (Cacioppo & Hawkley, 2005). If rejection causes loneliness, then, it is not so much an explicit refusal to have anything to do with the person, but rather a more subtle refusal to provide the kind of close relationship and meaningful interactions that the person wants.

If there is one core characteristic that seems to produce loneliness, it is that lonely people are less emotionally empathic than other people (Pickett & Gardner, 2005). That is, they seem relatively deficient in their ability to understand other people's emotional states. Even with this finding, however, it is not yet fully clear what is cause and what is effect. Conceivably the difficulty in establishing an empathic connection with another person's emotions could be the result of loneliness rather than its cause.

Once we define loneliness as a lack of certain kinds of satisfying relationships, we can begin to ask what those relationships are. Marriage and family are obviously important bonds to many people, and married people are somewhat less likely than single people to be lonely (Peplau & Perlman, 1982; Russell,

Peplau, & Cutrona, 1980). The new mobility of modern life also takes its toll in terms of loneliness; people who move far from home for college or work are more likely to be lonely (Cacioppo et al., 2000).

For people with no 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 et al., 2005). For example, men can feel a bond to their university, their employer, or even a sports team, and this helps prevent loneliness, but this 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, but they are also oriented toward large groups and organizations (Baumeister & Sommer, 1997).

Some people even form pseudorelationships 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.

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, 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 (e.g., Juvonen & Gross, 2005). The first is being aggressive. Children who do not want to risk being hurt 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. 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. 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. Children may believe that the loner is rejecting them, and so they respond by rejecting the loner in return.

The third reason is deviance. The early part of this chapter showed that similarity leads to attraction. Dissimilarity leads to rejection. Children who are different in any way 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 being different from the average or typical is enough to cause rejection.

Marrying one person may necessitate rejecting others. But which ones? A seemingly simple answer is that people reject others who do not measure up to their standards and expectations. As previously confirmed, although most people are attracted to desirable partners, they pair off with partners whose attributes, including intelligence and looks, are similar to theirs. In short, you may fall in love with a fabulous, gorgeous, wealthy person, but unless you are equally fabulous (and gorgeous and wealthy), that person will reject you, leaving you disappointed. The process may be repeated until you find someone who is about your equal. Baumeister and Wotman (1992) labeled the process "falling upward": you fall for people better than you, which leads to romantic disappointment.

A disturbing implication of falling upward is that the people who reject you must somehow be better than you. This is only partly accurate. To be sure, the more desirable partner in most mismatches rejects the less desirable one. Moreover, the first reaction to being rejected is often to view it as a negative assessment of your romantic appeal: "What's wrong with me?" But there are many sources of slippage. For one thing, most people overvalue how attractive they are, so the person who rejects you may not be objectively better—he or she merely regards himself or herself as better. For another, local variations in sex ratio change people's relative attractiveness (Guttentag & Secord, 1983). During or after a major war, for example, there is often a shortage of men at home, and the women must settle for partners far less desirable than they would otherwise expect. Furthermore, many capricious factors can influence attraction (Lykken & Tellegen, 1993). The fact that you smell a bit like someone's mother or talk like someone's ex-partner could be enough to make that person reject you, even if you are fabulous in other respects (Andersen et al., 1996).

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; see Carlston, Chapter 3, this volume). 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 is one narrow issue). In reality, she might decline the invitation because she finds him unattractive (which is a permanent, general aspect of him).

Romantic rejection sometimes involves more than declining a date. One person may have 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, 1997). Rejecters often have a difficult time refusing love that they really do not want. They feel guilty, so they 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 a response to discovering that the other person does not desire or value a connection with you to the extent that you want. Sure enough, unrequited love often precipitates feelings of low self-esteem and self-doubt among the rejected persons.

In general, rejection may not be inevitable, but it can still serve important social goals. The fact that people reject those who are different suggests a basic drive to keep the social group full of people who are alike. Like children, adults reject people who are different from them (Wright et al., 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, & Serôdio, 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, it seems that people want their groups to be homogeneous, and they reject members of the group who seem different or who act differently. Although diversity has many benefits, people still seem to feel and act as if it is best to have a group of people who are fundamentally similar. Rejection can thus be a way of strengthening the group by eliminating people who seem not to fit. People understand this and therefore may try harder to conform to the group to avoid being rejected. Even the threat of being rejected is often enough to make people behave in ways that benefit the group (Kerr et al., 2009).

Thus, rejection can serve a valuable function in 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.

Attraction and Rejection Today

Attraction research has ebbed and flowed over the past 50 years, whereas rejection research, which rose to prominence over the past 15 years, has received a steady stream of attention. Despite these different historical trajectories, both areas of research are currently flourishing. Attraction research has become increasingly influential and interdisciplinary in recent years as its interface with technology and with big business has grown. For example, economists have recently employed speed-dating (Fisman et al., 2006) and online dating (Hitsch et al., 2009) procedures to understand mate selection processes, and communications researchers have examined behavior on social networking Web sites (e.g., Facebook) to examine diverse aspects of interpersonal attraction (Tong et al., 2008; Walther et al., 2008). Rejection research has benefited from a steady stream of methodological innovations and a recent foray into applying emerging theory to real-world cases of rejection, including the application to school shootings (Leary et al., 2003).

As we look to the next decade, attraction research would benefit from greater theoretical integration, and rejection research would benefit from a greater emphasis on rejection in close, long-term relationships (and perhaps from integration with relationships research on topics such as betrayal and breakup). Given the flurry of attention being paid to both topics, we anticipate that scholars will make major strides toward addressing these limitations—and toward extending these research topics in exciting new directions.

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