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References

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The Need to Belong: Desire for Interpersonal Attachments as a Fundamental Human Motivation

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The purpose of this review is to develop and evaluate the hypothesis that a need to belong is a fundamental human motivation and to propose that the need to belong can provide a point of departure for understanding and integrating a great deal of the existing literature regarding human interpersonal behavior. More precisely, the belongingness hypothesis is that human beings have a pervasive drive to form and maintain at least a minimum quantity of lasting, positive, and significant interpersonal relationships. Satisfying this drive involves two criteria: First, there is a need for frequent, affectively pleasant interactions with a few other people, and, second, these interactions must take place in the context of a temporally stable and enduring framework of affective concern for each other's welfare. Interactions with a constantly changing sequence of partners will be less satisfactory than repeated interactions with the same person(s), and relatedness without frequent contact will also be unsatisfactory. A lack of belongingness should constitute severe deprivation and cause a variety of ill effects. Furthermore, a great deal of human behavior, emotion, and thought is caused by this fundamental interpersonal motive.

The hypothesis that people are motivated to form and maintain interpersonal bonds is not new, of course. John Donne (1975) has been widely quoted for the line "No [person] is an island." In psychology, the need for interpersonal contact was asserted in several ways by Freud (e.g., 1930), although he tended to see the motive as derived from the sex drive and from the filial bond. Maslow

(1968) ranked "love and belongingness needs" in the middle of his motivational hierarchy; that is, belongingness needs do not emerge until food, hunger, safety, and other basic needs are satisfied, but they take precedence over esteem and self-actualization. Bowlby's (e.g., 1969, 1973) attachment theory also posited the need to form and maintain relationships. His early thinking followed the Freudian pattern of deriving attachment needs from the relationship to one's mother; he regarded the adult's need for attachment as an effort to recapture the intimate contact that the individual had, as an infant, with his or her mother. Horney (1945), Sullivan (1953), Fromm (1955, 1956), de Rivera (1984), Hogan (1983), Epstein (1992), Ryan (1991), Guisinger and Blatt (1994), and others have made similar suggestions. The existence of a need to belong is thus a familiar point of theory and speculation, although not all theorists have anticipated our particular formulation of this need as the combination of frequent interaction plus persistent caring. Moreover, most theorists have neglected to provide systematic empirical evaluation of this hypothesis. For example, Maslow's (1968) influential assertion of a belongingness need was accompanied by neither original data nor review of previous findings. Thus, despite frequent, speculative assertions that people need to belong, the belongingness hypothesis needs to be critically evaluated in light of empirical evidence. A main goal of the present article is to assemble a large body of empirical findings pertinent to the belongingness hypothesis to evaluate how well the hypothesis fits the data.

Another goal of this article is to demonstrate the broad applicability of the need to belong for understanding human motivation and behavior. Even though many psychological theorists have noted human affiliative tendencies in one form or another, the field as a whole has neglected the broad applicability of this need to a wide range of behaviors. Thus, for example, the motive literature has been dominated by research on the respective needs for power, achievement, intimacy, approval, and, to a lesser extent, affiliation. But the need for power may well be driven by the need to belong, as we suggest later. Likewise, people prefer achievements that are validated, recognized, and valued by other people over solitary achievements, so there may be a substantial interpersonal component behind the need for achievement. And the needs for approval and intimacy are undoubtedly linked to the fact that approval is a prerequisite for forming and maintaining social bonds, and intimacy is a defining characteristic of close relationships. The need to belong could thus be linked to all of them.

Furthermore, even a quick glance at research on social behavior from the perspective of the belongingness hypothesis raises the possibility that much of what human beings do is done in the service of belongingness. Thus, the belongingness hypothesis might have considerable value for personality and social psychology and even for psychology as a whole. As a broad integrative hypothesis, it might help rectify what some observers have criticized as fragmentation and atomization in the conceptual underpinnings of the field (see Vallacher & Nowak, 1994; West, Newsom, & Fenaughty, 1992).

At the interdisciplinary level, the belongingness hypothesis might help psychology recover from the challenge posed by cultural materialism. Cultural materialism (e.g., Harris, 1974, 1978, 1979) is based on the assumption that human culture is shaped primarily by economic needs and opportunities, and so historical, anthropological, sociological, and other cultural patterns should mainly be analyzed with reference to economic causes. In that framework, psychology is reduced to a vastly subordinate role; psychological phenomena are regarded merely as symptoms or coping mechanisms that follow from economic realities. In contrast, the belongingness hypothesis would suggest that human culture is at least partly adapted to enable people to satisfy the psychological need to live together (along with economic needs, to be sure), thereby assigning some fundamental causal power to psychological

forces. We suggest that belongingness can be almost as compelling a need as food and that human culture is significantly conditioned by the pressure to provide belongingness.

Modern personality and social psychologists have shown a pervasive reluctance to entertain sweeping generalizations and broad hypotheses. This reluctance may well be a response to speculative excesses of earlier generations of theorists, who supposedly rushed to formulate broad theories from intuition and impression. Today there may be a sense that it is more appropriate to await the passing of a substantial interval, until considerable empirical work has been done. We propose that such an interval has passed, however, making it possible to begin considering broad hypotheses in light of the evidence accumulated through the last three decades. That is what we undertake here.

Conceptual Background

Fundamental Motivations: Metatheory

Before proceeding with our examination of the need to belong, we must consider briefly the metatheoretical requirements of our hypothesis. That is, what criteria must be satisfied to conclude that the need to belong, or any other drive, is a fundamental human motivation? We suggest the following. A fundamental motivation should (a) produce effects readily under all but adverse conditions, (b) have affective consequences, (c) direct cognitive processing, (d) lead to ill effects (such as on health or adjustment) when thwarted, (e) elicit goal-oriented behavior designed to satisfy it (subject to motivational patterns such as object substitutability and satiation), (f) be universal in the sense of applying to all people, (g) not be derivative of other motives, (h) affect a broad variety of behaviors, and (i) have implications that go beyond immediate psychological functioning. We consider each of these criteria in turn.

The first criterion is that a fundamental motivation should operate in a wide variety of settings: any motive that requires highly specific or supportive circumstances to produce effects cannot properly be called fundamental. Certain circumstances may retard or prevent its operation, but in general the more widely it can produce effects, the stronger its claim to being a fundamental motivation.

The second and third criteria refer to emotional and cognitive patterns. Cognitive and emotional responses reflect subjective importance and concern, and a motivation that fails to guide emotion and cognition (at least sometimes) can hardly be considered an important one. In addition, most motivational and drive systems involve hedonic consequences that alert the individual to undesired state changes that motivate behavior to restore the desired state and whose removal serves as negative reinforcement for goal attainment.

The fourth criterion is that failure to satisfy a fundamental motivation should produce ill effects that go beyond temporary affective distress. A motivation can be considered to be fundamental only if health, adjustment, or well-being requires that it be satisfied. Also, motivations can be sorted into wants and needs, the difference being in the scope of ill effects that follow from nonsatisfaction: Unsatisfied needs should lead to pathology (medical, psychological, or behavioral), unlike unsatisfied wants. Thus, if belongingness is a need rather than simply a want, then people who lack belongingness should exhibit pathological consequences beyond mere temporary distress.

Substitution and satiation are two familiar hallmarks of motivation. If the need to belong is a fundamental need, then belonging to one group should satisfy it and hence obviate or reduce the need to belong to another group. People may be driven to form social bonds until they have a certain number, whereafter

the drive to form attachments would presumably subside. Furthermore, attachment partners should be to some degree interchangeable. Of course, this does not mean that a 20-year spouse or friend can be simply replaced with a new acquaintance. In the long run, however, a new spouse or friend should do as well as the previous one.

The sixth and seventh criteria involve universality and nonderivativeness. Any motivation that is limited to certain human beings or certain circumstances, or any motivation that is derived from another motive, cannot be regarded as fundamental. Universality can be indicated by transcending cultural boundaries. Establishing that a motive is not derivative is not easy, although path-analytic models can suggest derivative patterns. Satisfying the first criterion may also help satisfy the seventh, because if the motivation operates in a broad variety of situations without requiring particular, favorable circumstances, then it may be presumed to be fundamental. Meanwhile, if the evidence contradicts evolutionary patterns or fails to indicate physiological mechanisms, then the hypothesis of universality or innateness would lose credibility.

The eighth criterion is the ability to affect a wide and diverse assortment of behaviors. The more behaviors that appear to be influenced by a particular motive, the stronger its case for being one of the fundamental motives. Lastly, we suggest that a fundamental motive should have implications that go beyond psychological functioning. If a motivation is truly fundamental, it should influence a broad range of human activity, and hence it should be capable of offering viable and consistent interpretations of patterns observed in historical, economic, or sociological studies.

Falsification is only one relevant approach to evaluating a broad hypothesis about belongingness being a fundamental motivation. The belongingness hypothesis could indeed be falsified if it were shown, for example, that many people can live happy, healthy lives in social isolation or that many people show no cognitive or emotional responses to looming significant changes in their belongingness status. In addition to such criteria, however, hypotheses about fundamental motivations must be evaluated in terms of their capacity to interpret and explain a wide range of phenomena. Part of the value of such a theory is its capacity to provide an integrative framework, and this value is a direct function of the quantity and importance of the behavior patterns that it can explain in a consistent, intelligible fashion. We therefore pay close attention to the potential range of implications of the belongingness hypothesis, in addition to examining how many falsification tests the hypothesis has managed to survive.

The Need to Belong: Theory

In view of the metatheoretical requirements listed in the previous section, we propose that a need to belong, that is, a need to form and maintain at least a minimum quantity of interpersonal relationships, is innately prepared (and hence nearly universal) among human beings. Thus, unlike the Freudian (1930) view that regarded sexuality and aggression as the major driving psychological forces, and unlike the most ambitious behaviorist views that considered each newborn a tabula rasa, our view depicts the human being as naturally driven toward establishing and sustaining belongingness. The need to belong should therefore be found to some degree in all humans in all cultures, although naturally one would expect there to be individual differences in strength and intensity, as well as cultural and individual variations in how people express and satisfy the need. But it should prove difficult or impossible for culture to eradicate the need to belong (except perhaps for an occasional, seriously warped individual).

The innate quality presumably has an evolutionary basis. It seems clear that a desire to form and maintain social bonds would have both survival and reproductive benefits (see Ainsworth, 1989; Axelrod

& Hamilton, 1981; Barash, 1977; Bowlby, 1969; D. M. Buss, 1990, 1991; Hogan, Jones, & Cheek, 1985; Moreland, 1987). Groups can share food, provide mates, and help care for offspring (including orphans). Some survival tasks, such as hunting large animals or maintaining defensive vigilance against predatory enemies, are best accomplished by group cooperation. Children who desired to stay together with adults (and who would resist being left alone) would be more likely to survive until their reproductive years than other children because they would be more likely to receive care and food as well as protection. Cues that connote possible harm, such as illness, danger, nightfall, and disaster, seem to increase the need to be with others (see also Rofe, 1984), which again underscores the protective value of group membership. Adults who formed attachments would be more likely to reproduce than those who failed to form them, and long-term relationships would increase the chances that the offspring would reach maturity and reproduce in turn (see also Shaver, Hazan, & Bradshaw, 1988).

Competition for limited resources could also provide a powerful stimulus to forming interpersonal connections. There are several potential, although debatable, advantages to forming a group under conditions of scarcity. For example, groups may share resources and thus prevent any individual from starving (although sharing deprives other group members of some of their resources), and groups may appropriate resources from nonmembers (although there is the problem of how to distribute them in the group). What appears less debatable is the severe competitive disadvantage of the lone individual confronting a group when both want the same resource. When other people are in groups, it is vital to belong to a group oneself, particularly a group of familiar, cooperative people who care about one's welfare. Thus, an inclination to form and sustain social bonds would have important benefits of defending oneself and protecting one's resources against external threats.

The likely result of this evolutionary selection would be a set of internal mechanisms that guide individual human beings into social groups and lasting relationships. These mechanisms would presumably include a tendency to orient toward other members of the species, a tendency to experience affective distress when deprived of social contact or relationships, and a tendency to feel pleasure or positive affect from social contact and relatedness. These affective mechanisms would stimulate learning by making positive social contact reinforcing and social deprivation punishing.

Our version of the belongingness hypothesis does not regard the need as derived from a particular relationship or focused on a particular individual. In this, it differs from the early, Freudian version of Bowlby's work, in which the relationship to the mother was regarded as the cause of the desire for attachment. Thus, Bowlby suggested that adult attachments to work organizations, religious groups, or others are derived from the child's tie to mother and revolve around personal attachment to the group leader or supervisor (Bowlby, 1969, p. 207). In contrast, we propose that the need to belong can, in principle, be directed toward any other human being, and the loss of relationship with one person can to some extent be replaced by any other. The main obstacle to such substitution is that formation of new relationships takes time, such as in the gradual accumulation of intimacy and shared experience (see Sternberg, 1986, on the time course of intimacy). Social contact with a long-term intimate would therefore provide some satisfactions, including a sense of belonging, that would not be available in interactions with strangers or new acquaintances.

The belongingness hypothesis can be distinguished from a hypothesized need for mere social contact in terms of whether interactions with strangers or with people one dislikes or hates would satisfy the need. It can be distinguished from a hypothesized need for positive, pleasant social contact in terms of whether nonhostile interactions with strangers would satisfy it. The need to belong entails that

relationships are desired, so interactions with strangers would mainly be appealing as possible first steps toward long-term contacts (including practicing social skills or learning about one's capacity to attract partners), and interactions with disliked people would not satisfy it.

Additional differences between the belongingness hypothesis and attachment theory could be suggested, although it may be a matter of interpretation whether these are merely differences of emphasis or fundamental theoretical differences. In our understanding, the (very real) strengths of attachment theory are twofold. First, attachment theory has emphasized the task of elaborating individual differences in attachment style (e.g., Hazan & Shaver, 1994a, 1994b; Shaver et al., 1988), whereas we focus on the commonality of the overarching need to belong. Second, attachment theory has emphasized certain emotional needs and satisfactions implicit in certain kinds of relationships, whereas we regard it as at least plausible that the need to belong could be satisfied in other ways. For example, one might imagine a young fellow without any family or intimate relationships who is nonetheless satisfied by being heavily involved in an ideologically radical political movement. There are undoubtedly strong emotional mechanisms associated with belongingness, as we show later, but these could be understood as mediating mechanisms rather than as essential properties.

As a fundamental motivation, the need to belong should stimulate goal-directed activity designed to satisfy it. People should show tendencies to seek out interpersonal contacts and cultivate possible relationships, at least until they have reached a minimum level of social contact and relatedness. Meanwhile, social bonds should form easily, readily, and without requiring highly particular or conducive settings. (Indeed, if social attachments form through shared unpleasant experiences, contrary to what simple association models might predict, this would be especially compelling support for the belongingness hypothesis.) Cognitive activity should reflect a pervasive concern with forming and maintaining relationships. Emotional reactions should follow directly from outcomes that pertain to the need to belong. More precisely, positive affect should follow from forming and solidifying social bonds, and negative affect should ensue when relationships are broken, threatened, or refused.

If belongingness is indeed a fundamental need, then aversive reactions to a loss of belongingness should go beyond negative affect to include some types of pathology. People who are socially deprived should exhibit a variety of ill effects, such as signs of maladjustment or stress, behavioral or psychological pathology, and possibly health problems. They should also show an increase in goal-directed activity aimed at forming relationships.

In addition, the belongingness hypothesis entails that people should strive to achieve a certain minimum quantity and quality of social contacts but that once this level is surpassed, the motivation should diminish. The need is presumably for a certain minimum number of bonds and quantity of interaction. The formation of further social attachments beyond that minimal level should be subject to diminishing returns; that is, people should experience less satisfaction on formation of such extra relationships, as well as less distress on terminating them. Satiation patterns should be evident, such that people who are well enmeshed in social relationships would be less inclined to seek and form additional bonds than would people who are socially deprived. Relationships should substitute for each other, to some extent, as would be indicated by effective replacement of lost relationship partners and by a capacity for social relatedness in one sphere to overcome potential ill effects of social deprivation in another sphere (e.g., if strong family ties compensate for aloneness at work).

We propose that the need to belong has two main features. First, people need frequent personal contacts or interactions with the other person. Ideally, these interactions would be affectively positive or pleasant, but it is mainly important that the majority be free from conflict and negative affect.

Second, people need to perceive that there is an interpersonal bond or relationship marked by stability, affective concern, and continuation into the foreseeable future. This aspect provides a relational context to one's interactions with the other person, and so the perception of the bond is essential for satisfying the need to belong. When compared with essentially identical interactions with other people with whom one is not connected, a strictly behavioral record might reveal nothing special or rewarding about these interactions. Yet an interaction with a person in the context of an ongoing relationship is subjectively different from and often more rewarding than an interaction with a stranger or casual acquaintance. To satisfy the need to belong, the person must believe that the other cares about his or her welfare and likes (or loves) him or her.

Ideally this concern would be mutual, so that the person has reciprocal feelings about the other. M. S. Clark and her colleagues (e.g., Clark, 1984; Clark & Mills, 1979; Clark, Mills, & Corcoran, 1989; Clark, Mills, & Powell, 1986) have shown that a framework of mutual concern produces a relationship qualitatively different from one based on self-interested social exchange. Still, it is plausible that mutuality is merely desirable rather than essential. The decisive aspect may be the perception that one is the recipient of the other's lasting concern.

Viewed in this way, the need to belong is something other than a need for mere affiliation. Frequent contacts with nonsupportive, indifferent others can go only so far in promoting one's general well-being and would do little to satisfy the need to belong. Conversely, relationships characterized by strong feelings of attachment, intimacy, or commitment but lacking regular contact will also fail to satisfy the need. Simply knowing that a bond exists may be emotionally reassuring, yet it would not provide full belongingness if one does not interact with the other person. Thus, we view the need to belong as something more than either a need for affiliation or a need for intimate attachment.

The notion that people need relationships characterized by both regular contact and an ongoing bond has been anticipated to some degree by Weiss (1973; see also Shaver & Buhrmester, 1983), who suggested that feelings of loneliness can be precipitated either by an insufficient amount of social contact (social loneliness) or by a lack of meaningful, intimate relatedness (emotional loneliness). Weiss's distinction has been criticized on conceptual and empirical grounds (e.g., Paloutzian & Janigian, 1987; Perlman, 1987), and efforts to operationalize and test the distinction have met with mixed results (DiTommaso & Spinner, 1993; Saklofske & Yackulic, 1989; Vaux, 1988). In our view, the difficulty with this distinction arises from the assumption that people have a need for mere social contact and a separate need for intimate relationships. Rather, the need is for regular social contact with those to whom one feels connected. From an evolutionary perspective, relationships characterized by both of these features would have greater survival and reproductive value than would relationships characterized by only one. Accordingly, the need to belong should be marked by both aspects.

Review of Empirical Findings

We searched the empirical literature of social and personality psychology for findings relevant to the belongingness hypothesis. The following sections summarize the evidence we found pertaining to the series of predictions about belongingness.

Forming Social Bonds

A first prediction of the belongingness hypothesis is that social bonds should form relatively easily, without requiring specially conducive circumstances. Such evidence not only would attest to the presence and power of the need to belong but would suggest that the need is not a derivative of other needs (insofar as it is not limited to circumstances that meet other requirements or follow from other events).

There is abundant evidence that social bonds form easily. Indeed, people in every society on earth belong to small primary groups that involve face-to-face, personal interactions (Mann, 1980). The anthropologist Coon (1946) asserted that natural groups are characteristic of all human beings. Societies differ in the type, number, and permanence of the groups that people join, but people of all cultures quite naturally form groups.

The classic Robbers Cave study conducted by Sherif, Harvey, White, Hood, and Sherif (1961/1988) showed that when previously unacquainted boys were randomly assigned to newly created groups, strong loyalty and group identification ties ensued rapidly. In fact, later in that study, the two strongly opposed groups were recombined into a single group with cooperative goals, and emotional and behavioral patterns quickly accommodated to the new group (although the prior antagonistic identifications did hamper the process).

The tendency for laboratory or experimentally created groups to quickly become cohesive has also been noted in the *minimal intergroup* situation (Brewer, 1979). Tajfel and his colleagues (Billig & Tajfel, 1973; Tajfel, 1970; Tajfel & Billig, 1974; Tajfel, Flament, Billig, & Bundy, 1971) showed that assigning participants to categories on a seemingly arbitrary basis was sufficient to cause them to allocate greater rewards to in-group members than to out-group members. Indeed, the original goal of Tajfel et al. (1971) was not to study group formation but to understand the causes of in-group favoritism. To do this, they sought to set up an experimental group that would be so trivial that no favoritism would be found, intending then to add other variables progressively so as to determine at what point favoritism would start. To their surprise, however, in-group favoritism appeared at once, even in the minimal and supposedly trivial situation (see also Turner, 1985).

This preferential treatment of in-group members does not appear to be due to inferred self-interest or to issues of novelty and uncertainty about the task (Brewer & Silver, 1978; Tajfel, 1970; Tajfel & Billig, 1974). Inferred similarity of self to in-group members was a viable explanation for many of the early findings, but Locksley, Ortiz, and Hepburn (1980) ruled this out by showing that people show in-group favoritism even when they have been assigned to groups by a random lottery. Thus, patterns of in-group favoritism, such as sharing rewards and categorizing others relative to the group, appeared quite readily, even in the absence of experiences designed to bond people to the group emotionally or materially.

Several other studies suggest how little it takes (other than frequent contact) to create social attachments. Bowlby (1969) noted that infants form attachments to caregivers very early in life, long before babies are able to calculate benefits or even speak. Festinger, Schachter, and Back (1950) found that mere proximity was a potent factor in relationship formation; people seemed to develop social bonds with each other simply because they lived near each other. Nahemow and Lawton (1975) replicated those findings and also showed that pairs of best friends who differed by age or race were particularly likely to have lived very close together, suggesting that extreme proximity may overcome

tendencies to bond with similar others. Wilder and Thompson (1980) showed that people seem to form favorable views toward whomever they spend time with, even if these others are members of a previously disliked or stereotyped out-group. In their study, intergroup biases decreased as contact with members of the out-groups increased (and as in-group contact decreased).

We noted that the formation of social attachments under adverse circumstances would be especially compelling evidence because it avoids the alternative explanations based on classical conditioning (i.e., that positive associations breed attraction). Latane, Eckman, and Joy (1966) found that participants who experienced electric shock together tended to like each other more than control participants who did not experience shock, although the effect was significant only among firstborns. Kenrick and Johnson (1979) found that participants rated each other more positively in the presence of aversive than nonaversive noise. Elder and Clipp (1988) compared the persistence of attachments among military veterans and found that the greatest persistence occurred among groups that had undergone heavy combat resulting in the deaths of some friends and comrades. Although it would be rash to suggest that all shared negative experiences increase attraction, it does appear that positive bonding will occur even under adverse circumstances.

The development of interpersonal attraction under fearful circumstances has been explained in terms of both misattribution (i.e., people may misinterpret their anxious arousal as attraction to another person) and reinforcement theory (i.e., when the presence of some other person reduces one's distress, a positive emotional response becomes associated with that person; Kenrick & Cialdini, 1977). The misattribution explanation is largely irrelevant to the belongingness hypothesis, but the reinforcement explanation is germane. Specifically, although others may reduce one's distress through various routes (such as distraction, humor, or reassurance), evidence suggests strongly that the mere presence of other people can be comforting (Schachter, 1959). Such effects may well be conditioned through years of experience with supportive others, but they also may indicate that threatening events stimulate the need to belong.

The fact that people sometimes form attachments with former rivals or opponents is itself a meaningful indicator of a general inclination to form bonds. Cognitive consistency pressures and affective memories would militate against forming positive social bonds with people who have been rivals or opponents. Yet, as we have already noted, the Robbers Cave study (Sherif et al., 1961/1988) showed that people could join and work together with others who had been bitterly opposed very recently, and Wilder and Thompson (1980) showed that social contact could overcome established intergroup prejudices and stereotypes. Orbell, van de Kragt, and Dawes (1988) likewise showed that impulses toward forming positive attachments could overcome oppositional patterns. In their study using the prisoner's dilemma game, having a discussion period led to decreased competition and increased cooperation, as a result of either the formation of a group identity that joined the potential rivals together or explicit agreements to cooperate. Thus, belongingness motivations appear to be able to overcome some antagonistic, competitive, or divisive tendencies.

Similar shifts have been suggested by M. S. Clark (1984, 1986; Clark, Mills, & Powell, 1986; Clark, Ouellette, Powell, & Milberg, 1987), who showed that people move toward a communal orientation when there is a chance to form a relationship. When participants were confronted with a person who seemingly would not be amenable to relationship formation (i.e., because she was already married), they interacted with her on the basis of norms of equitable exchange and individuality; when they

believed she would be a possible relationship partner, however, they interacted with her on a communal basis (i.e., mutuality and sharing, without respect to individual equity concerns).

Critical assessment

The remarkable ease with which social bonds form has been shown with experimental methods and confirmed by other methods. The main limitation would be that people do not always form relationships with all available or proximal others, which could mean that satiation processes limit the number of relationships people seek and which also indicates that other factors and processes affect the formation of relationships. Some patterns (e.g., in-group favoritism in minimal groups) have been well replicated with careful efforts to rule out alternative explanations.

Conclusion

In brief, people seem widely and strongly inclined to form social relationships quite easily in the absence of any special set of eliciting circumstances or ulterior motives. Friendships and group allegiance seem to arise spontaneously and readily, without needing evidence of material advantage or inferred similarity. Not only do relationships emerge quite naturally, but people invest a great deal of time and effort in fostering supportive relationships with others. External threat seems to increase the tendency to form strong bonds.

Not Breaking Bonds

The belongingness hypothesis predicts that people should generally be at least as reluctant to break social bonds as they are eager to form them in the first place. A variety of patterns supports the view that people try to preserve relationships and avoid ending them. In fact, Hazan and Shaver (1994a, p. 14) recently concluded that the tendency for human beings to respond with distress and protest to the end of a relationship is nearly universal, even across different cultures and across the age span.

Some relationships are limited in time by external factors, and so these are logically the first place to look for evidence that people show distress and resistance to breaking bonds. Encounter groups and training groups, for example, are often convened with the explicit understanding that the meetings will stop at a certain point in the future. Even so, it is a familiar observation in the empirical literature (e.g., Egan, 1970; Lacoursiere, 1980; Lieberman, Yalom, & Miles, 1973) that the members of such groups resist the notion that the group will dissolve. Even though the group's purpose may have been fulfilled, the participants want to hold on to the social bonds and relationships they have formed with each other. They promise individually and sometimes collectively to stay in touch with each other, they plan for reunions, and they take other steps to ensure a continuity of future contacts. In actuality, only a small minority of these envisioned reunions or contacts take place, and so the widespread exercise of making them can be regarded as a symptom of resistance to the threatened dissolution (Lacoursiere, 1980, p. 216).

Other relationships are limited in time by external transitions such as graduating from college, moving to a different city, or getting a new job. As such transitions approach, people commonly get together formally and informally and promise to remain in contact, to share meals or other social occasions together, to write and call each other, and to continue the relationship in other ways. They also cry or show other signs of distress over the impending separation (Bridges, 1980). These patterns seem to occur even if the dissolving relationship (e.g., with neighbors) had no important practical or instrumental function and there is no realistic likelihood of further contact.

More generally, many social institutions and behavior patterns seem to serve a need to preserve at least the appearance of social attachment in the absence of actual, continued interaction. Reunions constitute an occasion for people to see former acquaintances. The massive exchange of greeting cards during the Christmas holiday season includes many cases in which the card is the sole contact that two people have had during the entire year, but people still resist dropping each other's name from the mailing list because to do so signifies a final dissolution of the social bond. In fact, most people will send Christmas cards to perfect strangers from whom they receive cards (Kunz & Woolcott, 1976). People seem not to want to risk damaging a relationship even if they do not know the identity of the other person!

Likewise, social rituals involving greetings and farewells serve to assure others of the continuation of one's relationships with them. Many greetings, particularly those directed at family members and close friends, seem designed to indicate that one's relationship has remained intact since the last contact, and farewells often include some hint that the relationship will be maintained until the people see one another again (Goffman, 1971). The importance of such rituals in the maintenance of belongingness is reflected in the distress people sometimes experience when they feel that another's greeting is inadequately warm or that the other's farewell expresses insufficient concern about the impending separation.

In many cases, people seem reluctant to dissolve even bad or destructive relationships. The apparent unwillingness of many women to leave abusive, battering spouses or boyfriends (Roy, 1977; Strube, 1988) has prompted several generations of speculative explanations, ranging from masochistic or self-destructive liking for abuse to calculations of economic self-interest that supposedly override considerations of physical harm. The belongingness hypothesis offers yet one more potential perspective: The unwillingness to leave an abusive intimate partner is another manifestation of the strength of the need to belong and of the resulting reluctance to break social bonds. The fact that people resist breaking off an attachment that causes pain attests to how deeply rooted and powerful the need to belong is.

Moreover, when people do decide to break off an intimate relationship, they typically experience considerable distress over the dissolution (which we cover in more detail in the later section on emotion). This is ironic: Although goal attainment is usually marked by positive affect such as satisfaction and joy, attaining the goal of getting a divorce is generally accompanied by negative affect. To be sure, in some cases the distress over divorce is accompanied by an admixture of positive affect, but the negative affect nonetheless indicates the resistance to breaking the bond.

It is also relevant and noteworthy that the social bond often continues despite the divorce. In her study on divorce, Vaughan (1986) concluded that "in most cases [marital] relationships don't end. They change, but they don't end" (p. 282). Weiss (1979) also found that some form of (often ambivalent) attachment persists after divorce. The persistence of intimate relationships past the occasion of mutually agreed and formally institutionalized dissolution may be yet another indication of people's reluctance to break social bonds.

Critical assessment

Because ethical and practical constraints prevent laboratory experimentation on the ending of significant relationships, the evidence in this section was drawn from observational studies and other methods, and so the hypothesis of resistance to relationship dissolution is not as conclusively supported as might be desired. Alternative explanations exist for some of the findings. For example, the persistence of

relatedness after divorce is partly due to ongoing practical concerns, such as joint responsibility for child care; although Vaughan (1986) was emphatic in asserting that such pragmatic concerns fall far short of explaining the extent of continuing attachments, she was vague about the evidence to back up her assertion. Also, as we noted, the tendency for battered women to return to their abusive partners has been explained in many ways, and the hypothesized reluctance to break off a relationship is only one of them.

On the positive side, however, the persistence of such bonds has been observed by a variety of researchers. The fact that these researchers are from different disciplines suggests that these conclusions do not stem from a single methodological or theoretical bias. More systematic research on possible boundary and limiting conditions of the resistance to dissolve bonds would be desirable.

Conclusion

Despite some methodological weaknesses and ambiguities, the weight of the evidence does favor the conclusion that people strongly and generally resist the dissolution of relationships and social bonds. Moreover, this resistance appears to go well beyond rational considerations of practical or material advantage.

Cognition

Intelligent thought is generally recognized as the most important adaptive trait among human beings, and so it seems reasonable to assume that issues of fundamental concern and importance are likely to be the focus of cognitive activity. The belongingness hypothesis therefore would predict that people will devote considerable cognitive processing to interpersonal interactions and relationships.

Basic patterns of thought appear to reflect a fundamental concern with social relationships. Sedikides, Olsen, and Reis (1993) showed that relationships are natural categories; that is, people spontaneously classify incoming information in terms of social relationships. Participants stored information about relationship partners together, and they did this more for strong, close relationships (marriage) than for weak or distant ones (e.g., acquaintanceship). Pryor and Ostrom (1981) showed that people use the individual person as a cognitive unit of analysis for familiar people more than for unfamiliar people. These researchers began by questioning the basic assumption that the person is the fundamental unit of social perception. That is, information is not necessarily or inherently processed and stored in memory on a person-by-person basis, but it is, in fact, processed and stored on such a basis when it pertains to significant others. Ostrom, Carpenter, Sedikides, and Li (1993) provided evidence that information about out-group members tends to be stored and organized on the basis of attribute categories (such as traits, preferences, and duties), whereas in-group information is processed on the basis of person categories. Thus, social bonds create a pattern in cognitive processing that gives priority to organizing information on the basis of the person with whom one has some sort of connection.

Several studies have pursued the notion that people process information about close relationship partners differently from the way they process information about strangers or distant acquaintances. For example, research has shown that, when a group of people take turns reading words aloud, they each have high recall for the words they personally speak but have poor recall for the words preceding and following their performance. Brenner (1976) found that this next-in-line effect occurs not only for one's own performance but also for words spoken by one's dating partner (and the words immediately preceding and following).

In a series of studies, Aron, Aron, Tudor, and Nelson (1991) showed that close relationship partners, unlike strangers, have cognitive effects similar to those of the self. Thus, when people form an image of themselves or their mothers interacting with some object, they have more difficulty recalling that object than if they imagined a famous but personally unacquainted person interacting with that same object. In another study, participants had more difficulty in making me-not me judgments about traits on which they differed from their spouse than in making judgments about traits on which they resembled the spouse. These results suggest that cognitive processes tend to blur the boundaries between relationship partners and the self, in the form of "including [the] other in the self" (p. 241). In short, these studies confirm that information about relationship partners is singled out for special processing, and they raise the possibility that the need to belong leads to a cognitive merging of self with particular other people. Such patterns of subsuming the individual in the interpersonal unit indicate the importance of these relationships.

Many of the special biases that people exhibit for processing information in ways that favor and flatter themselves are extended to partners in close relationships. Fincham, Beach, and Baucom (1987) showed that self-serving biases that take credit for success and refuse blame for failure operate just as strongly—or even more strongly—when people interpret their spouses' outcomes as when they interpret their own outcomes. That is, events are interpreted in a way that is maximally flattering to the spouse, just as they are interpreted in ways that enhance and protect the self. (These patterns are extended only to partners in good, strong, happy relationships, however; high marital distress is correlated with a breakdown in these partner-serving attributions.)

Likewise, the "illusion of unique invulnerability" (Perloff & Fetzner, 1986) turns out not to be as unique as first thought. Although people are more extremely and unrealistically optimistic about themselves than about some vague target such as the average person, they are equally optimistic about their closest friends and family members. That is, they think that bad things are not as likely to happen either to themselves or to their close friends as to strangers or to a hypothetical average person. Along the same lines, Brown (1986) showed that people (particularly those with high self-esteem) tend to extend self-serving biases to their friends. Specifically, people rate both self and a same-sex friend more favorably than they rate people in general.

Group memberships also appear to exert important influences on cognitive patterns. People expect more favorable and fewer objectionable actions by their in-group than by out-group members, and these expectations bias information processing and memory, leading people to forget the bad things (relative to good things) that their fellow in-group members do (Howard & Rothbart, 1980). People also make group-serving or "sociocentric" attributions for the performance of the groups to which they belong. Members of a successful group may make group-serving attributions that put the entire group in a good light, whereas, after failure, group members may join together in absolving one another of responsibility (Forsyth & Schlenker, 1977; Leary & Forsyth, 1987; Zander, 1971).

Linville and Jones (1980) showed that people tend to process information about out-group members in extreme, black-and-white, simplistic, polarized ways, whereas similar information about members of their own group is processed in a more complex fashion. Thus, the mere existence of a social bond leads to more complex (and sometimes more biased) information processing.

Of broader interest is evidence that belongingness can affect how people process information about nearly all categories of stimuli in the social world. Wegner (1986) noted the irony that traditional theories

of the "group mind" tended to assume that all members would essentially think the same thing, because much more far-reaching advantages could be realized through a group mind if each member was responsible for different information, thereby enabling the group to process considerably more information than any one person could. Wegner went on to propose that *transactive memory* processes operate in close relationships and groups by assigning each person a significant category of expertise, with the result that each person becomes expert in one or a few areas and simply consults others when alternative areas come up. An empirical study conducted by Wegner, Erber, and Raymond (1991) supported the transactive memory hypothesis by showing that partners in close relationships apparently have established procedures for determining which person should remember which information. Participants were people in dating couples who were paired either with their partner or with a stranger. The preexisting couples showed better memory for experimental stimuli than the impromptu assigned couples, except when the researchers assigned people at random to be the expert responsible for various categories of stimuli. In this latter condition, apparently, the assignment disrupted the couples' preexisting system and hence impaired the processing of information.

Another broad and very basic issue is how often interpersonal belongingness is used as an interpretive category. C. A. Anderson (e.g., 1991) sought to establish the fundamental dimensions people use for making attributions about the causes of events. His study coded participants' attributional activity along 13 dimensions, including all of the ones featured in the major attributional theories (e.g., locus, stability, globality, and controllability). To his surprise, however, the strongest single dimension was what he called *interpersonalness*, which was defined as the degree to which the causes of the focal event reflected on the relationship between the individual attributor and other people (e.g., doing something because one is married). Thus, although interpersonalness was not a central concern of his investigation (because the major attribution theories had largely ignored it), it emerged as a major dimension in the way people normally think about and interpret the causes of events. The unexpected emergence of interpersonalness as a powerful fundamental dimension of causal attribution is consistent with the view that belongingness is one of humanity's basic concerns.

Thus far we have provided evidence that interpersonal relationships are centrally important in the way people think. Additional predictions about cognitive activity can be derived from the belongingness hypothesis. Although the evidence is consistent with these predictions, it tends to be subject to alternative explanations based on short-term, pragmatic concerns, so it is less compelling for present purposes. We include brief coverage for the sake of thoroughness.

Clearly, one would predict, on the basis of a need to belong, that people should tend to think particularly about actual and potential relationship partners more than about other people. This would be reflected in increased cognitive processing caused by the expectation of future or further interactions, because these conditions hold the possibility of forming a relationship. Devine, Sedikides, and Fuhrman (1989) confronted participants with advance information about various stimulus persons and found that this information received more thorough and detailed processing when it pertained to a future interaction partner. Monson, Keel, Stephens, and Genung (1982) found that people made more extreme—and more valid—trait attributions from identical information when it pertained to a future interaction partner than when it pertained to someone with whom no interaction was anticipated. Erber and Fiske (1984) showed that interpersonal dependency (outcome dependency) overcame the usual tendency to ignore information that runs counter to expectations. When participants were outcome dependent on the confederate, they paid extra attention to inconsistent information about the confederate and seemed to

think more in terms of dispositional attributions about the partner. Thus, belonging to another person changes the way one processes information about that person.

Some of these interaction effects could be interpreted as guided by short-term concerns. Still, the prospect of forming a relationship with a recently met person appears to be sufficient to alter the way people process the interaction. M. S. Clark (1984) showed that people keep track of information differently when the interaction partner is a potential relationship partner. Furthermore, recent work by Tice, Butler, Muraven, and Stillwell (1994) showed that when people were interacting with friends as opposed to strangers, they changed the way they presented information about themselves (i.e., they became more modest). Moreover, the way they encoded and recalled the interaction depended on the relationship: Memory was best if one had been modest with friends or self-enhancing with strangers, and otherwise it was impaired.

Critical assessment

The evidence that interpersonal concerns affect cognitive processing is methodologically strong and extensive. A broad variety of experimental procedures has been involved in demonstrating such effects. For present purposes, the main critique would be that some of the studies have not been directly concerned with close relationships. Some have shown that the expectation of interaction with a stranger or new acquaintance is sufficient to alter cognitive processing. Although it is reasonable to infer that people regard meeting new people as the first step in possible relationship formation (perhaps especially among the young adult populations who constitute most of the experimental samples), this inference requires further validation before one can have full confidence in interpreting those findings as evidence for the need to belong, because short-term concerns of practical or material advantage may also play a role in some such situations.

Nonetheless, many of the findings reviewed in this section do pertain to close relationship partners, and there is evidence that information pertaining to interaction partners is processed differently depending on its relevance to lasting relationships. It is thus quite clear that relatedness affects cognitive processing; only the extent of that influence and some of its processes are still open to debate.

Conclusion

Concern with belongingness appears to be a powerful factor shaping human thought. People interpret situations and events with regard to their implications for relationships, and they think more thoroughly about relationship (and interaction) partners than about other people. Moreover, the special patterns of processing information about the self are sometimes used for information about relationship partners as well. Thus, both actual and potential bonds exert substantial effects on how people think.

Emotion

The main emotional implication of the belongingness hypothesis is that real, potential, or imagined changes in one's belongingness status will produce emotional responses, with positive affect linked to increases in belongingness and negative affect linked to decreases in it. Also, stable or chronic conditions of high belongingness should produce a general abundance of positive affect, whereas chronic deprivation should produce a tendency toward abundant negative affect.

Positive affect

In general, the formation of social bonds is associated with positive emotions. Perhaps the prototype of relationship formation is the experience of falling in love, which is typically marked by periods of intense bliss and joy, at least if the love is mutual (e.g., Sternberg, 1986). When love arises without belongingness, as in unrequited love, the result is typically distress and disappointment (Baumeister & Wotman, 1992). Belongingness is thus crucial if love is to produce bliss.

Likewise, occasions such as new employment, childbirth, fraternity or sorority pledging, and religious conversion, all of which are based on the entry into new relationships and the formation of new social bonds, are typically marked by positive emotions and celebrated as joyous. Childbirth is especially significant in this regard because the data show that parenthood reduces happiness and increases stress, strain, and marital dissatisfaction (e.g., S. A. Anderson, Russell, & Schumm, 1983; Campbell, Converse, & Rodgers, 1976; Glenn & McLanahan, 1982; for reviews, see Baumeister, 1991; Bernard, 1982; Campbell, 1981; Spanier & Lewis, 1980), yet people nonetheless retain a positive image of it, celebrate it, and feel positive about it, both in advance and in retrospect. It is plausible that the formation of the new social bond is directly responsible for the joy and positive feelings, whereas the negative aspects and feelings associated with parenthood arise indirectly from the hassles, conflicts, and stresses that accompany the social bond.

If the formation of bonds is one occasion for joy, a second occasion comes when the bond is formalized into a more recognizably permanent status. A wedding, for example, does not create a new relationship, at least in modern Western cultures, because the bride and groom typically have known each other intimately for some time. The wedding does, however, signify an increase in commitment to maintaining the relationship permanently, and the joyful celebration of the wedding can be regarded as an affective consequence of solidifying the social bond. It is noteworthy that many traditional wedding vows include an actuarially implausible pledge that the marriage will never end ("till death do us part"). In essence, such vows are an institutionalized mechanism for committing people to meet their spouse's belongingness needs.

Although we have emphasized the view of affect as a result of attachment, positive affect may in turn help solidify social attachment. Probably the most influential view of this sort was developed by Shaver et al. (1988), who portrayed romantic love as a kind of glue designed by nature to solidify the attachment between two adults whose interaction is likely to lead to parenting. In their view, love elaborates on sexual attraction in a way that will hold the couple together when their sexual intercourse leads to reproduction. Along the same lines, various studies have found that positive affective experiences increase attraction and solidify social bonds (L. A. Clark & Watson, 1988; Gouaux, 1971; May & Hamilton, 1980; Veitch & Griffitt, 1976). Moreland (1987) concluded that the development of shared emotions is one of the principal causes of the formation of small groups.

More generally, happiness in life is strongly correlated with having some close personal relationships. Research suggests that it does not seem to make a great deal of difference what sort of relationship one has, but the absence of close social bonds is strongly linked to unhappiness, depression, and other woes (e.g., Argyle, 1987; Freedman, 1978; Myers, 1992). People with high levels of intimacy motivation tend to enjoy higher levels of happiness and subjective well-being (McAdams & Bryant, 1987), which is likely a result of their tendency to form and maintain a rich network of friendships and other social bonds (McAdams, 1985). Having some intimate bond appears to be important and perhaps even necessary for happiness. Social isolation is practically incompatible with high levels of happiness.

Negative affect

Threats to social attachments, especially the dissolution of social bonds, are a primary source of negative affect. People feel anxious at the prospect of losing important relationships, feel depressed or grief stricken when their connections with certain other people are severed, and feel lonely when they lack important relationships (Leary, 1990; Leary & Downs, in press; Tambor & Leary, 1993).

Anxiety is often regarded as the extreme or prototype of negative affect, and it is clearly linked to damaged, lost, or threatened social bonds. In fact, social exclusion may well be the most common and important cause of anxiety (Baumeister & Tice, 1990). Horney (1945) identified the source of "basic anxiety" as the feeling of "being isolated and helpless in a potentially hostile world" (p.41); of course, that formula mixes two different sources, insofar as isolation is a function of the belongingness need, whereas helplessness is a frustration of control (which is probably another fundamental motivation). Anxiety and general distress seem to be a natural consequence of being separated from important others. Children as young as 1 year old show extreme distress—separation anxiety—on being separated from their mothers (Bowlby, 1973), and adults show similar reactions when they must leave loved ones for an extended period of time. Furthermore, people's memories of past rejections are tainted with anxiety (Tambor & Leary, 1993), and even just imagining social rejection increases physiological arousal (Craighead, Kimball, & Rehak, 1979).

Consistent with the social exclusion theory of anxiety, Barden, Garber, Leiman, Ford, and Masters (1985) found that anxiety ensues if people are excluded from social groups, but experiences of social inclusion appear to counteract the effects of exclusion and remove the anxiety. Mathes, Adams, and Davies (1985) predicted that a threat to self-esteem would mediate the link between jealousy and anxiety, but their results did not support their hypothesis. Instead, they found that the loss of relationship led directly to anxiety.

Like anxiety, depression may be precipitated by a variety of events, but failing to feel accepted or included is certainly one of them. Both general depression and social depression (i.e., dysphoria about the nature of one's social relationships) are inversely related to the degree to which one feels included and accepted by others (Tambor & Leary, 1993). Hoyle and Crawford (in press) found that both depression and anxiety were significantly correlated (negatively) with students' sense of belonging to their university.

Jealousy is another negative affective state that is a common response to threats to one's relationships. Pines and Aronson (1983) reported that, in a series of surveys, some experience of jealousy was essentially universal, in the sense that everyone experiences it sooner or later. Moreover, more than half of their respondents described themselves as being "a jealous person" and correctly estimated that slightly more than half of the other participants would respond in that same way; however, they also said that the true incidence of jealous people was even higher, because some jealous people deny their jealousy. Pines and Aronson emphasized that "feeling excluded" is a major cause of jealousy.

Regarding jealousy, perhaps the most relevant finding for our purposes was that of Reiss (1986), who concluded that jealousy is cross-culturally universal. Reiss carefully investigated the extravagant claims made by some observers and anthropologists that, in certain cultures, people are able to exchange sexual partners and intimate partners without any possessiveness or jealousy, and in every case the claim turned out to be unwarranted. Cultures may indeed vary as to which particular actions or signs of

affection are regarded as justifying jealous reactions, and they may differ in how people express their jealousy, but sexual jealousy is found in all cultures.

Loneliness reflects "an individual's subjective perception of deficiencies in his or her social relationships" (Russell, Cutrona, Rose, & Yurko, 1984, p. 1313). In other words, people feel lonely when their belongingness needs are being insufficiently met. Moreover, it appears that belongingness, rather than mere social contact, is the crucial factor. Mere social contact does not, by itself, buffer people against loneliness. Lonely and nonlonely people do not differ markedly in the amount of time they spend with other people. However, lonely people spend less time with friends and family—those who are most likely to fulfill their needs to belong—than nonlonely people (Jones, 1981). Furthermore, loneliness is much more strongly related to one's sense of social isolation than to objective indexes of one's social network, such as one's sheer number of friends (Williams & Solano, 1983). In one study, the correlation between self-reported loneliness and the degree to which people felt included and accepted by others was found to be $-.71$ (Spivey, 1990). Generally, loneliness seems to be a matter more of a lack of intimate connections than of a lack of social contact (Reis, 1990; Wheeler, Reis, & Nezlek, 1983).

Yet another highly aversive emotional state is guilt. Despite a long tradition of analyzing guilt in terms of self-evaluation according to abstract moral standards, recent work has increasingly emphasized the interpersonal structure of guilt (Baumeister, Stillwell, & Heatherton, 1994; Cunningham, Steinberg, & Grev, 1980; Jones & Kugler, in press; Jones, Kugler, & Adams, 1995; Miceli, 1992; Tangney, 1992). Empirical studies of how people induce guilt in others have found that such inductions are almost entirely confined to close interpersonal relationships and that a major reason for inducing guilt is to cause one's partner to exert himself or herself more to maintain the interpersonal relationship (e.g., by spending more time with or paying more attention to oneself; Baumeister, Stillwell, & Heatherton, in press; Vangelisti, Daly, & Rudnick, 1991). Many episodes of guilt can thus be understood as responses to disturbances or threats to interpersonal attachments.

Two specific events that thwart people's need to belong are divorce and death. Divorce is not generally recognized as an occasion for joyful celebration, even if the divorce was desired more fervently than the wedding had been. Divorce produces varied forms of distress, including anger, depression, desolation, and loneliness, in nearly everyone. Weiss (1979) concluded that some "emotional upset ... appears to be a nearly inevitable accompaniment to marital separation" (p. 210) and is found "even though [the] marriage had become unhappy" (p. 202). In contrast, Spanier and Casto (1979) and Goode (1956) did find a minority of participants who reported relatively little distress in response to divorce. Spanier and Casto (1979) thought that one possible explanation for the discrepancy was that their single interview technique (in contrast to Weiss's multiple sessions) was less sensitive to some deep or occasional feelings. Consistent with this, they concluded that certain forms of distress, such as regret, yearning, and bitterness, "actually may increase over time" (p. 226). Price and McKenry (1988) suggested another reason that one-time measures may fail to find universal distress after divorce: Many couples may have passed through the most distressing phase before the researchers collect their data.

Spanier and Casto (1979) listed the emotional turmoil after divorce as mixed from among

feelings about the (former) spouse, such as love, hate, bitterness, guilt, anger, envy, concern, and attachment; feelings about the marriage, such as regret, disappointment, bitterness, sadness, and failure; and more general feelings, such as failure, depression, euphoria, relief, guilt, lowered self-esteem, and lowered self-confidence. (p. 213)

Price and McKenry (1988) summarized the common emotional reactions to divorce as including "extreme stress, including feelings of rejection, depression, hostility, bitterness, loneliness, ambivalence, guilt, failure, confusion, disorganization, and sometimes relief" (p. 42). It is clear that plenty of negative affect accompanies divorce.

Perhaps the strongest emotional reactions human beings experience involve death, both the death of oneself and the death of other people. The death of a spouse, child, or close friend ranks among the most stressful events that people experience (T. H. Holmes & Rahe, 1967; Weiss, 1979). Grief often takes the form of an especially severe depression. Some conceptualizations of grief portray it not as a reaction to the loss of the person but as a reaction to the loss of a linkage with another person (Lofland, 1982). It is interesting that people even grieve deeply over the death of spouses with whom they had had troubled marriages. As Weiss (1979) observed, "Apart from minor variations, ... nearly disabling grief was the rule, even among individuals who could say about the preceding marriage, as one widow did, 'Ours wasn't the best marriage in the world'" (p. 202).

Anxiety about death, whether of oneself or others, can be regarded as stemming (at least in part) from a threat to belongingness (Baumeister & Tice, 1990). As Lofland (1982) pointed out, when people die, relationships end. Along these lines, Conte, Weiner, and Plutchik (1982) linked death anxiety to fear of loneliness (see also Mijuskovic, 1980). In a study of death anxieties, Bednarski and Leary (1994) found that a primary basis of people's fears about death involved concerns with being separated from friends and family. These interpersonal concerns appeared to be a more important source of death anxiety than fears about no longer existing or uncertainty about what happens after death. This link between death anxiety and separation anxiety may explain why most positive depictions of life after death have emphasized togetherness with family and loved ones, with a broad community of like-minded believers, with a loving deity, or with all of the above (e.g., Baumeister, 1991). If death anxiety is rooted in threats to belongingness and social inclusion, then fears of death can best be soothed by emphasizing that death will involve a continuation or even an improvement in one's belongingness status.

Indirect effects

Although we have emphasized emotional consequences of changes in belongingness, there may also be indirect ways in which belongingness affects emotion. As shown earlier with cognitive processes, emotional processes may change when the situation involves a close friend or intimate partner. Tesser (1991) has reviewed a number of such effects. The main implication is that emotional responses to the relative outcomes of self and other depend heavily on whether the other person is a close relationship partner such as a good friend. When the performance involves a domain that is important to the self, it is upsetting to be outperformed by another person, and the emotional distress is magnified if the other person is a close friend (see also Tesser, Millar, & Moore, 1988). In contrast, if the performance involves some ability that is not important to self-definition, then superior performances by friends (but not strangers) produce positive affect. One key difference is what Tesser (1991) called the reflection process: The positive achievements of one's relationship partners reflect favorably on the self (as long as they do not make the self look bad by comparison in some important way). Similar achievements by strangers do not reflect on the self, of course, and so they do not produce positive affect. Meanwhile, it appears that the positive accomplishments of close others in domains relevant to one's own identity have a special capacity to generate distress by threatening one's cherished views of one's own important abilities. Thus, the existence of a close relationship with another person changes the way one responds emotionally to that person's performance outcomes in complex but predictable ways.

Critical assessment

The evidence reviewed in this section was drawn from sociology, anthropology, and several subfields of psychology, and it is based on a variety of methods including surveys, observational studies, cross-cultural comparisons, autobiographical narratives, and experiments. Although several of these methods are generally regarded as less conclusive than experimentation, the consistency of the conclusion across multiple methodologies is itself a source of confidence. Thus, for example, one could dispute Pines and Aronson's (1983) determination about the pervasiveness of jealousy by noting that their sample was possibly skewed to include a high proportion of people who were interested in jealousy, but the very high (indeed, universal) incidence of jealousy across different cultures, as attested by Reiss's (1986) review, makes it seem unlikely that Pines and Aronson were wrong in concluding that jealousy is very common.

Probably the greatest ambiguity in this section's evidence attaches to the discussion of death. To be sure, it is implausible to dispute that emotional distress very typically attends the death of a loved one or relationship partner. Still, there are alternate explanations for this distress that could possibly dispense with the need to belong. A partner's death may have effects on material and pragmatic concerns (e.g., loss of income), may create distressing uncertainty about one's own future, may affect the self-concept, and may activate worries about one's own death.

Conclusion

Many of the strongest emotions people experience, both positive and negative, are linked to belongingness. Evidence suggests a general conclusion that being accepted, included, or welcomed leads to a variety of positive emotions (e.g., happiness, elation, contentment, and calm), whereas being rejected, excluded, or ignored leads to potent negative feelings (e.g., anxiety, depression, grief, jealousy, and loneliness). The near universality of distress associated with divorce and bereavement is consistent with the belongingness hypothesis; indeed, there is no firm evidence in those literatures that significant social bonds can ever be broken without suffering or distress, even though (as noted) not every recently divorced or bereaved person will necessarily be suffering acutely when the interviewer happens to call.

Although the evidence was not equally abundant or equally strong for all emotions, the consistency across multiple emotions was impressive. It seems quite safe to conclude that both positive and negative emotional reactions are pervasively linked to relationship status. The existence of an interpersonal bond changes the way one responds emotionally to the performances and actions of a relationship partner and indeed intensifies many emotional reactions. Moreover, actual or possible changes in belongingness status constitute an important cause of emotions. The evidence is sufficiently broad and consistent to suggest that one of the basic functions of emotion is to regulate behavior so as to form and maintain social bonds.

Consequences of Deprivation

The general argument is that deprivation of belongingness should lead to a variety of affiliative behaviors and cause various undesirable effects, including decrements in health, happiness, and adjustment. We have already documented (in the preceding section) that loss of social bonds causes emotional distress, which is sufficient to show that belongingness is something people want. To regard it as a need, however, it is necessary to show effects that go beyond mere frustration and emotional distress.

Considerable research shows that people who do not have adequate supportive relationships experience greater stress than those who do. In part, this is because having other people available for support and assistance can enhance coping and provide a buffer against stress. However, evidence suggests that simply being part of a supportive social network reduces stress, even if other people do not provide explicit emotional or practical assistance (Cohen & Wills, 1985). Although this finding has been interpreted in terms of the stress-reducing effects of social support, an equally plausible explanation is that the deprivation of the need to belong is inherently stressful.

Direct evidence that deprivation of belongingness is maladaptive was provided by DeLongis, Folkman, and Lazarus (1988). They found that happily married couples were less likely to experience psychological and somatic health problems, both on and after stressful days, than other participants. Medical research has suggested that these beneficial effects extend beyond mere health complaints. Lynch (1979) summarized the evidence from many studies by stating that "U.S. mortality rates for all causes of death ... are consistently higher for divorced, single, and widowed individuals" than for married individuals (p. 38). Lynch's own data showed the greater incidence of fatal heart attacks among unattached individuals than among married people, but he noted that similar effects can be found for tuberculosis, cancer, and many other illnesses, as well as overall patterns. Of course, there are multiple possible explanations for such an effect that might have nothing to do with belongingness, but efforts to control for these variables have often found a persistent, independent, robust effect of social relations. Goodwin, Hunt, Key, and Samet (1987) found that married participants survived cancer better than single ones even after the timing of diagnosis, likelihood of receiving treatment, and cigarette smoking had been controlled, and they cited other evidence that the effect remains after family income has been controlled.

Indeed, being deprived of belongingness may have direct effects on the immune system. Kiecolt-Glaser, Garner, et al. (1984) found that loneliness was associated with a decrease in immunocompetence, specifically in natural killer cell activity, and this effect was independent of changes in perceived distress. Kiecolt-Glaser, Ricker, et al. (1984) replicated this effect and also found elevated urinary cortisol levels among lonely participants. Kiecolt-Glaser et al. (1987) found poorer immune function on several measures among women suffering from marital disruption, including divorce, separation, and unhappy marriage.

The effects of belongingness on mental illness parallel those on physical illness. Rejected children have a higher incidence of psychopathology than other children (Bhatti, Derezotes, Kim, & Specht, 1989; Hamachek, 1992). Children who grow up without receiving adequate attention from caregivers show emotional and behavioral pathologies, as demonstrated experimentally by Harlow, Harlow, and Suomi (1971) with animals and as corroborated by observations of human children by Bowlby (1969, 1973; see also Rutter, 1979).

Marital status also has strong correlations with mental illness. Bloom, White, and Asher (1979) reviewed the literature and concluded that, in all studies, mental hospital admission rates are highest among divorced and separated people, intermediate among never-married people, and lowest among married people. In fact, as measured by admissions to mental hospitals, mental illness is at least 3 and possibly up to 22 times higher among divorced people than among married people.

Even problems that might at first seem unrelated to social interaction and relationships are sometimes found to have social deprivation or failed belongingness as an underlying cause. Problems with

attachment have been identified as a major factor in eating disorders. Sours (1974), for example, noted that patients with eating disorders tended to have been (as children) overly sensitive to separation from their mothers. Armstrong and Roth (1989) found that women with eating disorders had significantly more intense and severe separation and attachment difficulties than a normal comparison group.

Combat-related stress is also moderated by belongingness. Veterans who perceive that they have a high degree of social support are significantly less likely to experience post-traumatic stress disorder than those who have lower perceived support (Hobfall & London, 1986; Solomon, Waysman, & Mikulincer, 1990). In fact, the authors of one study concluded that loneliness "is the most direct antecedent of psychopathology and social dysfunction" in combat stress reactions (Solomon et al., 1990, p. 468).

Crime may also be affected by belongingness. Sampson and Laub (1993) showed that having a good marriage and a stable job each had a strong negative effect on adult crime, consistent with other evidence. Other evidence suggests that social bonds to other criminals or to criminal groups may foster crime. Recent news coverage of gangs has repeatedly suggested that a need to belong attracts unattached young people to join violent gangs, which tend to serve as a surrogate "family" (Olmos, 1994; cf. Jankowski, 1991). Sampson and Laub likewise found that having social relationships with delinquent peers was one of the strongest independent predictors of juvenile delinquency, consistent with plenty of previous evidence. They did, however, caution that this well-established link is based on largely correlational data and that ambiguities about the direction of causality remain to be addressed. Still, for present purposes, the link is important evidence that belongingness needs are important among deviants, regardless of whether the link arises because having delinquent peers causes delinquent activity or because delinquent activity leads to bonding with delinquent peers.

Meanwhile, in laboratory experimentation, Geis and Moon (1981) sought to involve participants in lying, cheating, and stealing at the behest of an assigned group partner (a confederate). They found that 67% of a sample of college students acquiesced in an act of cheating and in a monetary theft by their partner and that they actively lied to conceal the theft. Thus, it appears that even recently formed group bonds may be strong enough to overcome some salient prohibitions of traditional morality. (It is noteworthy that the group loyalty in that study may have been intensified by the presence of a hostile rival group.) More extreme versions of the phenomenon of going along with objectionable actions by fellow group members because of loyalty have been commonly observed as central factors in group violence, such as spontaneous atrocities committed by the Ku Klux Klan (Wade, 1987), Nazi police guards (Browning, 1992), and others (Staub, 1989; see also Groth, 1979, on gang rape).

The relevance of belongingness to suicide was suggested nearly a century ago by Durkheim (1897/1963). His seminal work proposed that suicide could be explained as a result of a failure of social integration. People who are well integrated into society by multiple and strong relationships are unlikely to commit suicide, whereas unintegrated people are much more likely to kill themselves. Durkheim's hypothesis has held up far better than most social science hypotheses over the decades, and the evidence continues to show that a lack of social integration increases the likelihood of suicide (Trout, 1980). For example, single, divorced, and widowed people are more likely to commit suicide than married people (e.g., Rothberg & Jones, 1987). Those who are unemployed have a higher suicide rate than those who are employed. People who belong to subcultural groups that are shrinking have increased suicide rates. People who work in occupations that are shrinking are also more likely than others to commit suicide. Indeed, the main criticism that can be leveled against Durkheim's hypothesis

is that it is incomplete in the sense that it does not explain everything about suicide (e.g., Baumeister, 1990; Douglas, 1967), but it is correct as far as it goes. For present purposes, the important point is that strong social ties are associated with a lower risk of suicide, probably because such ties help restrain people from killing themselves.

Social support research is relevant to the belongingness hypothesis because social support is based on relationships and positive interactions with others, and so any benefits of such support would constitute further confirmation of the belongingness hypothesis. The benefits of social support appear to be well established. Thus, for example, Cohen, Sherrod, and Clark (1986) showed that the availability of social support—which can be restated as the existence of social bonds—buffers people against the ill effects of stress. Cutrona (1989) showed that social support reduced depression during pregnancy and postpartum depression among adolescent girls. Responding to methodological criticisms that had attacked social support research as merely self-report bias, Cutrona's study included ratings of each girl's support network by an adult informant who knew the girls well, and these external informants' ratings predicted health outcomes (in some cases, even better than the girls' own ratings of their support). Thus, the benefits of belongingness in coping with major life stress appear to go beyond mere self-report bias.

Older adults who have a close, intimate friend (i.e., a "confidant") maintain higher morale in the face of life stresses such as retirement and spousal death than individuals who lack such a relationship. For example, Lowenthal and Haven (1968) found that widows who have a confidant have been found to be only slightly more depressed than married women, whereas those without a confidant have been found to be much more dysphoric. These researchers also found that the majority of older adults who recently lost a confidant were depressed, but the majority who currently had a confidant were satisfied.

Rook (1987b) distinguished between social support and companionship. Social support was in this case rather narrowly interpreted in terms of direct help, whereas companionship meant the expressive aspects of social interaction. Both were found to be important and beneficial, but companionship may be the more important of the two, especially for psychological well-being, social satisfaction, and coping with minor stress. These data are particularly important for the relevance of social support research to the belongingness hypothesis because one could conceivably argue that belongingness per se is irrelevant and that the practical, material help that people derive from their social networks is solely responsible for the benefits of social support. Rook's data suggested, on the contrary, that the practical help is secondary (except in extreme circumstances in which major assistance is needed), whereas belongingness is highly beneficial by itself.

Perhaps most generally, general well-being and happiness in life depend on having some close social ties. Social isolation is strongly related to various patterns of unhappiness (for reviews, see Argyle, 1987; Baumeister, 1991; Freedman, 1978; Myers, 1992). Indeed, Baumeister (1991) noted that it is about the only objective factor that shows a substantial correlation with subjective well-being. Happiness also appears to be fairly stable across time and circumstance (e.g., Costa, McCrae, & Zonderman, 1987), leading many to conclude that it is linked to personality factors. The broad trait of extraversion appears to be strongly related to happiness and positive affectivity (see Costa & McCrae, 1980, 1984), and extraversion encompasses several factors, such as sociability, gregariousness, warmth, and social involvement, that seem likely to enhance the tendency to form and maintain social ties. Moreover, belongingness appears to be sufficient to overcome the relative deficit in happiness that introverts suffer. Hotard, McFatter, McWhirter, and Stegall (1989) found that introverts who have a good network of social

relationships are just as happy as extraverts. Thus, introverts' deficit in happiness may be a result of their experiencing less belongingness.

Further support for the importance of belongingness to psychological well-being is provided by the fact that the psychotherapeutic process is facilitated by close personal bonds. Numerous therapeutic orientations stress the importance of the relationship between the therapist and the client. Rogers (1959), for example, urged psychotherapists to display a willingness to accept and support the client regardless of his or her behavior or contribution to the relationship. Such "unconditional positive regard" is perhaps the ultimate way to fulfill another person's belongingness needs. From the standpoint of the belongingness hypothesis, however, the essential ingredient in client-centered therapy is not unconditional positive regard (i.e., appraisal) but unconditional social acceptance (i.e., belongingness).

Furthermore, some have suggested that one goal of psychotherapy should be to enhance clients' ability to elicit social support in their everyday lives (Brehm, 1987). To the extent that people who have strong connections with others are happier, healthier, and better able to cope with the stresses of everyday life, most clients would presumably benefit from enhancing their belongingness.

The psychotherapeutic usefulness of belonging can also be seen in the effectiveness of group therapy. As Lewin (1951) flatly stated, "It is easier to change individuals formed into a group than to change them separately" (p. 228). In part, the effectiveness of group therapy seems to depend on engendering a sense of belongingness, as some authors have asserted (Larkin, 1972; Yalom, 1985). Forsyth (1991), in his review of research on group therapy, observed that therapeutic groups provide the member "with a sense of belonging, protection from harm, and acceptance" (p. 675).

People differ, of course, in the degree to which they believe that their belongingness needs are being met irrespective of the extensiveness of their social networks or the strength of social support they receive. Lakey and Cassady (1990) provided data suggesting that perceived social support operates much like a cognitive schema. People have relatively stable, organized beliefs about the extent and quality of their interpersonal relationships. These belief systems lead to biased interpretation of social interactions, as well as to a biased recall of past interpersonal events. As a result, some people have a predisposition to perceive others as unsupportive, leading them to experience belongingness deprivation even when others are in fact being supportive.

Critical assessment

The diversity of methodologies and the multiplicity of disciplines that have furnished the evidence reviewed in this section make it highly implausible to suggest that all such evidence can be explained away as the result of confounds or artifacts. At worst, some of the findings have alternate explanations. Not all studies have maintained careful distinctions between the pragmatic benefits of certain relationships and the direct benefits of belongingness. The fact that happily married people commit fewer crimes than other adults, for example, might be partly (or even wholly) due to the material benefits of being married. Even so, researchers who have maintained such distinctions (such as several of the social support researchers) have found pragmatic benefits to be a secondary factor. Belongingness thus has important and direct benefits.

A more serious limitation is that several of the findings are correlational. The higher rates of mental and physical illness among loners could reflect a tendency for people to reject deviants as potential relationship partners. By the same token, the higher levels of life satisfaction found among happily

married people could be partly due to a tendency for chronically unhappy people to be rejected as marriage partners. Still, those studies that have provided evidence about the direction of causality have consistently identified belongingness as the causal factor.

Conclusion

Deprivation of stable, good relationships has been linked to a large array of aversive and pathological consequences. People who lack belongingness suffer higher levels of mental and physical illness and are relatively highly prone to a broad range of behavioral problems, ranging from traffic accidents to criminality to suicide. Some of these findings may be subject to alternative explanations, and for some the direction of causality has not been established; however, the weight of evidence suggests that lack of belongingness is a primary cause of multiple and diverse problems. It therefore seems appropriate to regard belongingness as a need rather than simply a want.

Partial Deprivation: Relatedness Without Interaction

We have proposed that the need to belong has two aspects: People require frequent interactions with the same person, and people want a stable, enduring context of concern and caring. This section examines some instances in which people have the first of these while being deprived of the second, and the next section examines the opposite case. These cases are important for establishing whether the need to belong does indeed involve both aspects. To confirm this version of the belongingness hypothesis, a rather precise pattern of comparisons is needed, one based on the assumption that satisfying only one of the components should bring only partial satisfaction. People with only one of the two components should presumably be slightly better off than people who have neither, but they should be worse off than people who have both.

One example of relatedness without interaction involves people in prison. Many prisoners have families or loved ones on the outside, but interactions with them are severely restricted. Although systematic, quantitative data are scarce, works on prison life appear to be in emphatic agreement that prisoners treasure and cling to these ties yet suffer greatly over the lack of interaction (Baunach, 1985; Isenberg, 1991; Toch, 1977). At least some efforts at prison reform and the cultivation of alternatives to standard imprisonment emphasize that increasing contact with family members is beneficial to the prisoner (Scudder, 1952). Toch (1977) documented the extensive anguish suffered by prisoners over lack of contact with family and romantic partners, although he noted that the perceived threat of losing the bond was often a source of suffering, which suggests that the deprivation of interaction is not fully responsible for the distress.

One group that might be relatively immune to this fear would be imprisoned mothers, insofar as mother-child bonds cannot be broken through divorce or other mechanisms (unlike romantic ties and friendships). Baunach (1985) and Giallombardo (1966) both reported that imprisoned mothers lamented the loss of interaction with their children and used every available means to maximize contact. They noted that these efforts were especially impressive in that both the prison institution and the collective wisdom of the prison subculture stress the need to suspend all emotional interest in events outside the prison, because such concerns produce frustration and helplessness. Thus, these women's efforts to maintain such ties are opposed by pervasive situational pressures, but they remain strong anyway, suggesting that the bonds continue to offer satisfaction of some powerful need despite the effort and frustration involved in maintaining them.

Noncustodial divorced parents represent another group restrained from interacting with their children. Wilbur and Wilbur (1988) observed that most such parents refused to accept that the bond to their children was severed or even damaged, even when their lawyers advised them to abandon efforts to continue the relationship. Thus, the bond is apparently very important to these parents even if it is mainly associated with frustration, aggravation, and disappointment. Meanwhile, the lack of interaction and contact with the children was often very upsetting to these noncustodial parents, and indeed most of the dilemmas that Wilbur and Wilbur associated with noncustodial parenthood revolved around a lack of contact and interaction.

Children of divorce are often in a similar position of losing interaction access to the noncustodial parent. R. Rosen (1979) found that children who had free, unlimited access to interact with the noncustodial parent were least likely to perceive the divorce as traumatic, although that finding was based on correlational data and both variables (access and trauma) could have been confounded with how well the parents got along with each other after the divorce. Rosen also found that most children expressed a clear preference for such free access to the noncustodial parent, and a large minority indicated that they had less contact than they wanted to have with that parent. Thus, even if the relational bond continues to exist, many children seem to suffer from the reduction in interaction. A later study by Drill (1987) concluded strongly that most children want to maintain the bond despite the reduced interaction. Drill observed that children of divorce were most prone to depression if they perceived the noncustodial parent as being lost, in the sense of having the bond severed. Fortunately, most children apparently perceive the bond to remain in existence, which presumably accounted for Drill's finding that children of divorced parents were no more likely overall than children of non-divorced parents to be depressed.

Weiss (1973) reported that housewives who had recently moved to the Boston area often reported loneliness despite having a strong marital bond. They were lonely because they were deprived of interactions most of the time: They had no local friends, and their husbands were away all day and preoccupied with their new jobs. Hoyle and Crawford (in press) found that students' sense of belonging to their university involved more than mere identification with the institution; it also had a strong component of behavioral involvement. This sense of belonging was heavily correlated (.65) with their involvement in university activities, suggesting that daily interactions are an important part of belongingness. Although alternative explanations for these findings cannot be ruled out, the findings are consistent with the general pattern that a bond alone is not enough to satisfy the need to belong.

Long-distance relationships and commuter marriages offer another set of circumstances in which people have an interpersonal bond but are relatively deprived of interaction. Gerstel and Gross (1982) observed that people cling to these relationships, which suggests that they are positively valued and provide some rewards, but also find them stressful, consistent with the view that relationship without interaction is less than fully satisfactory. Similarly intermediate results were reported by Govaerts and Dixon (1988): Commuters did not show any significant drop in overall marital satisfaction, but they did express dissatisfaction with time spent together and affectional communication. Gerstel and Gross found that the stressful aspect of commuter marriage was significantly reduced by regular weekend visits; thus, the opportunity for regular and fairly frequent interactions was very beneficial (see also Holt & Stone, 1988). They also found that couples who had been married longer and therefore had a greater sense of stability suffered less from the stress of separation than other commuter couples, presumably because they could remain more secure and confident that the attachment to the spouse would survive. Thus, these people have a solid bond but still express a strong need for interactions.

In a later work, Gerstel and Gross (1984) reported that commuter couples valued the bond but suffered over the loss of interaction. Couples seemed to find it ironic that small talk over trivial matters would turn out to be something they missed, but as Gerstel and Gross noted, these seemingly insubstantial interactions are believed to be an important aspect without which the marital bond is not fully satisfactory or fulfilling. Frequent (long-distance) telephone conversations were a common but not fully satisfactory solution to the deprivation of interaction. Respondents in that study noted that telephone conversations seemed adequate for sharing information and discussing practical affairs but were frequently deficient for producing pleasant social interactions or enjoying one another's company. This suggests that regular interactions do have something to offer that is not contained in merely knowing that the social bond exists and exchanging information. In addition, loss of shared leisure activities was a common complaint.

Winfield's (1985) study of commuter marriages confirmed many of Gerstel and Gross's (1982, 1984) conclusions. In addition, Winfield found a surprisingly low rate of sexual infidelity (see also Gerstel & Gross, 1984) and concluded that married people who live apart are, ironically, only about half as likely to be unfaithful as married people who live together (despite the presumably much greater opportunity and temptation). She cited commitment to the relationship as an important reason for this increased fidelity, and so it reflects on how these people value the social bond. Still, it was clear that many couples suffer and feel deprived because of the lack of interaction, and Winfield observed that loneliness was a frequent problem. A similar point was made by Bunker, Zubek, Vanderslice, and Rice (1992), who found that commuting spouses were less satisfied with their marital relationship, family life, and overall quality of life than were spouses who lived together. For present purposes, the implication is that the bond to an absent spouse appears to furnish some positive benefits and satisfactions, but people still suffer over the lack of contact. The evidence from commuter marriages thus appears to confirm the importance of two separate components of belongingness, namely the secure confidence in an enduring bond of mutual caring and the regular experience of pleasant, affectively positive interactions.

Similar findings have emerged from studies of the spouses of military personnel. Several articles on the wives of submariners have shown that these women suffer anxiety, depression, and physical illness during the long absences of their husbands (K. Beckman, Marsella, & Finney, 1979; A. I. Snyder, 1978; see Harrison & Connors, 1984, for a review). Pearlman (1970) observed that each departure typically involved a crisis.

Critical assessment

Evidence from multiple fields and seemingly quite different populations points to the same conclusion about the need for interactions. All of the studies can be criticized on methodological grounds, however. The prison samples may be atypical and pathological. Commuters may be atypical because of having chosen to live apart (although the fact that they still suffer from the deprivation despite this choice would seemingly strengthen rather than weaken the argument that frequent interactions are needed). The observations about children of divorce seem less tainted by such concerns, but it may be difficult to disentangle the multiple causes of distress. The spouses of military personnel may be most representative of the population at large. A further problem is that most of these studies have used samples of convenience rather than systematically created ones. For prisoners in particular, and in some of the studies of other groups, the data are largely observational and impressionistic, and it would be much better to have quantified comparisons with well-chosen control groups.

Alternative explanations also plague the prison studies. Prisoners derive practical benefits from maintaining contact with people outside the prison who can bring them material goods and do them favors (Isenberg, 1991). As already noted, some of the concern about lack of contact with loved ones may reflect a fear of losing the bond, so it is not safe to regard prisoners as a pure example of people who have a stable bond but lack interactions. To some extent, this problem can be rectified by considering mothers, who should be less worried about being abandoned by their children; in some cases, however, they too fear that the child will bond with someone else and become estranged from them (Baunach, 1985), so it may be appropriate to regard this fear as merely reduced, not eliminated, among them. Baunach (1985) also noted that it is impossible to rule out the alternative explanation that some imprisoned mothers' displays of concern for their children are feigned ploys to impress the parole board.

The growing literatures on commuter marriages and filial attachments to divorced, noncustodial parents are less subject to alternative explanations than the prison studies, but they too are far from controlled, prospective studies that conclusively demonstrate causal effects. There have been attempts to study direct effects of frequency of interaction independent of pragmatic and other benefits. Most of the findings are still correlational, but on a priori grounds it seems implausible to suggest the reverse causal hypothesis (e.g., that unhappiness over lack of interaction causes people to spend less time together).

Despite these concerns, the convergence across different groups and methods is encouraging. At present, it seems appropriate to accept the converging conclusions from these studies, at least until contrary evidence is found.

Conclusion

Broad and consistent but methodologically weak evidence supports the conclusion that having a relationship without frequent interactions offers only partial, incomplete satisfaction of the need to belong. Researchers have studied several different circumstances in which people find themselves having relationships without interactions, and in each case the same conclusion has emerged: People with such bonds do seem to treat them as desirable and valuable (consistent with the view that they do offer some rewards) but suffer over the lack of direct contact with the other person.

Partial Deprivation: Interaction Without a Bond of Caring

Interaction without an ongoing bond of caring should also be only partly satisfactory. Two predictions can be made. First, insofar as the need to belong requires that some interactions reflect a relationship context, it can be predicted that interactions with changing series of partners should be less than satisfying. Second, if the interactions are supposed to reflect the context of positive emotional concern, then people should not be satisfied by interactions within the context of an ongoing relationship or social bond that is not marked by positive caring. We look for evidence for the specifically mutual nature of the bond.

Need for relatedness

Can people be satisfied by frequent interactions without stable relationships? Weiss (1973) observed that "loneliness is not simply a desire for company, any company; rather it yields only to very specific forms of relationship" (p. 13). Wheeler et al. (1983) showed that loneliness is largely independent of one's amount of social contact, thereby confirming Weiss's observation. In the next section of this article, we cover several studies showing that people seem to prefer a few close friendships over a high

number of transient or superficial encounters and that evidence could be taken to indicate that the relationship bond is essential to full satisfaction.

One possible population of people who have many interactions without the bond of mutual caring would consist of prostitutes, who may have a high frequency of physically intimate interactions with partners with whom there is no ongoing bond. Sure enough, prostitutes often describe their occupation as having the benefits of meeting interesting people and not being as boring as other jobs (e.g., McLeod, 1982, p. 31). If intimate interactions were sufficient to satisfy social needs without any lasting bond, prostitutes might be very happy and well adjusted. On the contrary, however, it appears that prostitutes are far from satisfied by these interactions and instead seek and cultivate lasting bonds with others. The desire for bonds of mutual caring is apparently often responsible for irrational, even self-destructive attachments to procurers and other men (Adler, 1980; McLeod, 1982; Symanski, 1980). Also, many prostitutes are single mothers, and the bond with the child is very important (McLeod, 1982). Several signs indicate that prostitutes do like to cultivate long-term relationships with clients, as evidenced by some brothel rules designed to prevent the formation of such attachments (Symanski, 1980). Indeed, Symanski (1980) calculated that prostitutes would maximize their financial earnings by working in brothels and serving the most customers, yet many specifically objected to the procedures involving many brief contacts and sought to work in other settings where they could have more time with each client and cultivate repeat customers. These observations must be regarded as tentative, however, because the studies lack methodological rigor.

Bond of caring

The next issue is whether all relationship bonds can satisfy the need to belong. It appears that only bonds marked by positive concern and caring offer satisfaction. Even if a person has both an enduring bond and frequent interactions, he or she may feel that the need to belong is not fully satisfied. We turn now to relevant evidence involving cases in which the person is firmly linked to others but has unpleasant or unsatisfying interactions with them.

Earlier, we listed a series of apparent benefits of social bonds for health, adjustment, happiness, and general welfare. There is an important qualification, however. In many cases, it is not the mere fact of having an interpersonal attachment, but rather having an attachment that brings positive interactions, that is decisive. Relationships marked by conflictual interactions are much less beneficial and sometimes harmful. DeLongis et al. (1988) found that happily married people were much healthier than were people in unsupportive social relationships. Thus, it is not the mere fact of marriage, but rather having a supportive marital relationship, that provides health benefits, and people who are deprived of such a satisfying relationship are more vulnerable. Coyne and DeLongis (1986) reviewed evidence and concluded that bad marriages may be worse than being alone in terms of effects on happiness and health. Kiecolt-Glaser et al. (1987) found decrements in immune function among unhappily married women and among women who were separated from their husbands while remaining emotionally attached to them. Myers's (1992) review of the literature on happiness concluded that whereas good marriages provide a powerful boost to happiness, bad marriages lead to extreme unhappiness. Likewise, research on social participation by Reis, Wheeler, Kernis, Spiegel, and Nezlek (1985) found that the quality rather than the quantity of social interactions predicted health. Specifically, participants (particularly women) who had better quality interactions (defined in terms of intimacy, pleasantness, satisfaction, mutual disclosure, initiation, and influence) fared better on a variety of measures of physical and mental health.

Although the lack of a good marital relationship appears to be detrimental to mental health, the existence of a bad marital relationship is arguably worse. Having a spouse or close partner may preclude the person from seeking other, more satisfying and beneficial relationships, and the pervasive and salient conflictual interactions may intensify the person's feeling of not belonging. Thus, to complement the standard finding that good social support is beneficial for mental health, Vinokur and van Ryn (1993) showed that *social undermining* (i.e., conflict, criticism, making life difficult, and inducing feelings of being unwanted) in close relationships has a strongly negative effect on mental health. Indeed, in their sample of unemployed people, the effect of social undermining was stronger than the effect of social support. Carnelley, Pietromonaco, and Jaffe (1994) confirmed the link between problematic relationships to parents and subsequent depression, and they also found that the current romantic involvements of depressed adults tended to be characterized by fearful avoidance and anxious ambivalence. Although their results are correlational, they are quite consistent with the view that problems and deficiencies in close relationships contribute to depression (with attachment style as a mediating variable).

We also mentioned Sampson and Laub's (1993) finding that linked marriage and job involvement to reduction in criminal activity. These reductions in crime were limited to people who had good, stable, happy marriages and who were employed in steady jobs. (The marital and job effects were independent.) In contrast, the mere fact of being married, or the level of one's income, had no relation to crime. Thus, being well integrated into good relationships, rather than merely having a social attachment, reduces criminality.

Also relevant are studies on how a good marital relationship affects offspring; indeed, for evolutionary analyses, these investigations may be especially important. Several reviews have concluded that conflict between parents leads to aggressive, antisocial behavior (such as juvenile delinquency) and perhaps other behavior problems in children (Belsky, 1981; Emery, 1982; Rutter & Garmazy, 1983). Indeed, Emery (1982) concluded that parental conflict, rather than separation, is the main factor responsible for the bad effects of divorce on children, because the problems covary much more closely with conflict (in either intact or separated parents) than with separation. Recent work indicates that a good marital relationship tends to cause greater warmth toward the children, which in turn reduces angry and defiant misbehavior on the part of the children (N. B. Miller, Cowan, Cowan, Hetherington, & Clingempeel, 1993; see also Belsky, 1979).

Mutuality

The last issue concerns how important it is that caring, concern, and affection be mutual and reciprocal. One can well understand why people are better off to interact with partners who care about them, because the partners might provide more material rewards and other benefits. But is there any value to caring about the other person, as opposed to being merely cared about?

In the first place, it does appear that mutuality is the norm. M. S. Clark et al. (1987) showed that the desire to receive help from others was correlated with the desire to give help and respond to others' needs. This suggests that the desire for communal relationships is based partly on the appeal of a framework in which people have mutual concern for each other's welfare. The alternative explanation for Clark et al.'s findings would be based on social exchange theory, which would propose that people might prefer to be involved in one-way relationships, so that they would receive the benefits of the other person's care but not incur the costs of having to care for the other person. Perhaps mutuality is the

norm only because people cannot find others who will care for them without getting anything in return. The evidence runs contrary to this view, however, despite its economic and utilitarian logic. Hays (1985) examined relationship satisfaction as a function of the costs and benefits to the individual. From a behavioristic standpoint, he predicted that satisfaction would be predicted by an index of the rewards minus the costs, which is precisely what economic rationality would favor. Contrary to that prediction, however, Hays found that satisfaction was much better predicted by an index of rewards *plus* costs. In other words, people preferred relationships in which both parties gave and received care.

Mutuality seems to improve and strengthen the relationship. Rusbult, Verette, and Drigotus (1994) found that mutuality of commitment predicted good marital adjustment. This effect was independent of the actual level of commitment, which shows that mutuality per se is indeed beneficial. The other side of this was demonstrated by Hill, Rubin, and Peplau (1976), who showed that unequal involvement was a strong predictor of romantic breakup. Moreover, it was not simply the case that the less involved partner was more likely to break off the attachment, because in many cases the more involved person initiated the breakup. Only when both partners reported that both were equally involved was the couple likely to still be together 2 years later.

If mutuality is good for relationships, it is also good for individuals, as indicated by recent findings from studies of unrequited love (Baumeister & Wotman, 1992; Baumeister, Wotman, & Stillwell, 1993). These studies compared people who received love without giving it and people who gave love without receiving it. To the researchers' surprise, both groups tended to describe the experience as aversive. Apparently, love is highly satisfying and desirable only if it is mutual.

The parent-child bond is inevitably asymmetrical, insofar as the child cannot provide the parent with the nurturant care and concern that the parent must provide the child. If there are any exceptions to the principle that mutuality is optimal, they would presumably be found among parents. The difficulty, of course, is determining what is the appropriate comparison. One strategy would be to compare mutual and nonmutual two-person families, that is, compare families consisting only of two adults (i.e., childless marriages) and families consisting only of a parent and child (i.e., single parents). Research has abundantly shown that those two types of families differ dramatically in terms of happiness (of the adult): The childless spouses are happier than average, and the single parents are less happy than average. In other words, if an adult woman is to have only one other person in her family, she will be happier if this person is a husband rather than a child (e.g., S. A. Anderson et al., 1983; Baumeister, 1991; Bernard, 1982; Campbell, 1981; Campbell et al., 1976).

One reason for the importance of mutuality may be trust. J. G. Holmes and Rempel (1989) reviewed evidence that trust is often a crucial and influential feature of good, beneficial, and satisfying relationships and concluded that trust depends heavily on mutuality, especially the mutual recognition of reciprocal concern and attachment. Dissimilar feelings and unequal involvement prevent the growth of trust and thereby thwart or weaken relationships.

Critical assessment

The evidence in this section was uneven in quality and quantity. We have found no methodologically rigorous evidence indicating that frequent interactions without an ongoing relationship offer partial or intermediate satisfaction of the need to belong. The prostitution studies were merely correlational and impressionistic, and, even if they had been based on systematic samples of prostitutes (which they were not), one would be reluctant to generalize from prostitutes to the rest of the population.

In contrast, the evidence is stronger with regard to the inadequacy of negative or conflictual interactions to provide satisfaction. Although much of this evidence is correlational, there is some time-sequence evidence suggesting that unhappy marriages and other problematic relationships lead to distress and illness.

The evidence for mutuality is scattered and fragmentary, although it is consistent. Most of it is somewhat indirect. Further research is needed to provide direct evidence about the importance of mutuality, particularly whether one's own caring for the partner is important for satisfying one's own need to belong.

Conclusion

First, there is some evidence that interactions with a changing series of partners, without any ongoing relationship bond, fail to satisfy people, but this evidence is suggestive rather than conclusive. Second, several studies have indicated that problematic or unhappy marriages fail to produce the benefits normally linked to belongingness and, in fact, may make things worse. Thus, the mere fact of a social bond is not enough to protect people from these problems and pathologies. Rather, it appears that people require their primary social bonds to be characterized by affectively positive interactions that signify the other's affectionate concern. Third, there are several indications that people prefer relationships marked by mutual, reciprocal concern, but stronger and more direct evidence is needed. It is also plausible that mutuality is merely a preference rather than a need.

Satiation and Substitution

The belongingness hypothesis holds that individuals need a certain amount of social relatedness. Social relationships and partners should therefore be to some extent interchangeable. Moreover, people who have sufficient social bonds to satisfy the need to belong should be less interested in forming additional relationships than people who do not already have sufficient bonds. These corollaries of the belongingness hypothesis can be expressed in terms of satiation and substitution. *Satiation* refers to the diminished motivation that ensues when the need to belong is already well satisfied, and *substitution* refers to the replaceability of one social bond with another. Satiation and substitution are not unrelated, of course, because both invoke the basic assumption that people need a certain quantity of belongingness, and attachments or interactions beyond that minimum should be subject to a pattern of diminishing returns.

Satiation implies a diminishing returns principle in the pursuit of new relationships and partners. Even in people-rich environments such as colleges, people appear to restrict their social lives to some extent. Studies show that the vast majority of the average student's meaningful interactions are with the same six people (Wheeler & Nezlek, 1977). Reis (1990) surveyed students about their interpersonal goals, and although "having lots of friends" received one of the lowest ratings, most of the top-rated items referred to intimate sharing with a few close, caring friends. Caldwell and Peplau (1982) found that a strong majority of both men and women expressed a clear preference for a few close friendships over a large number of good but less intimate friendships. Thus, people appear to devote their time and efforts toward deepening a limited number of relationships rather than toward meeting ever new people or cultivating a wider range of acquaintanceships. Consistent with the satiation hypothesis, people seem to believe that, in terms of friendships, quality (closeness) is far more important than quantity.

Audy (1980) suggested that this satiation is more or less essential if a species is to survive. Organisms evolve a "limited requirement for the frequency of social transactions and a corresponding optimum

group size" that permit a maximum of social gratification balanced by socially induced frustration (pp. 123–124). As he noted, there is evidence that people have evolved "a physiological structure and basic mental requirements suited to a particular group size that corresponds to [their] need for a certain level of social transactions" (p. 124).

Satiation patterns, in the form of diminishing effects of social approval as reinforcement, have also been investigated in the context of learning theory. Gewirtz and Baer (1958) replicated the standard pattern that children's task performance would improve in response to verbal approval reinforcers such as praise and other approving remarks; moreover, the reinforcement effect was intensified if the children had first been deprived of social approval by being kept in isolation for a brief period. In another condition, however, the children were first given an interview in which they received praise and admiration for whatever they said about themselves. After this interview, the standard praise and approval remarks failed to elicit improvements in task performance, which suggests that these participants had been satiated with approval and were unaffected by further doses. Eisenberger (1970) reviewed the subsequent studies on the same topic and found that the initial results were well replicated. Moreover, these effects were not a result of sensory deprivation, and they also failed to alter the subsequent responsiveness to nonsocial rewards. Eisenberger concluded that social deprivation and social (approval) satiation effects operated by altering short-term motivation for obtaining approval. Although these studies were generally conducted with children and did not involve lasting relationships, they do indicate that the motive to gain social approval is susceptible to satiation.

Social interaction patterns that accompany the formation of an intimate romantic relationship are especially relevant, because both satiation and substitution are implicit. Milardo, Johnson, and Huston (1983) found that as an intimate relationship develops, people reduce the amount of time they spend interacting with other people, including old friends. Thus, the romantic relationship appears to supplant the others and satisfy the belongingness need previously satisfied by the other friendships.

The belongingness hypothesis is, of course, not limited to the mere existence of some formal attachment but also depends on the quality of the relationship. Consistent with this, Berman's (1988) research on attachment to ex-spouses found that the positive qualities of the relationship were important determinants of the distress over the loss, as indicated by the finding that people who had more favorable memories of the marriage also had more distress after it ended. For present purposes, the important implication is that if bad marriages fail to satisfy the need to belong, then, as a result, they should stimulate a search for new attachments. Vaughan (1986) observed that when marriages begin to develop significant problems that will eventually lead to their dissolution, the individuals often begin to seek out new friendships and relationships. Along the same lines, Lawson's (1988) research on adultery found evidence that substitution can be an important factor, particularly for women. She found that the reason most commonly cited by women for engaging in extramarital sex was the husband's failure to satisfy the wife's intimacy needs. (For husbands, other factors such as sexual novelty and variety were influential, but these factors are irrelevant to the belongingness hypothesis.) The implication is that when the marital relationship satisfies the need to belong, women are unlikely to seek extramarital relationships, but when the marriage is not satisfactory, extramarital substitutes may be sought. This conclusion supports both the satiation and substitution hypotheses.

Spanier and Casto (1979) found that most people relied heavily on (and benefited from) social support from friends and family during divorce. When friends and family were not supportive, however, "this lack of support seemed to increase the overall difficulties in adjusting to the separation, especially the

emotional adjustments" (p. 217). Spanier and Casto also noted that a failure to make new friends made the adjustment worse. In a direct test of the hypothesis that more social interaction will lead to less adjustment problems after divorce, they found a strong relationship between social activity and adjustment problems. They also found that forming new heterosexual or romantic relationships eased the transition of divorce and led to far fewer difficulties of adjustment. When new relationships fail to form, the emotional distress associated with the divorce and the ex-spouse may actually increase rather than decrease over time (Spanier & Casto, 1979, p. 226), which again implies that substitution is an effective way of recovering from relationship dissolution. A very different source of evidence for the same conclusion is Bowlby's (1969, 1973) observation that children's anxiety and distress over separation from the mother seemed to be greatly reduced if the children were accompanied by a familiar other person at that time.

Populations of old people offer a useful way to examine progressive social deprivation, because in many cases old people have retired from work, are losing spouses to death, and cease to make new intimate friendships (e.g., Kaufman, 1986). Like Kaufman, L. J. Beckman (1981) found that old women's relationships to adult children had become increasingly important to their lives. The happiness of old women with children was unrelated to the amount of social interactions with other people; among childless old widows, however, happiness in life was significantly correlated with the quality and quantity of social interaction with other people. Thus, the rewards of social interaction with children appear to be "exchangeable and interchangeable" (L. J. Beckman, 1981, p. 1085) with the rewards of interacting with other people. Similarly, older adults who have a close friend are no more likely to become depressed if, for one reason or another, the amount of social interaction they have with other people decreases. In contrast, older adults without a confidant who decrease their interactions with others are at a very high risk for depression (Lowenthal & Haven, 1968). These results support the view that people need some social attachments to be happy and that these attachments are to some extent interchangeable. In particular, close relations with nonrelatives can apparently substitute for relationships with offspring, at least in terms of preventing any significant loss of happiness.

L. J. Beckman (1981) also obtained findings relevant to the satiation hypothesis. She found that the total amount of social interaction with others was a significant predictor of happiness among childless women but not among old women who did have children, and she suggested that restriction of range may account for this differential predictability. Specifically, according to Beckman, most old women with children do have at least a certain minimal level of social interaction, provided by the children, and so these women hardly ever fall into the category of extreme loneliness and social deprivation. Although Beckman repeatedly found that, ironically, interactions with nonoffspring had a bigger impact on happiness than interactions with children, having children visit occasionally seemed to be enough to satisfy the need to belong sufficiently to prevent the most severe problems of deprivation. Above that minimum, further quantity of social interaction did not appear to have an effect.

Substitutability patterns were suggested in a very different way by Rusbult, Zembrodt, and Gunn (1982; see also Rusbult, 1980). They suggested that people remain in their close relationships for several reasons, and one important factor is the availability of desirable alternative potential partners. In other words, people are more likely to leave an intimate relationship if they have some prospect of forming another intimate relationship with someone else soon.

Divorced people are at risk for a multitude of bad outcomes, including illness, homicide, suicide, criminality, and accidental injury or death (Bloom et al., 1979). One explanation is that the divorced

population represents a self-selected group of pathologically inclined individuals, but this dispositional argument is weakened by the finding that remarriage tends to reduce or eliminate the elevation in risk. The trauma of divorce itself may be partly responsible for the increase in vulnerability, but although the risks are highest immediately after divorce, they do not fully subside until remarriage. The fact that remarriage appears to eliminate many negative consequences of divorce can indeed be explained in several ways, but it is at least strongly consistent with the hypothesis that the new marriage substitutes for the old one.

Divorce may often be voluntary, but imprisonment is not, and prisoners suffer deprivation of contact with relationship partners outside the prison. Men's prisons are physically dangerous, and both the gang bonding and the cultivation of social isolation commonly found among male prisoners may reflect more a concern with physical safety than anything else. In contrast, female prisons are far less dangerous to inmates, and so it is relevant to examine how women prisoners adapt to the deprivation of contact with outside partners. Several studies have found that female prisoners commonly form substitute families based on imaginary kinship ties with other prisoners (Burkhart, 1973; Giallombardo, 1966; Toch, 1975). Some pseudomarital bonds appear to involve voluntary homosexuality, which is typically renounced on leaving the prison (Burkhart, 1973). In some cases, these pseudofamilies become quite extensive and complex, with many women playing parts of parent, child, husband, wife, grandparent, and other roles for each other. These patterns appear to be simply an adaptation to prison life based on the desire to experience romantic and family-style belongingness during the time one is deprived of contact with the usual relationship partners.

As we noted earlier, when groups break apart or people move away from relationship partners, there is often initially strong resistance to dissolving the relationship, but this resistance tends to diminish over time (e.g., Lacoursiere, 1980; Lieberman et al., 1973). These efforts to maintain the bond may be driven by the absence of social ties in the new environment, and as people gradually form new attachments they lose the need to sustain the old ones. If this is correct, then future research should find that people's efforts to sustain friendships across long distances are inversely proportional to their opportunities to develop new friendships. For example, when people move overseas, where cultural differences may hinder the development of new intimate friendships, they should be more likely to stay in touch with old friends than when moving to another place in the same country.

Not all relationships are interchangeable, of course. Close relationships based on romantic love may offer a variety of satisfactions that are not easily obtained through nonromantic, nonsexual friendships. Ruehlman and Wolchik (1988) found that there were indeed particular benefits connected with the relationship to the most significant other in a person's life. More precisely, they found that once the social support and hindrance provided by the most significant other person in someone's life were taken into account, there were no additional significant effects of the support and hindrance provided by other people. This pattern of results suggests that people need at least one particularly strong, close attachment and that once they have that, further attachments are subject to some principle of diminishing returns. A similar point was made by Coyne and DeLongis (1986), who concluded, from a review of the social support literature, that the harmful effects of a bad marriage are not offset by having other good relationships; thus, again, the special importance of the marital bond was confirmed. Likewise, although women prisoners adapt to prison by suspending their emotional attachments to most outsiders and forming substitute family relationships with other prisoners, they do exert themselves extensively to maintain the bond with their real children who remain outside the prison (Baunach, 1985). And of course, as Hazan and Shaver (1994a) have pointed out, although children could conceivably

affiliate with any available person, they nearly always focus on one particular person, and their need to interact (as evidenced, in part, by distress over separation) becomes mainly focused on that person.

Critical assessment

There is an assortment of evidence consistent with the hypotheses of satiation and substitution, but the evidence is neither systematic enough nor unambiguous enough to regard those hypotheses as strongly supported. Thus, the fact that forming a close romantic attachment leads to withdrawal from other friendships could be partly due to having a limited amount of time to spend socializing rather than to any reduction in need for the other friendships. Likewise, the cultivation of external friendships when a marriage goes bad could be due to a need to discuss the marital problems with a sympathetic outsider rather than a quest to find a new social bond that could furnish what the marriage no longer provides. Although the diversity of spheres yielding consistent findings encourages one to expect that further evidence will continue to fit the satiation and substitution hypotheses, more systematic work is needed to rule out alternative explanations.

Also, there appear to be limits on the extent to which relationships can be substituted. A close romantic attachment to a partner, with sexual attraction, appears to have special benefits that cannot be compensated by other relationships. Still, when such a relationship ends, forming a new one appears to be sufficient to bring the person back to an equally high level of adaptation and happiness, which suggests that, in the final analysis, a new spouse may be an effective substitute for a previous one.

Conclusion

People's interaction patterns and surveys of preferences suggest that people seek a limited number of relationships, consistent with the view that the need to belong is subject to satiation and diminishing returns. The first few close social bonds appear to be the most important, beyond which additional ones furnish ever lesser benefits. When people lose such bonds or find their particular partners inadequate, they can often derive similar benefits from others, suggesting that partners can be substituted to some extent. There are certain kinds of relationships that cannot effectively be replaced with other kinds of relationships, although finding a new relationship of the same type appears, in many cases, to be viable and effective. These conclusions are tentative, however, and further, more systematic work is desirable.

Innateness, Universality, and Evolutionary Perspectives

We proposed that a fundamental need would presumably be innate, which would entail that it is found in all human beings and is not derivative of other motives. This will, of course, be quite difficult to verify, because empirical criteria for testing such a hypothesis are not widely recognized. One approach, however, would be to examine how well the empirical evidence conforms to evolutionary arguments. If evolution has instilled the motivation, then it is presumably universal among human beings and will be present in each person without needing to be derived from other motives.

Barchas (1986) has asserted that "over the course of evolution, the small group became the basic survival strategy developed by the human species" (p. 212). He went on to suggest that the brain and small groups evolved and adapted together, with multiple interrelationships. The evidence reviewed by Barchas remains preliminary, but it does seem that any link between brain structures and small-group formation would strengthen the case for an innate motivation.

Although the psychobiological systems involved in social attachment are not yet well understood, early evidence implicates the brain opioid system. According to Panksepp, Siviy, and Normansell (1985), both the tendency to form social bonds and the emotional effects of social loss (e.g., sadness or grief) are mediated by opioids. The formation and validation of relationships apparently stimulate opioid production, whereas the dissolution of relationships impedes it. As Panksepp et al. put it, "social affect and social bonding are in some fundamental neurochemical sense opioid addictions" (p. 25). Thus, in their view, the tendency to seek social connections with others is based not only on the secondary reinforcements that other people provide but on psychophysiological mechanisms as well.

Multiple evolutionary reasons could be suggested for the readiness to form groups easily. Groups can share labor, resources, and information; diffuse risk; and cooperate to overcome stress or threat (Hogan et al., 1985). Defense against rival groups would also be a significant factor: If other people form into groups, lone individuals would be at a competitive disadvantage in many situations, and so evolution may have selected for people who would form groups defensively. Hence, the evolutionary argument would fit any evidence that group formation or cohesion patterns are increased by external threat.

It has long been noted that external threats increase group cohesion, and some writers have treated this as axiomatic. Stein (1976) reviewed these views in light of the evidence and found that a broad variety of methods have yielded generally consistent findings; that is, external threats do increase cohesion most of the time. There are some circumstances in which groups disintegrate under threat, especially if the threat pertains only to some members of the group or if group members must compete against each other to survive the threat (e.g., if there are too few lifeboats). Staw, Sandelands, and Dutton (1981) also found evidence that group cohesion is sometimes weakened in the aftermath of a threat, especially if the group has failed to defeat the threat and the group members blame each other. Apart from these circumscribed exceptions, however, it is safe to conclude that external threats do generally increase group cohesion.

A remarkable demonstration of the power of external threat to forge lasting bonds was provided by Elder and Clipp's (1988) study of World War II veterans' groups. In Elder and Clipp's results, the effects of maximum threat were discernible 40 years later. That is, four decades after the war, the most enduring and strongest ties were found among veterans who had experienced heavy combat together and had suffered the deaths of some close comrades. Units that had experienced combat without fatalities were less close 40 years later, but they retained stronger ties than the units that had not been in combat together. In other words, the sharing of military experience provided some lasting bonds, these bonds were intensified by shared experience of combat, and they were especially strong if it had been heavy combat that had killed some members of the group. It seems clear that there would be survival benefits to a pattern in which the death of a group member strengthened the ties among the survivors, especially in the face of external danger.

The group formation effects in the Robbers Cave study (described earlier; Sherif et al., 1961/1988) accelerated rapidly after the mutual discovery of the existence of the two rival groups; that is, the implicit threat posed by the opposing group seemed to motivate each boy to cling to his own group more strongly. Similar processes have been observed in terrorist groups, which mainly become cohesive in the face of external threat and danger. During periods when the conflict with outsiders lapses, terrorist groups experience internal dissent and conflict and may fall apart (see McCauley & Segal, 1987).

Compelling evidence in favor of emphasizing the competitive disadvantage motive for affiliating was provided by Hoyle, Pinkley, and Insko (1989). These researchers noted the irony that encounters between individuals are generally pleasant and supportive, whereas encounters between groups are frequently unpleasant and confrontational, and their first study confirmed these general expectations and stereotypes empirically. In their second study, they sought to determine the decisive factor by comparing interactions between persons, between groups, and between one person and one group. To their surprise, they found that participants' expectations about the interaction were determined mainly by the other party rather than by participants' own belongingness status. When participants expected to interact with a group, they expected an abrasive interaction; when they expected to interact with an individual, they anticipated a pleasant, agreeable interaction. Identical effects were found regardless of whether the participant expected to be alone or to be part of a group. Thus, apparently, the presence of an out-group causes people to anticipate conflict and problematic interactions. Such an expectation could well elicit a motivation to form a group to protect oneself.

A similar conclusion was suggested by Lauderdale, Smith-Cunnien, Parker, and Inverarity (1984). Following Schachter's (1951) studies on group rejection of deviants, they found that increasing an external threat led to increased rejection. The implication was that groups become increasingly oriented toward solidarity when confronted with an external threat.

Apart from threat, the possibility of gaining resources also seems to trigger group cohesion, even when it is functionally irrelevant. Rabbin and Horwitz (1969) assigned participants randomly to two groups. The random assignment alone yielded no effects of group cohesion on their measures of in-group preference, but they did find significant effects after a manipulation in which one group was given a prize (transistor radio) based on a coin flip. The rewarded group and the deprived group both showed increased in-group preference. The prize was logically irrelevant to subsequent group activities and preferences. The implication is apparently that the combination of limited resources and multiple groups triggers an in-group preference response that has no apparent practical or rational basis, which is consistent with the view that it is a deeply rooted and possibly innate tendency rather than a strategic or rational choice.

Critical assessment

The evidence linking external threat to increased group cohesion is convincing but does not prove an evolutionary hypothesis of innateness or universality. The evidence for brain mechanisms is likewise supportive but inadequate to prove innateness. The evidence in this section is perhaps best described by stating that the evolutionary hypothesis nicely survived several tests that could have contradicted it.

Conclusion

Several patterns seem consistent with evolutionary reasoning. It remains plausible (but unproven) that the need to belong is part of the human biological inheritance. If so, the case for universality and nonderivativeness would be strong. At present, it seems fair to accept these hypotheses as tentative working assumptions while waiting for further evidence.

Apparent Counterexamples

Although the evidence presented thus far has been largely supportive of the belongingness hypothesis, one might object that our literature search has been structured in ways that predisposed it toward just such favorable indications. It is therefore desirable to examine behavioral patterns that would seemingly

constitute boundary conditions or counterexamples to the need to belong. This section briefly considers several.

Refusal to help or cooperate

People generally show a significant willingness to help others, but often there may be self-interested motives lurking behind the apparent altruism (e.g., Cialdini, Darby, & Vincent, 1973; Manucia, Baumann, & Cialdini, 1984). To be sure, in many cases people appear to put self-interest ahead of the welfare of others, leading them to disdain opportunities for helping others or cooperating. Entering into the long-running debate about the possibility and reality of truly altruistic behavior is beyond the scope of this article; our goal is merely to ask whether such cases do indeed contradict the belongingness hypothesis. In particular, it is necessary to ask whether these nonhelpful, noncooperative behavior patterns are reduced or eliminated by belongingness.

One of social psychology's best-known findings concerns the unhelpfulness of multiple bystanders at an emergency site. As Darley and Latane's (1968) study and many subsequent investigations (see Latane & Nida, 1981) showed, people tend not to come to the aid of an emergency victim when many other people are also present. Among the reasons for the bystander effect are the sense that it is not one's own responsibility to help and the fear that helping may bring negative consequences to the self. Various findings suggest, however, that belongingness can overcome the nonresponsiveness of bystanders. The bystander effect is apparently robust among strangers (e.g., Darley & Latane, 1968), but in cohesive groups, the opposite pattern is found, namely that larger groups produce more helping (Rutkowski, Gruder, & Romer, 1983). Even the mere anticipation of future interaction among group members is enough to eliminate the bystander effect, making group members quite willing and likely to come to each other's aid (Gottlieb & Carver, 1980).

Social loafing is another pattern in which people put self-interest ahead of cooperative concern for others (e.g., Latane, Williams, & Harkins, 1979). In social loafing, people reduce their efforts when submerged in the group, thereby gaining benefits of the group success without having to exert themselves maximally. Group membership can foster a sense of duty or obligation that can effectively override tendencies to engage in social loafing, however. Harkins and Petty (1982) showed that if people believe that they can make a unique contribution to the group, they do not engage in social loafing, even if individual contributions to the group will not be identified (and thus even if they will not receive credit for their contribution; see also Hardy & Crace, 1991).

The prisoner's dilemma game has been widely used to examine how people choose between a self-interested, individualistic (competitive) response and a cooperative response that can potentially maximize everyone's collective outcomes at the cost or risk of individual vulnerability to loss. Once again, the presence or apparent possibility of social attachments seems to shift people away from the self-oriented mode toward a more cooperative, collectively beneficial mode of response. The expectation of future interaction increases helpful cooperation in the prisoner's dilemma game, although this effect appears to obtain mainly among high self-monitors (Danheiser & Graziano, 1982). The opportunity to meet and talk with strangers appears to be sufficient to alter responses to a subsequent prisoner's dilemma game in favor of increased cooperation and decreased exploitation–defensiveness (Orbell et al., 1988).

Lastly, the commons dilemma (in which people deplete renewable resources for short-term individual gain) is another pattern in which people typically seek personal advantage at the expense of long-range

collective welfare. The commons dilemma also can be reduced or overcome by belongingness, however. Kramer and Brewer (1984) showed that when belongingness is stimulated by making the group identity salient, people are more likely to restrain their self-interested tendencies and instead cooperate with others for the greater good of the group.

More generally, helping appears to be increased by the existence of social bonds. Schoenrade, Batson, Brandt, and Loud (1986) found that the existence of a social relationship increases the motivation for helping. In the absence of a relationship, people help only for egoistic reasons (i.e., self-interest); when a relationship exists, however, people will help for relatively selfless, altruistic reasons (see also Toi & Batson, 1982). Even among strangers, familiarity leads to increased helping, as does a sense of interpersonal dependency (Pearce, 1980). The fact that belongingness can overcome self-interested patterns is shown by evidence that people prefer reciprocity in social exchange to the extent that even overbenefited individuals sometimes feel uncomfortable and distressed even though material self-interest is maximally served under conditions of being overbenefited (Rook, 1987a). The concern with equity and with aiding others is further indicated by the occasionally negative responses of would-be helpers to having their helpful efforts spurned by the intended recipients (e.g., S. Rosen, Mickler, & Collins, 1987).

Throughout this article, we have suggested that the need to belong may be biologically prepared. Evidence with animal species is therefore relevant here. Masserman, Wechkin, and Terris (1964) taught rhesus monkeys to pull a chain for food and then, in one condition, added the contingency that pulling the chain would cause a shock to be delivered to another monkey. Most monkeys refrained from pulling the chain under those conditions, even to the extent of starving themselves for several days rather than cause another monkey to be shocked. These patterns were particularly strong when the 2 animals had previously been cage mates and thus may be presumed to have formed some sort of bond; when the animals were strangers to each other, less than a third showed this form of altruistic, self-sacrificing behavior.

Nonreciprocation of love

Although mutual love provides strong satisfactions and hedonic benefits, there are many cases in which people do not reciprocate another's affection and romantic interest. Such refusals to form a social bond might be taken as evidence against the belongingness hypothesis.

On closer examination, however, inspection of patterns of unrequited love does not provide a serious challenge to the belongingness hypothesis, for several reasons. First, most people do want to form a close romantic relationship, and their refusals are typically based on either already having such a relationship with another partner (consistent with the satiation hypothesis) or perceiving the aspiring partner as unsuitable for some reason, such as unattractiveness or incompatibility. Moreover, in many cases, rejectors experience considerable distress such as guilt and empathic pain when rejecting another's offer of love. This distress is consistent with the view that rejecting social attachment goes against some deeply rooted aspect of human nature, even when the person is quite certain that he or she does not want this particular attachment (Baumeister & Wotman, 1992; Baumeister et al., 1993).

Shyness

Shy behavior patterns may seem antisocial insofar as the shy person sometimes avoids social encounters, withdraws from ongoing interactions, and acts in other ways that reduce the chances of

forming relationships (Leary, 1983). In fact, however, shy people are strongly motivated to form relationships, and shyness may reflect an interpersonal strategy that partially protects the individual against rejection.

When people do not believe that they will be regarded in ways that will result in social acceptance, they may avoid absolute rejection by disaffiliating. Although reticence and withdrawal are unlikely to make particularly good impressions or to bring hearty acceptance from others, they reduce the risk of saying or doing something that others might regard negatively. When one fears rejection, the best tactic may seem to be to participate as little as possible, thereby giving others few reasons to reject one (Shepperd & Arkin, 1990).

At the same time that they pull back, however, shy people engage in behaviors that have been characterized as “innocuously sociable” (Leary, 1983). They smile more (even though they feel anxious rather than happy), nod their heads more in agreement, ask more questions, and use more verbal reinforcers when others are speaking. These behaviors may reflect last-resort tactics to maintain a minimum degree of interpersonal connection in otherwise difficult or threatening encounters (Leary, Knight, & Johnson, 1987).

General Discussion

We have considered a broad assortment of evidence pertaining to the hypothesis that the desire for interpersonal attachments—the need to belong—is a fundamental human motivation. Most of the metatheoretical requirements we outlined for evaluating such a hypothesis appear to be satisfied, although some issues remain. We begin by reviewing the major conclusions.

Again and again, we found evidence of a basic desire to form social attachments. People form social bonds readily, even under seemingly adverse conditions. People who have anything in common, who share common (even unpleasant) experiences, or who simply are exposed to each other frequently tend to form friendships or other attachments. Moreover, people resist losing attachments and breaking social bonds, even if there is no material or pragmatic reason to maintain the bond and even if maintaining it would be difficult.

Abundant evidence also attests that the need to belong shapes emotion and cognition. Forming or solidifying social attachments generally produces positive emotion, whereas real, imagined, or even potential threats to social bonds generate a variety of unpleasant emotional states. In short, change in belongingness is a strong and pervasive cause of emotion in ways that support the hypothesis of a need to belong. It is also evident that people think a great deal about belongingness. They devote a disproportionate amount of cognitive processing to actual or possible relationship partners and interaction partners, and they reserve particular, more extensive, and more favorable patterns of information processing for people with whom they share social bonds.

Deficits in belongingness apparently lead to a variety of ill effects, consistent with the view that belongingness is a need (as opposed to merely a want). Both psychological and physical health problems are more common among people who lack social attachments. Behavioral pathologies, ranging from eating disorders to suicide, are more common among people who are unattached. Although most of these findings are correlational and many alternative explanations can be suggested, recent efforts have begun controlling for these other factors, and the pure, primary effects of

belongingness appear to remain strong. It appears, then, that belongingness is not only pleasant but also apparently very beneficial to the individual in multiple ways.

We proposed two aspects of the need to belong, and both appear to be important. That is, people seem to need frequent, affectively pleasant or positive interactions with the same individuals, and they need these interactions to occur in a framework of long-term, stable caring and concern. People who can satisfy one component but not the other tend to be less satisfied and less well off than people who can satisfy both, but they do seem to derive some benefits from satisfying the one component (as opposed to satisfying neither). More and better evidence is needed on this point, however; most evidence pertains to people who have the bond and lack interactions, rather than the reverse. Also, it is unclear whether the interactions must be pleasant or can be satisfactory if they are merely neutral. The evidence suggests merely that aversive or conflictual interactions fail to satisfy the need. Some evidence suggests that a framework of mutual, reciprocal concern is best, but the effects and importance of mutuality need further investigation.

The need to belong also appears to conform to motivational patterns of satiation and substitution. People need a few close relationships, and forming additional bonds beyond those few has less and less impact. Having two as opposed to no close relationships may make a world of difference to the person's health and happiness; having eight as opposed to six may have very little consequence. When a social bond is broken, people appear to recover best if they form a new one, although each individual life tends to involve some particularly special relationships (such as filial or marital bonds) that are not easily replaced. People without intimate partners engage in a variety of activities to find partners, but people who have partners already are much less active at seeking additional relationships, consistent with the satiation hypothesis.

We reviewed evidence that the need to belong affects a broad variety of behaviors; indeed, the range is sufficiently broad as to render less plausible any notion that the need to belong is a product of certain other factors or motives. We also noted that evidence about belongingness seems to implicate some brain mechanisms and to conform to patterns that evolutionary theory would suggest, both of which seem consistent with the argument that the need is innate in humans. Still, the nonderivative hypothesis is probably the least well supported aspect of our theory, not because of any clear evidence deriving the need to belong from other motives but simply perhaps because it is relatively difficult to collect compelling data to show that a motive is not derivative. The issue of which motives derive from which others appears to be an important challenge for future motivation research.

We also considered several counterexamples that at least superficially suggested tendencies to reject social attachment. On close inspection, these patterns did not stand up as counterexamples, and indeed there was generally strong evidence of a positive need to belong that increased the subjective difficulty of rejecting or avoiding attachment.

We conclude, then, that the present state of the empirical evidence is sufficient to confirm the belongingness hypothesis. The need to belong can be considered a fundamental human motivation.

Implications for Psychological Theory

If the belongingness hypothesis is indeed correct, then it seems plausible that many psychological phenomena may be affected by this motivation. Clearly, patterns of group behavior and close relationships can be understood as serving the need to belong. It is thus not necessary to derive all group and intimate affiliation patterns from other motives, such as the fact that groups may confer

pragmatic benefits or bolster self-esteem (see also Turner, 1985). People may simply desire to belong to groups. Patterns of self-presentation (Baumeister, 1982; Leary, 1994; Leary & Kowalski, 1990; Schlenker, 1980), interpersonal redress and excuse making (R. S. Miller & Leary, 1992; Schlenker, 1980; C. R. Snyder, Higgins, & Stucky, 1983), and group conformity (Moreland & Levine, 1989) may all be seen in the context of enhancing one's chances of inclusion in groups and relationships. Also, it may be no accident that people seem most likely to be prejudiced against members of groups to which they have little or no opportunity to belong. Thus, the most common and widespread bases of prejudice are race, gender, and national origin. People bolster their own in-group at the expense of out-groups from which they are excluded (e.g., Meindl & Lerner, 1984).

Although antisocial behavior might, at first glance, be regarded as another potential counterexample for the belongingness hypothesis (because antisocial behavior makes enemies and alienates other people), it is readily apparent that belongingness has close ties to it. Members of some groups are pressured to commit violent acts, ranging from vandalism to murder, to be accepted by and to demonstrate commitment to the group (e.g., Breitman, 1991; Freud, 1913/1956; Hogan & Jones, 1983; Rosenberg, 1991; Sarbin, 1982; Staub, 1989; Toch, 1992). It seems likely that aggression as well may have some belongingness as a prerequisite, because aggression risks alienating other people and so only people with firm attachments can safely engage in aggressive behavior.

The centrality of belongingness to human psychological functioning also has implications for the treatment of emotional and behavioral problems. From our standpoint, a great deal of people's psychological difficulties reflects emotional and behavioral reactions to perceived threats to social bonds. As has been shown, many of the emotional problems for which people seek professional help (anxiety, depression, grief, loneliness, relationship problems, and the like) result from people's failure to meet their belongingness needs. Furthermore, a great deal of neurotic, maladaptive, and destructive behavior seems to reflect either desperate attempts to establish or maintain relationships with other people or sheer frustration and purposelessness when one's need to belong goes unmet.

Implications for Other Fields

We suggested at the outset that the belongingness hypothesis ought to have implications that go beyond immediate psychological functioning and, indeed, that it might prove useful as an explanatory construct for the phenomena studied by researchers in other fields. We now consider briefly some nonpsychological applications of the need to belong.

Contrary to cultural materialism, we have proposed that many aspects of human culture are directly and functionally linked to enabling people to satisfy the psychological need to belong. If this is correct, then some historical and sociological changes in the structures of society should be linked to changes in the bases for belongingness. For example, membership in many organizations (including corporate employment) has largely ceased to depend on family connections the way it once did, with corresponding changes in the definition and power balance in families, the educational system (which provides credentials), and other placement systems (e.g., Burgess & Locke, 1945; Fass, 1977).

By the same token, the decline of arranged marriages and the increasing availability of divorce have made romantic attachment more dependent on individual attractiveness and other traits. Concern over the self as an instrument for attracting others and maintaining attachments should therefore increase. Thus, becoming old or fat would be less threatening if divorce were impossible or if marriages were arranged. With the increasing threat, social structures should emerge, for example, to help people look

young or lose weight. Also, sexuality has a frequently changing relationship to social inclusion, and various eras have included or excluded people on the basis of sexual chastity, skill, appeal, and perceived healthiness.

A general pattern may well be that cultures use social inclusion to reward, and exclusion to punish, their members as a way of enforcing their values. As is well known, many early civilizations equated exile with death, which seems to suggest that life is desirable only within the network of close relationships to which the person belongs. Modern civilizations tend to use prison to punish people, which again invokes the principle that depriving people of contact with relationship partners is highly aversive; solitary confinement is generally recognized as the most severe and aversive form of imprisonment. On the positive side, the evolution of modern society has seen an increasingly broad and fundamental quest for fame. Braudy's (1986) history of fame characterizes the desire for fame as based on a "dream of acceptance" that holds the (often illusory) promise that once a person achieves fame, he or she will be embraced and sought by others for the rest of his or her life. Fame may well be thus another instance of the use of social inclusion as a reward. A. H. Buss (1983) has pointed out that both the presence of others and the attention of others are important social rewards, and the deprivation of such contact has often been used as powerful social punishment.

Turning to political science, a well-known article by Morgenthau (1962) argued that the pursuit of power can be understood as the counterpart to the pursuit of love in that both involve an attempt to escape from loneliness. In Morgenthau's analysis, the human condition suffers from the threat of isolation, and by breaking down the barriers between one another people hope to achieve a sense of togetherness. The main difference between love and power is that love aspires to a mutual dissolving of personal boundaries, leading to an egalitarian merging into a new whole, whereas power seeks a unilateral overcoming of boundaries, by which the will of the more powerful person becomes the will of both. Morgenthau noted that the pursuit of power often fails to overcome loneliness, so that, ironically, the most powerful individuals end up feeling still isolated and lonely (hence, the tendency for rulers to demand that their subjects love them too). For present purposes, the main point is that the need to belong may be regarded as a major source of the desire for power.

The role of belongingness is also apparent in religion. Although ideological belief and acceptance of metaphysical doctrines are often regarded as the essence of religious participation, Stark and Bainbridge (1985) reviewed considerable evidence suggesting that the need to belong may be a more compelling factor than the need to believe. They noted that movement into and out of religious groups (including cults, sects, and mainstream denominations) depends much more heavily on social ties than on ideological belief. Indeed, many people do not fully grasp or understand the theological belief structure of their own religion (e.g., the subtle differences between the many Protestant denominations), but they are well aware of what sort of people in their community belong to which religion. Cults mainly attract people who are socially isolated or lonely, and these individuals are often attracted particularly by the promise of becoming part of a community or gaining a sense of belonging. Those who form social attachments to other members of the cult tend to remain, whereas those who do not form social bonds tend to leave soon. By the same token, Kirkpatrick and Shaver (1992) have shown multiple links between religious beliefs and adult attachment styles or relationship patterns.

Thus far we have focused on the broad need itself, but some specific patterns regarding human sociality may also have implications for other fields. For example, we have noted that an interesting psychological issue involves the factors that determine whether previously opposed groups do or do not

integrate into larger wholes (cf. Sherif et al., 1961/1988), such that individuals redefine their allegiance so as to belong to the new group. Such reidentifications have been important throughout history. The Wars of the Roses were finally decided by the battle of Bosworth, in which Richard III was killed, thereby enabling Henry Tudor to establish the dynasty that ruled Elizabethan England; that battle (like others in the conflict) turned on the dubious loyalty and betrayal of several major groups that were incompletely merged into their respective sides (Ross, 1976). The Zulu empire in South Africa was formed by incorporating many other groups that had been rivals of and neighbors to the original Zulus, and those new identifications persist even today, long past the fall of that empire (Morris, 1965). Meanwhile, however, Angola, Rwanda, and Uganda have suffered repeated bouts of cruel violence and civil war between former rival groups that failed to integrate and identify with the national unity. Nor is this problem unique to Africa; the former Yugoslavia provided a vivid example of bitter factional violence reemerging after decades of seemingly peaceful coexistence, and the same goes for Sri Lanka. In the United States, melting pot ideology has recently gone out of fashion as the nation has begun to accept the problematic reality of multiple, separate enclaves defined by racial and ethnic backgrounds. In short, it appears that asking people to redefine their belongingness to accommodate new realities is difficult and only sometimes successful.

These applications are not intended as exhaustive, nor even as the most compelling or important. They are merely intended as an indication that the need to belong could be used as an interpretive construct outside of psychological laboratories.

Concluding Remarks

At present, it seems fair to conclude that human beings are fundamentally and pervasively motivated by a need to belong, that is, by a strong desire to form and maintain enduring interpersonal attachments. People seek frequent, affectively positive interactions within the context of long-term, caring relationships. As a speculative point of theory or impressionistic observation, the need to belong is not a new idea; indeed, we noted a variety of previous psychological theorists who have proposed it in one form or another. What is new, however, is the existence of a large body of empirical evidence with which to evaluate that hypothesis.

If psychology has erred with regard to the need to belong, in our view, the error has not been to deny the existence of such a motive so much as to underappreciate it. This review has shown multiple links between the need to belong and cognitive processes, emotional patterns, behavioral responses, and health and well-being. The desire for interpersonal attachment may well be one of the most far-reaching and integrative constructs currently available to understand human nature.

Footnotes

¹ His later thinking may, however, have moved beyond this view to regard attachment needs as having a separate, even innate basis rather than being derived from the contact with one's mother; in this later view, he treated the relationship to one's mother as simply an influential prototype of attachment.

² A possible sex difference could be suggested in the mode of expressing this need, however, in that men may be more oriented toward forming relationships, whereas women may be more oriented toward maintaining them. Men can reproduce many times by forming many brief relationships, whereas women can reproduce only about once per year, and so their most effective reproductive strategy would be to enable each child to receive maximal care and protection (D. M. Buss, 1991).

³ Perloff and Fetzer (1986) favored an interpretation for their results in terms of the vagueness of the comparison target over the motivational explanation that people want to regard their closest relationship partners as equally invulnerable (equal to themselves). Their discrimination between the two hypotheses rested on the "one of your friends" condition in their second study: They found that the "closest friend" was seen as being highly invulnerable, whereas when participants chose one of their other friends, this person was seen as more vulnerable. Their findings suggested that participants in that condition selected a friend who seemed most likely to have the problem asked about, so it is difficult to evaluate the motivational hypothesis. Thus, the interpretation emphasized here is consistent with all of Perloff and Fetzer's findings, as they acknowledged, even though their own interpretations tended to favor explanation in terms of vague versus specific targets.

⁴ Several studies have shown that physically unattractive people have a higher incidence of psychopathology than attractive people (e.g., Barocas & Vance, 1974; Cash, 1985; Farina, Burns, Austad, Bugglin, & Fischer, 1986; O'Grady, 1989). One reason may be that they lack belongingness, because society tends to reject unattractive individuals (Berscheid & Walster, 1974).

⁵ Admittedly, hospital admissions is an imprecise measure. One might object that married people can stay out of institutions because they have someone at home to take care of them. On the other hand, many people are admitted to such institutions at the behest of family members, and so one could argue that the true difference is even larger. Given the size and consistency of the effect, it seems reasonable to conclude that marital status is related to mental illness, although further and methodologically better evidence is needed.

⁶ The two overlap in many ways, of course. Cutrona (1986) has noted that esteem support is an important element of social support, particularly for helping people avoid depressive reactions to stressful events.

⁷ One might wonder whether sexual deprivation was responsible for the problems reported in commuter marriages. However, studies of these couples indicate that most see each other a couple of days each week, which in principle would be sufficient for the approximately weekly sexual intercourse that is the norm among married couples. Gerstel and Gross (1984) found that most of these couples had had sex only on weekends even when they lived together, so there was little decline in sexual frequency as a result of commuting; most couples reported that their sex lives were basically the same after they started commuting.

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DISCUSSION ONE: TWO ARTICLES ATTACHED

Social influence is pervasive. Understanding mechanisms by which our own behavior is influenced can help us intentionally shape the behavior of others. In this discussion, we will consider various forms of social influence by creating an intervention designed to address a particular concern in one of many real world settings.

To inform your thinking on this topic, begin by reading "Harnessing the Science of Persuasion" (Cialdini, 2001), "Social Influence: Compliance and Conformity" (Cialdini & Goldstein, 2004), "Cognitive Consequences of Forced Compliance" (Festinger & Carlsmith, 1959), "Behavioral Study of Obedience" (Milgram, 1963), and "Attribution Versus Persuasion as a Means for Modifying Behavior" (Miller, Brickman, & Bolen, 1975).

Then, imagine yourself as a consultant in one of the following scenarios. You are responsible for developing a plan to modify behavior, which will be based on social psychological insight. Select one of the following options and design a program, supporting your answer with scholarly and peer-reviewed sources. Explain to the individual in the scenario, in layperson's terms, relevant theory and research that addresses the social psychological variables involved. Summarize a clear intervention strategy, formulating advice regarding future behavior.

- A business executive seeks assistance in creating a comprehensive plan to market a product. [You may choose the product.]
- A lawyer is requesting insight regarding jury behavior in order to achieve more favorable trial outcomes.
- A prominent member of the community is considering a run for political office and would like advice regarding successful campaign strategies.
- A doctor is concerned about rising rates of illness due to personal behavior and wishes to provide appropriate counsel to patients in order to change behavior for the better. [You may specify the type of illness or behaviors, as necessary.]
- A substance abuse counselor is alarmed by recent statistics on drug and alcohol use amongst younger and younger children and would like to design a targeted program to address this issue.
- Other (as provided/approved by your instructor)

Your initial post should be 500-1000 words in length and must contain at minimum required course resources as applicable. Additional credible references are encouraged.

EBSCO Publishing Citation Format: APA (American Psychological Assoc.):

NOTE: Review the instructions at http://support.ebsco.com.proxy-library.ashford.edu/help/?int=ehost&lang=&feature_id=APA and make any necessary corrections before using. **Pay special attention to personal names, capitalization, and dates.** Always consult your library resources for the exact formatting and punctuation guidelines.

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Harnessing the Science of Persuasion

A LUCKY FEW HAVE IT; most of us do not. A handful of gifted "naturals" simply know how to capture an audience, sway the undecided, and convert the opposition. Watching these masters of persuasion work their magic is at once impressive and frustrating. What's impressive is not just the easy way they use charisma and eloquence to convince others to do as they ask. It's also how eager those others are to do what's requested of them, as if the persuasion itself were a favor they couldn't wait to repay.

The frustrating part of the experience is that these born persuaders are often unable to account for their remarkable skill or pass it on to others. Their way with people is an art, and artists as a rule are far better at doing than at explaining. Most of them can't offer much help to those of us who possess no more than the ordinary quotient of charisma and eloquence but who still have to wrestle with leadership's fundamental challenge: getting things done through others. That challenge is painfully familiar to corporate executives, who every day have to figure out how to motivate and direct a highly individualistic work force. Playing the "Because I'm the boss" card is out. Even if it weren't demeaning and demoralizing for all concerned, it would be out of place in a world where cross-functional teams, joint ventures, and intercompany partnerships have blurred the lines of authority. In such an environment, persuasion skills exert far greater influence over others' behavior than formal power structures do. No leader can succeed without mastering the art of persuasion. But there's hard science in that skill, too, and a large body of psychological research suggests there are six basic laws of winning friends and influencing people.

Which brings us back to where we started. Persuasion skills may be more necessary than ever, but how can executives acquire them if the most talented practitioners can't pass them along? By looking to science. For the past five decades, behavioral scientists have conducted experiments that shed considerable light on the way certain interactions lead people to concede, comply, or change. This

research shows that persuasion works by appealing to a limited set of deeply rooted human drives and needs, and it does so in predictable ways. Persuasion, in other words, is governed by basic principles that can be taught, learned, and applied. By mastering these principles, executives can bring scientific rigor to the business of securing consensus, cutting deals, and winning concessions. In the pages that follow, I describe six fundamental principles of persuasion and suggest a few ways that executives can apply them in their own organizations.

THE PRINCIPLE OF Liking: People like those who like them.

THE APPLICATION: Uncover real similarities and offer genuine praise.

The retailing phenomenon known as the Tupperware party is a vivid illustration of this principle in action. The demonstration party for Tupperware products is hosted by an individual, almost always a woman, who invites to her home an array of friends, neighbors, and relatives. The guests' affection for their hostess predisposes them to buy from her, a dynamic that was confirmed by a 1990 study of purchase decisions made at demonstration parties. The researchers, Jonathan Frenzen and Harry Davis, writing in the *Journal of Consumer Research*, found that the guests' fondness for their hostess weighed twice as heavily in their purchase decisions as their regard for the products they bought. So when guests at a Tupperware party buy something, they aren't just buying to please themselves. They're buying to please their hostess as well.

What's true at Tupperware parties is true for business in general: If you want to influence people, win friends. How? Controlled research has identified several factors that reliably increase liking, but two stand out as especially compelling--similarity and praise. Similarity literally draws people together. In one experiment, reported in a 1968 article in the *Journal of Personality*, participants stood physically closer to one another after learning that they shared political beliefs and social values. And in a 1963 article in *American Behavioral Scientists*, researcher F. B. Evans used demographic data from insurance company records to demonstrate that prospects were more willing to purchase a policy from a salesperson who was akin to them in age, religion, politics, or even cigarette-smoking habits.

Managers can use similarities to create bonds with a recent hire, the head of another department, or even a new boss. Informal conversations during the workday create an ideal opportunity to discover at least one common area of enjoyment, be it a hobby, a college basketball team, or reruns of *Seinfeld*. The important thing is to establish the bond early because it creates a presumption of goodwill and trustworthiness in every subsequent encounter. It's much easier to build support for a new project when the people you're trying to persuade are already inclined in your favor.

Praise, the other reliable generator of affection, both charms and disarms. Sometimes the praise doesn't even have to be merited. Researchers at the University of North Carolina writing in the *Journal of Experimental Social Psychology* found that men felt the greatest regard for an individual who flattered them unstintingly even if the comments were untrue. And in their book *Interpersonal Attraction* (Addison-Wesley, 1978), Ellen Berscheid and Elaine Hatfield Walster presented experimental data showing that positive remarks about another person's traits, attitude, or performance reliably generates liking in return, as well as willing compliance with the wishes of the person offering the praise.

Along with cultivating a fruitful relationship, adroit managers can also use praise to repair one that's damaged or unproductive. Imagine you're the manager of a good-sized unit within your organization. Your work frequently brings you into contact with another manager--call him Dan-- whom you have

come to dislike. No matter how much you do for him, it's not enough. Worse, he never seems to believe that you're doing the best you can for him. Resenting his attitude and his obvious lack of trust in your abilities and in your good faith, you don't spend as much time with him as you know you should; in consequence, the performance of both his unit and yours is deteriorating.

The research on praise points toward a strategy for fixing the relationship. It may be hard to find, but there has to be something about Dan you can sincerely admire, whether it's his concern for the people in his department, his devotion to his family, or simply his work ethic. In your next encounter with him, make an appreciative comment about that trait. Make it clear that in this case at least, you value what he values. I predict that Dan will relax his relentless negativity and give you an opening to convince him of your competence and good intentions.

THE PRINCIPLE OF Reciprocity: People repay in kind.

THE APPLICATION: Give what you want to receive.

Praise is likely to have a warming and softening effect on Dan because, ornery as he is, he is still human and subject to the universal human tendency to treat people the way they treat him. If you have ever caught yourself smiling at a coworker just because he or she smiled first, you know how this principle works.

Charities rely on reciprocity to help them raise funds. For years, for instance, the Disabled American Veterans organization, using only a well-crafted fund-raising letter, garnered a very respectable 18% rate of response to its appeals. But when the group started enclosing a small gift in the envelope, the response rate nearly doubled to 35%. The gift-- personalized address labels-- was extremely modest, but it wasn't what prospective donors received that made the difference. It was that they had gotten anything at all.

What works in that letter works at the office, too. It's more than an effusion of seasonal spirit, of course, that impels suppliers to shower gifts on purchasing departments at holiday time. In 1996, purchasing managers admired to an interviewer from Inc. magazine that after having accepted a gift from a supplier, they were willing to purchase products and services they would have otherwise declined. Gifts also have a startling effect on retention. I have encouraged readers of my book to send me examples of the principles of influence at work in their own lives. One reader, an employee of the State of Oregon, sent a letter in which she offered these reasons for her commitment to her supervisor:

He gives me and my son gifts for Christmas and gives me presents on my birthday. There is no promotion for the type of job I have, and my only choice for one is to move to another department. But I find myself resisting trying to move. My boss is reaching retirement age, and I am thinking I will be able to move out after he retires.... [F]or now, I feel obligated to stay since he has been so nice to me.

Ultimately, though, gift giving is one of the cruder applications of the rule of reciprocity. In its more sophisticated uses, it confers a genuine first-mover advantage on any manager who is trying to foster positive attitudes and productive personal relationships in the office: Managers can elicit the desired behavior from coworkers and employees by displaying it first. Whether it's a sense of trust, a spirit of cooperation, or a pleasant demeanor, leaders should model the behavior they want to see from others.

The same holds true for managers faced with issues of information delivery and resource allocation. If you lend a member of your staff to a colleague who is shorthanded and staring at a fast-approaching deadline, you will significantly increase your chances of getting help when you need it. Your odds will improve even more if you say, when your colleague thanks you for the assistance, something like, "Sure, glad to help. I know how important it is for me to count on your help when I need it."

THE PRINCIPLE OF Social Proof: People follow the lead of similar others.

The APPLICATION: Use peer power whenever it's available.

Social creatures that they are, human beings rely heavily on the people around them for cues on how to think, feel, and act. We know this intuitively, but intuition has also been confirmed by experiments, such as the one first described in 1982 in the *Journal of Applied Psychology*. A group of researchers went door-to-door in Columbia, South Carolina, soliciting donations for a charity campaign and displaying a list of neighborhood residents who had already donated to the cause. The researchers found that the longer the donor list was, the more likely those solicited would be to donate as well.

To the people being solicited, the friends' and neighbors' names on the list were a form of social evidence about how they should respond. But the evidence would not have been nearly as compelling had the names been those of random strangers. In an experiment from the 1960s, first described in the *Journal of Personality and Social Psychology*, residents of New York City were asked to return a lost wallet to its owner. They were highly likely to attempt to return the wallet when they learned that another New Yorker had previously attempted to do so. But learning that someone from a foreign country had tried to return the wallet didn't sway their decision one way or the other.

The lesson for executives from these two experiments is that persuasion can be extremely effective when it comes from peers. The science supports what most sales professionals already know: Testimonials from satisfied customers work best when the satisfied customer and the prospective customer share similar circumstances. That lesson can help a manager faced with the task of selling a new corporate initiative. Imagine that you're trying to streamline your department's work processes. A group of veteran employees is resisting. Rather than try to convince the employees of the move's merits yourself, ask an old-timer who supports the initiative to speak up for it at a team meeting. The compatriot's testimony stands a much better chance of convincing the group than yet another speech from the boss. Stated simply, influence is often best exerted horizontally rather than vertically.

THE PRINCIPLE OF Consistency: People align with their clear commitments.

THE APPLICATION: Make their commitments active, public, and voluntary.

Liking is a powerful force, but the work of persuasion involves more than simply making people feel warmly toward you, your idea, or your product. People need not only to like you but to feel committed to what you want them to do. Good turns are one reliable way to make people feel obligated to you. Another is to win a public commitment from them.

My own research has demonstrated that most people, once they take a stand or go on record in favor of a position, prefer to stick to it. Other studies reinforce that finding and go on to show how even a small, seemingly trivial commitment can have a powerful effect on future actions. Israeli researchers writing in 1983 in the *Personality, and Social Psychology Bulletin* recounted how they asked half the residents of a

large apartment complex to sign a petition favoring the establishment of a recreation center for the handicapped. The cause was good and the request was small, so almost everyone who was asked agreed to sign. Two weeks later, on National Collection Day for the Handicapped, all residents of the complex were approached at home and asked to give to the cause. A little more than half of those who were not asked to sign the petition made a contribution. But an astounding 92% of those who did sign donated money. The residents of the apartment complex felt obligated to live up to their commitments because those commitments were active, public, and voluntary. These three features are worth considering separately.

There's strong empirical evidence to show that a choice made actively -- one that's spoken out loud or written down or otherwise made explicit -- is considerably more likely to direct someone's future conduct than the same choice left unspoken. Writing in 1996 in the *Personality and Social Psychology Bulletin*, Delia Cioffi and Randy Garner described an experiment in which college students in one group were asked to fill out a printed form saying they wished to volunteer for an AIDS education project in the public schools. Students in another group volunteered for the same project by leaving blank a form stating that they didn't want to participate. A few days later, when the volunteers reported for duty, 74% of those who showed up were students from the group that signaled their commitment by filling out the form.

The implications are clear for a manager who wants to persuade a subordinate to follow some particular course of action: Get it in writing. Let's suppose you want your employee to submit reports in a more timely fashion. Once you believe you've won agreement, ask him to summarize the decision in a memo and send it to you. By doing so, you'll have greatly increased the odds that he'll fulfill the commitment because, as a rule, people live up to what they have written down.

Research into the social dimensions of commitment suggests that written statements become even more powerful when they're made public. In a classic experiment, described in 1955 in the *Journal of Abnormal and Social Psychology*, college students were asked to estimate the length of lines projected on a screen. Some students were asked to write down their choices on a piece of paper, sign it, and hand the paper to the experimenter. Others wrote their choices on an erasable slate, then erased the slate immediately. Still others were instructed to keep their decisions to themselves.

The experimenters then presented all three groups with evidence that their initial choices may have been wrong. Those who had merely kept their decisions in their heads were the most likely to reconsider their original estimates. More loyal to their first guesses were the students in the group that had written them down and immediately erased them. But by a wide margin, the ones most reluctant to shift from their original choices were those who had signed and handed them to the researcher.

This experiment highlights how much most people wish to appear consistent to others. Consider again the matter of the employee who has been submitting late reports. Recognizing the power of this desire, you should, once you've successfully convinced him of the need to be more timely, reinforce the commitment by making sure it gets a public airing. One way to do that would be to send the employee an e-mail that reads, "I think your plan is just what we need. I showed it to Diane in manufacturing and Phil in shipping, and they thought it was right on target, too? Whatever way such commitments are formalized, they should never be like the New Year's resolutions people privately make and then abandon with no one the wiser. They should be publicly made and visibly posted.

More than 300 years ago, Samuel Butler wrote a couplet that explains succinctly why commitments must be voluntary to be lasting and effective: "He that complies against his will/Is of his own opinion still." If an undertaking is forced, coerced, or imposed from the outside, it's not a commitment; it's an unwelcome burden. Think how you would react if your boss pressured you to donate to the campaign of a political candidate. Would that make you more apt to opt for that candidate in the privacy of a voting booth? Not likely. In fact, in their 1981 book *Psychological Reactance* (Academic Press), Sharon S. Brehm and Jack W. Brehm present data that suggest you'd vote the opposite way just to express your resentment of the boss's coercion.

This kind of backlash can occur in the office, too. Let's return again to that tardy employee. If you want to produce an enduring change in his behavior, you should avoid using threats or pressure tactics to gain his compliance. He'd likely view any change in his behavior as the result of intimidation rather than a personal commitment to change. A better approach would be to identify something that the employee genuinely values in the workplace -- high-quality workmanship, perhaps, or team spirit -- and then describe how timely reports are consistent with those values. That gives the employee reasons for improvement that he can own. And because he owns them, they'll continue to guide his behavior even when you're not watching.

THE PRINCIPLE OF Authority: People defer to experts.

THE APPLICATION: Expose your expertise; don't assume it's self-evident.

Two thousand years ago, the Roman poet Virgil offered this simple counsel to those seeking to choose correctly: "Believe an expert." That may or may not be good advice, but as a description of what people actually do, it can't be beaten. For instance, when the news media present an acknowledged expert's views on a topic, the effect on public opinion is dramatic. A single expert-opinion news story in the New York Times is associated with a 2% shift in public opinion nationwide, according to a 1993 study described in the *Public Opinion Quarterly*. And researchers writing in the *American Political Science Review* in 1987 found that when the expert's view was aired on national television, public opinion shifted as much as 4%. A cynic might argue that these findings only illustrate the docile submissiveness of the public. But a fairer explanation is that, amid the teeming complexity of contemporary life, a well-selected expert offers a valuable and efficient shortcut to good decisions. Indeed, some questions, be they legal, financial, medical, or technological, require so much specialized knowledge to answer, we have no choice but to rely on experts.

Since there's good reason to defer to experts, executives should take pains to ensure that they establish their own expertise before they attempt to exert influence. Surprisingly often, people mistakenly assume that others recognize and appreciate their experience. That's what happened at a hospital where some colleagues and I were consulting. The physical therapy staffers were frustrated because so many of their stroke patients abandoned their exercise routines as soon as they left the hospital. No matter how often the staff emphasized the importance of regular home exercise -- it is, in fact, crucial to the process of regaining independent function -- the message just didn't sink in.

Interviews with some of the patients helped us pinpoint the problem. They were familiar with the background and training of their physicians, but the patients knew little about the credentials of the physical therapists who were urging them to exercise. It was a simple matter to remedy that lack of information: We merely asked the therapy director to display all the awards, diplomas, and certifications

of her staff on the walls of the therapy rooms. The result was startling: Exercise compliance jumped 34% and has never dropped since.

What we found immensely gratifying was not just how much we increased compliance, but how. We didn't fool or browbeat any of the patients. We informed them into compliance. Nothing had to be invented; no time or resources had to be spent in the process. The staff's expertise was real -- all we had to do was make it more visible.

The task for managers who want to establish their claims to expertise is somewhat more difficult. They can't simply nail their diplomas to the wall and wait for everyone to notice. A little subtlety is called for. Outside the United States, it is customary for people to spend time interacting socially before getting down to business for the first time. Frequently they gather for dinner the night before their meeting or negotiation. These get-togethers can make discussions easier and help blunt disagreements--remember the findings about liking and similarity-- and they can also provide an opportunity to establish expertise. Perhaps it's a matter of telling an anecdote about successfully solving a problem similar to the one that's on the agenda at the next day's meeting. Or perhaps dinner is the time to describe years spent mastering a complex discipline -- not in a boastful way but as part of the ordinary give-and-take of conversation.

Granted, there's not always time for lengthy introductory sessions. But even in the course of the preliminary conversation that precedes most meetings, there is almost always an opportunity to touch lightly on your relevant background and experience as a natural part of a sociable exchange. This initial disclosure of personal information gives you a chance to establish expertise early in the game, so that when the discussion turns to the business at hand, what you have to say will be accorded the respect it deserves.

THE PRINCIPLE OF Scarcity: People want more of what they can have less of.

THE APPLICATION: Highlight unique benefits and exclusive information.

Study after study shows that items and opportunities are seen to be more valuable as they become less available. That's a tremendously useful piece of information for managers. They can harness the scarcity principle with the organizational equivalents of limited-time, limited-supply, and one-of-a-kind offers. Honestly informing a coworker of a closing window of opportunity--the chance to get the boss's ear before she leaves for an extended vacation, perhaps--can mobilize action dramatically.

Managers can learn from retailers how to frame their offers not in terms of what people stand to gain but in terms of what they stand to lose if they don't act on the information. The power of "loss language" was demonstrated in a 1988 study of California home owners written up in the *Journal of Applied Psychology*. Half were told that if they fully insulated their homes, they would save a certain amount of money each day. The other half were told that if they failed to insulate, they would lose that amount each day. Significantly more people insulated their homes when exposed to the loss language. The same phenomenon occurs in business. According to a 1994 study in the journal *Organizational Behavior and Human Decision Processes*, potential losses figure far more heavily in managers' decision making than potential gains.

In framing their offers, executives should also remember that exclusive information is more persuasive than widely available data. A doctoral student of mine, Amram Knishinsky, wrote his 1982 dissertation

on the purchase decisions of wholesale beef buyers. He observed that they more than doubled their orders when they were told that, because of certain weather conditions overseas, there was likely to be a scarcity of foreign beef in the near future. But their orders increased 600% when they were informed that no one else had that information yet.

The persuasive power of exclusivity can be harnessed by any manager who comes into possession of information that's not broadly available and that supports an idea or initiative he or she would like the organization to adopt. The next time that kind of information crosses your desk, round up your organization's key players. The information itself may seem dull, but exclusivity will give it a special sheen. Push it across your desk and say, "I just got this report today. It won't be distributed until next week, but I want to give you an early look at what it shows." Then watch your listeners lean forward.

Allow me to stress here a point that should be obvious. No offer of exclusive information, no exhortation to act now or miss this opportunity forever should be made unless it is genuine. Deceiving colleagues into compliance is not only ethically objectionable, it's foolhardy. If the deception is detected -- and it certainly will be -- it will snuff out any enthusiasm the offer originally kindled. It will also invite dishonesty toward the deceiver. Remember the rule of reciprocity.

Putting It All Together

There's nothing abstruse or obscure about these six principles of persuasion. Indeed, they neatly codify our intuitive understanding of the ways people evaluate information and form decisions. As a result, the principles are easy for most people to grasp, even those with no formal education in psychology. But in the seminars and workshops I conduct, I have learned that two points bear repeated emphasis.

First, although the six principles and their applications can be discussed separately for the sake of clarity, they should be applied in combination to compound their impact. For instance, in discussing the importance of expertise, I suggested that managers use informal, social conversations to establish their credentials. But that conversation affords an opportunity to gain information as well as convey it. While you're showing your dinner companion that you have the skills and experience your business problem demands, you can also learn about your companion's background, likes, and dislikes-- information that will help you locate genuine similarities and give sincere compliments. By letting your expertise surface and also establishing rapport, you double your persuasive power. And if you succeed in bringing your dinner partner on board, you may encourage other people to sign on as well, thanks to the persuasive power of social evidence.

The other point I wish to emphasize is that the rules of ethics apply to the science of social influence just as they do to any other technology. Not only is it ethically wrong to trick or trap others into assent, it's ill-advised in practical terms. Dishonest or high-pressure tactics work only in the short run, if at all. Their long-term effects are malignant, especially within an organization, which can't function properly without a bedrock level of trust and cooperation.

That point is made vividly in the following account, which a department head for a large textile manufacturer related at a training workshop I conducted. She described a vice president in her company who wrung public commitments from department heads in a highly manipulative manner. Instead of giving his subordinates time to talk or think through his proposals carefully, he would approach them individually at the busiest moment of their workday and describe the benefits of his plan in exhaustive, patience-straining detail. Then he would move in for the kill. "It's very important for me to see you as being on my team on this," he would say. "Can I count on your support?" Intimidated, frazzled, eager to

chase the man from their offices so they could get back to work, the department heads would invariably go along with his request. But because the commitments never felt voluntary, the department heads never followed through, and as a result the vice president's initiatives all blew up or petered out.

This story had a deep impact on the other participants in the workshop. Some gulped in shock as they recognized their own manipulative behavior. But what stopped everyone cold was the expression on the department head's face as she recounted the damaging collapse of her superior's proposals. She was smiling.

Nothing I could say would more effectively make the point that the deceptive or coercive use of the principles of social influence is ethically wrong and pragmatically wrongheaded. Yet the same principles, if applied appropriately, can steer decisions correctly. Legitimate expertise, genuine obligations, authentic similarities, real social proof, exclusive news, and freely made commitments can produce choices that are likely to benefit both parties. And any approach that works to everyone's mutual benefit is good business, don't you think? Of course, I don't want to press you into it, but, if you agree, I would love it if you could just jot me a memo to that effect.

Persuasion Experts, Safe at Last

Thanks to several decades of rigorous empirical research by behavioral scientists, our understanding of the how and why of persuasion has never been broader, deeper, or more detailed. But these scientists aren't the first students of the subject. The history of persuasion studies is an ancient and honorable one, and it has generated a long roster of heroes and martyrs.

A renowned student of social influence, William McGuire, contends in a chapter of the *Handbook of Social Psychology*, 3rd ed. (Oxford University Press, 1985) that scattered among the more than four millennia of recorded Western history are four centuries in which the study of persuasion flourished as a craft. The first was the Periclean Age of ancient Athens, the second occurred during the years of the Roman Republic, the next appeared in the time of the European Renaissance, and the last extended over the hundred years that have just ended, which witnessed the advent of large-scale advertising, information, and mass media campaigns. Each of the three previous centuries of systematic persuasion study was marked by a flowering of human achievement that was suddenly cut short when political authorities had the masters of persuasion killed. The philosopher Socrates is probably the best known of the persuasion experts to run afoul of the powers that be.

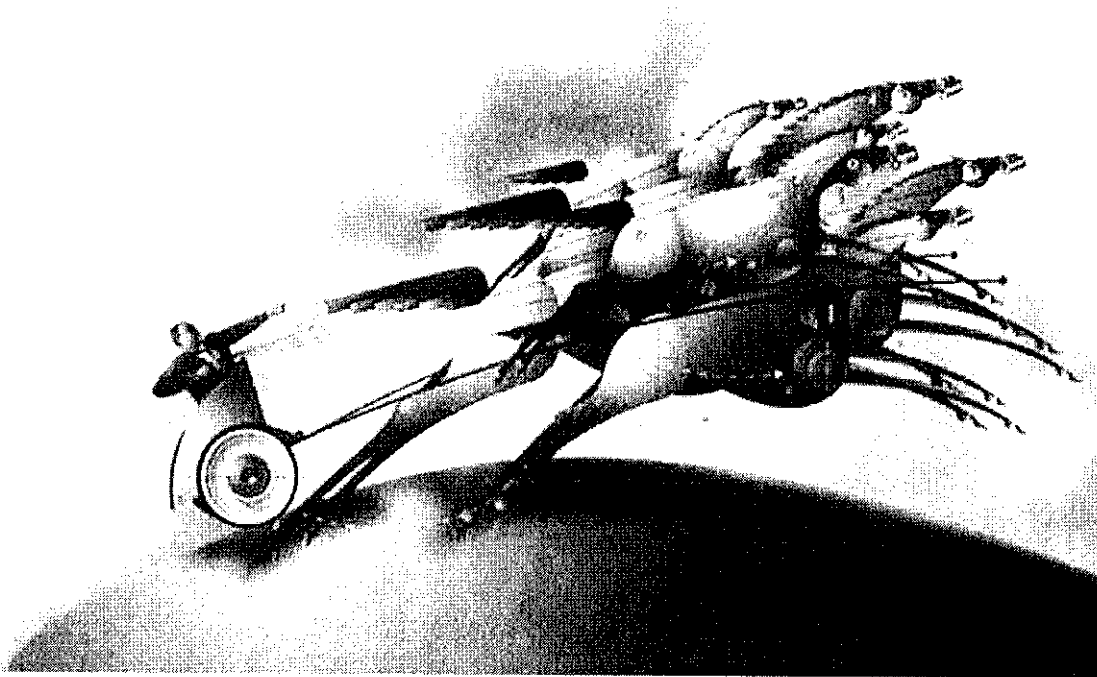
Information about the persuasion process is a threat because it creates a base of power entirely separate from the one controlled by political authorities. Faced with a rival source of influence, rulers in previous centuries had few qualms about eliminating those rare individuals who truly understood how to marshal forces that heads of state have never been able to monopolize, such as cleverly crafted language, strategically placed information, and, most important, psychological insight.

It would perhaps be expressing too much faith in human nature to claim that persuasion experts no longer face a threat from those who wield political power. But because the truth about persuasion is no longer the sole possession of a few brilliant, inspired individuals, experts in the field can presumably breathe a little easier. Indeed, since most people in power are interested in remaining in power, they're likely to be more interested in acquiring persuasion skills than abolishing them.

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S (COLOR): No leader can succeed without mastering the art of persuasion. But there's hard science in that skill, too, and a large body of psychological research suggests there are six basic laws of winning friends and influencing people.

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By Robert B. Cialdini

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## BEHAVIORAL STUDY OF OBEDIENCE<sup>1</sup>

STANLEY MILGRAM<sup>2</sup>

*Yale University*

This article describes a procedure for the study of destructive obedience in the laboratory. It consists of ordering a naive S to administer increasingly more severe punishment to a victim in the context of a learning experiment. Punishment is administered by means of a shock generator with 30 graded switches ranging from Slight Shock to Danger: Severe Shock. The victim is a confederate of the E. The primary dependent variable is the maximum shock the S is willing to administer before he refuses to continue further. 26 Ss obeyed the experimental commands fully, and administered the highest shock on the generator. 14 Ss broke off the experiment at some point after the victim protested and refused to provide further answers. The procedure created extreme levels of nervous tension in some Ss. Profuse sweating, trembling, and stuttering were typical expressions of this emotional disturbance. One unexpected sign of tension—yet to be explained—was the regular occurrence of nervous laughter, which in some Ss developed into uncontrollable seizures. The variety of interesting behavioral dynamics observed in the experiment, the reality of the situation for the S, and the possibility of parametric variation within the framework of the procedure, point to the fruitfulness of further study.

Obedience is as basic an element in the structure of social life as one can point to. Some system of authority is a requirement of all communal living, and it is only the man dwelling in isolation who is not forced to respond, through defiance or submission, to the commands of others. Obedience, as a determinant of behavior, is of particular relevance to our time. It has been reliably established that from 1933-45 millions of innocent persons were systematically slaughtered on command. Gas chambers were built, death camps were guarded, daily quotas of corpses were produced with the same efficiency as the manufacture of appliances. These inhumane policies may have originated in the mind of a single person, but they could only be carried out on a massive scale if a very large number of persons obeyed orders.

Obedience is the psychological mechanism that links individual action to political purpose. It is the dispositional cement that binds men to systems of authority. Facts of recent history and observation in daily life suggest

that for many persons obedience may be a deeply ingrained behavior tendency, indeed, a prepotent impulse overriding training in ethics, sympathy, and moral conduct. C. P. Snow (1961) points to its importance when he writes:

When you think of the long and gloomy history of man, you will find more hideous crimes have been committed in the name of obedience than have ever been committed in the name of rebellion. If you doubt that, read William Shirer's "Rise and Fall of the Third Reich." The German Officer Corps were brought up in the most rigorous code of obedience . . . in the name of obedience they were party to, and assisted in, the most wicked large scale actions in the history of the world [p. 24].

While the particular form of obedience dealt with in the present study has its antecedents in these episodes, it must not be thought all obedience entails acts of aggression against others. Obedience serves numerous productive functions. Indeed, the very life of society is predicated on its existence. Obedience may be ennobling and educative and refer to acts of charity and kindness, as well as to destruction.

### *General Procedure*

A procedure was devised which seems useful as a tool for studying obedience (Milgram, 1961). It consists of ordering

<sup>1</sup> This research was supported by a grant (NSF G-17916) from the National Science Foundation. Exploratory studies conducted in 1960 were supported by a grant from the Higgins Fund at Yale University. The research assistance of Alan C. Elms and Jon Wayland is gratefully acknowledged.

<sup>2</sup> Now at Harvard University.

a naive subject to administer electric shock to a victim. A simulated shock generator is used, with 30 clearly marked voltage levels that range from 15 to 450 volts. The instrument bears verbal designations that range from Slight Shock to Danger: Severe Shock. The responses of the victim, who is a trained confederate of the experimenter, are standardized. The orders to administer shocks are given to the naive subject in the context of a "learning experiment" ostensibly set up to study the effects of punishment on memory. As the experiment proceeds the naive subject is commanded to administer increasingly more intense shocks to the victim, even to the point of reaching the level marked Danger: Severe Shock. Internal resistances become stronger, and at a certain point the subject refuses to go on with the experiment. Behavior prior to this rupture is considered "obedience," in that the subject complies with the commands of the experimenter. The point of rupture is the act of disobedience. A quantitative value is assigned to the subject's performance based on the maximum intensity shock he is willing to administer before he refuses to participate further. Thus for any particular subject and for any particular experimental condition the degree of obedience may be specified with a numerical value. The crux of the study is to systematically vary the factors believed to alter the degree of obedience to the experimental commands.

The technique allows important variables to be manipulated at several points in the experiment. One may vary aspects of the source of command, content and form of command, instrumentalities for its execution, target object, general social setting, etc. The problem, therefore, is not one of designing increasingly more numerous experimental conditions, but of selecting those that best illuminate the *process* of obedience from the sociopsychological standpoint.

#### Related Studies

The inquiry bears an important relation to philosophic analyses of obedience and authority (Arendt, 1958; Friedrich, 1958; Weber, 1947), an early experimental study of obedience by Frank (1944), studies in "authoritarianism" (Adorno, Frenkel-Brunswick,

Levinson, & Sanford, 1950; Rokeach, 1961), and a recent series of analytic and empirical studies in social power (Cartwright, 1959). It owes much to the long concern with *suggestion* in social psychology, both in its normal forms (e.g., Binet, 1900) and in its clinical manifestations (Charcot, 1881). But it derives, in the first instance, from direct observation of a social fact; the individual who is commanded by a legitimate authority ordinarily obeys. Obedience comes easily and often. It is a ubiquitous and indispensable feature of social life.

#### METHOD

##### Subjects

The subjects were 40 males between the ages of 20 and 50, drawn from New Haven and the surrounding communities. Subjects were obtained by a newspaper advertisement and direct mail solicitation. Those who responded to the appeal believed they were to participate in a study of memory and learning at Yale University. A wide range of occupations is represented in the sample. Typical subjects were postal clerks, high school teachers, salesmen, engineers, and laborers. Subjects ranged in educational level from one who had not finished elementary school, to those who had doctorate and other professional degrees. They were paid \$4.50 for their participation in the experiment. However, subjects were told that payment was simply for coming to the laboratory, and that the money was theirs no matter what happened after they arrived. Table 1 shows the proportion of age and occupational types assigned to the experimental condition.

##### Personnel and Locale

The experiment was conducted on the grounds of Yale University in the elegant interaction laboratory. (This detail is relevant to the perceived legitimacy of the experiment. In further variations, the experi-

TABLE 1  
DISTRIBUTION OF AGE AND OCCUPATIONAL TYPES  
IN THE EXPERIMENT

| Occupations                       | 20-29<br>years<br>n | 30-39<br>years<br>n | 40-50<br>years<br>n | Percentage<br>of total<br>(Occupations) |
|-----------------------------------|---------------------|---------------------|---------------------|-----------------------------------------|
| Workers, skilled and unskilled    | 4                   | 5                   | 6                   | 37.5                                    |
| Sales, business, and white-collar | 3                   | 6                   | 7                   | 40.0                                    |
| Professional                      | 1                   | 5                   | 3                   | 22.5                                    |
| Percentage of total (Age)         | 20                  | 40                  | 40                  |                                         |

Note.—Total N = 40.

ment was dissociated from the university, with consequences for performance.) The role of experimenter was played by a 31-year-old high school teacher of biology. His manner was impassive, and his appearance somewhat stern throughout the experiment. He was dressed in a gray technician's coat. The victim was played by a 47-year-old accountant, trained for the role; he was of Irish-American stock, whom most observers found mild-mannered and likable.

### Procedure

One naive subject and one victim (an accomplice) performed in each experiment. A pretext had to be devised that would justify the administration of electric shock by the naive subject. This was effectively accomplished by the cover story. After a general introduction on the presumed relation between punishment and learning, subjects were told:

But actually, we know *very little* about the effect of punishment on learning, because almost no truly scientific studies have been made of it in human beings.

For instance, we don't know how *much* punishment is best for learning—and we don't know how much difference it makes as to who is giving the punishment, whether an adult learns best from a younger or an older person than himself—or many things of that sort.

So in this study we are bringing together a number of adults of different occupations and ages. And we're asking some of them to be teachers and some of them to be learners.

We want to find out just what effect different people have on each other as teachers and learners, and also what effect *punishment* will have on learning in this situation.

Therefore, I'm going to ask one of you to be the teacher here tonight and the other one to be the learner.

Does either of you have a preference?

Subjects then drew slips of paper from a hat to determine who would be the teacher and who would be the learner in the experiment. The drawing was rigged so that the naive subject was always the teacher and the accomplice always the learner. (Both slips contained the word "Teacher.") Immediately after the drawing, the teacher and learner were taken to an adjacent room and the learner was strapped into an "electric chair" apparatus.

The experimenter explained that the straps were to prevent excessive movement while the learner was being shocked. The effect was to make it impossible for him to escape from the situation. An electrode was attached to the learner's wrist, and electrode paste was applied "to avoid blisters and burns." Subjects were told that the electrode was attached to the shock generator in the adjoining room.

In order to improve credibility the experimenter declared, in response to a question by the learner: "Although the shocks can be extremely painful, they cause no permanent tissue damage."

**Learning task.** The lesson administered by the subject was a paired-associate learning task. The subject read a series of word pairs to the learner, and then read the first word of the pair along with four terms. The learner was to indicate which of the four terms had originally been paired with the first word. He communicated his answer by pressing one of four switches in front of him, which in turn lit up one of four numbered quadrants in an answer-box located atop the shock generator.

**Shock generator.** The instrument panel consists of 30 lever switches set in a horizontal line. Each switch is clearly labeled with a voltage designation that ranges from 15 to 450 volts. There is a 15-volt increment from one switch to the next going from left to right. In addition, the following verbal designations are clearly indicated for groups of four switches going from left to right: Slight Shock, Moderate Shock, Strong Shock, Very Strong Shock, Intense Shock, Extreme Intensity Shock, Danger: Severe Shock. (Two switches after this last designation are simply marked XXX.)

Upon depressing a switch: a pilot light corresponding to each switch is illuminated in bright red; an electric buzzing is heard; an electric blue light, labeled "voltage energizer," flashes; the dial on the voltage meter swings to the right; various relay clicks are sounded.

The upper left-hand corner of the generator is labeled Shock Generator, Type ZLB, Dyson Instrument Company, Waltham, Mass. Output 15 Volts-450 Volts.

Details of the instrument were carefully handled to insure an appearance of authenticity. The panel was engraved by precision industrial engravers, and all components were of high quality. No subject in the experiment suspected that the instrument was merely a simulated shock generator.<sup>8</sup>

**Sample shock.** Each naive subject is given a sample shock on the shock generator, prior to beginning his run as teacher. This shock is always 45 volts, and is applied by pressing the third switch of the generator. The shock is applied to the wrist of the naive subject, and has its source in a 45-volt battery wired into the generator. This further convinces the subject of the authenticity of the generator.

**Shock instructions.** The subject is told to administer a shock to the learner each time he gives a

<sup>8</sup> A related technique, making use of a shock generator, was reported by Buss (1961) for the study of aggression in the laboratory. Despite the considerable similarity of technical detail in the experimental procedures, both investigators proceeded in ignorance of the other's work. Milgram provided plans and photographs of his shock generator, experimental procedure, and first results in a report to the National Science Foundation in January 1961. This report received only limited circulation. Buss reported his procedure 6 months later, but to a wider audience. Subsequently, technical information and reports were exchanged. The present article was first received in the Editor's office on December 27, 1961; it was resubmitted with deletions on July 27, 1962.

wrong response. Moreover—and this is the key command—the subject is instructed to “move one level higher on the shock generator each time the learner flashes a wrong answer.” He is also instructed to announce the voltage level before administering a shock. This serves to continually remind subjects of the increasing intensity of shocks administered to the learner.

*Preliminary and regular run.* Pretests revealed that the procedure of reading words and administering shocks requires some practice before it can be handled smoothly. Therefore, immediately preceding the regular run, the teacher is given a preliminary series of 10 words to read to the learner. There are 3 neutral words in the practice series (i.e., words that the learner answers correctly), so that shocks are administered for 7 of the words, with the maximum shock at 105 volts (moderate shock). Almost all subjects master the procedure by the time the preliminary run is over.

Subjects are then presented with a second list, and are told that the procedure is the same as for the first list; the experimenter adds, however:

When you get to the bottom of the list, repeat it over again, and continue giving shocks, until the learner has learned all the pairs correctly.

The experimenter instructs the subject to,

start from 15 volts and increase the shock level one step each time the learner gives a wrong answer.

*Feedback from the victim.* In all conditions the learner gives a predetermined set of responses to the word pair test, based on a schedule of approximately three wrong answers to one correct answer. In the present experimental condition no vocal response or other sign of protest is heard from the learner until Shock Level 300 is reached. When the 300-volt shock is administered, the learner pounds on the wall of the room in which he is bound to the electric chair. The pounding can be heard by the subject. From this point on, the learner's answers no longer appear on the four-way panel.

At this juncture, subjects ordinarily turn to the experimenter for guidance. The experimenter instructs the subject to treat the absence of a response as a wrong answer, and to shock the subject according to the usual schedule. He advises the subjects to allow 5–10 seconds before considering no response as a wrong answer, and to increase the shock level one step each time the learner fails to respond correctly. The learner's pounding is repeated after the 315-volt shock is administered; afterwards he is not heard from, nor do his answers reappear on the four-way signal box.

*Experimenter feedback.* At various points in the experiment the subject may turn to the experimenter for advice on whether he should continue to administer shocks. Or he may indicate that he does not wish to go on. It was important to standardize the experimenter's responses to these inquiries and reactions.

If the subject indicated his unwillingness to go

on, the experimenter responded with a sequence of “prods,” using as many as necessary to bring the subject into line.

Prod 1: Please continue. *or* Please go on.

Prod 2: The experiment requires that you continue.

Prod 3: It is absolutely essential that you continue.

Prod 4: You have no other choice, you *must* go on.

The prods were always made in sequence: Only if Prod 1 had been unsuccessful, could Prod 2 be used. If the subject refused to obey the experimenter after Prod 4, the experiment was terminated. The experimenter's tone of voice was at all times firm, but not impolite. The sequence was begun anew on each occasion that the subject balked or showed reluctance to follow orders.

Special prods. If the subject asked if the learner was liable to suffer permanent physical injury, the experimenter said:

Although the shocks may be painful, there is no permanent tissue damage, so please go on. [Followed by Prods 2, 3, and 4 if necessary.]

If the subject said that the learner did not want to go on, the experimenter replied:

Whether the learner likes it or not, you must go on until he has learned all the word pairs correctly. So please go on. [Followed by Prods 2, 3, and 4 if necessary.]

### *Dependent Measures*

The primary dependent measure for any subject is the maximum shock he administers before he refuses to go any further. In principle this may vary from 0 (for a subject who refuses to administer even the first shock) to 30 (for a subject who administers the highest shock on the generator). A subject who breaks off the experiment at any point prior to administering the thirtieth shock level is termed a *defiant* subject. One who complies with experimental commands fully, and proceeds to administer all shock levels commanded, is termed an *obedient* subject.

*Further records.* With few exceptions, experimental sessions were recorded on magnetic tape. Occasional photographs were taken through one-way mirrors. Notes were kept on any unusual behavior occurring during the course of the experiments. On occasion, additional observers were directed to write objective descriptions of the subjects' behavior. The latency and duration of shocks were measured by accurate timing devices.

*Interview and dehoax.* Following the experiment, subjects were interviewed; open-ended questions, projective measures, and attitude scales were employed. After the interview, procedures were undertaken to assure that the subject would leave the laboratory in a state of well being. A friendly reconciliation was arranged between the subject and the victim, and an effort was made to reduce any tensions that arose as a result of the experiment.

## RESULTS

*Preliminary Notions*

Before giving an account of the experimental results, it is instructive to consider how persons predict others will perform when commanded to administer powerful shocks to another person. Fourteen Yale seniors, all psychology majors, were provided with a detailed description of the experimental situation. They were asked to reflect carefully on it, and to predict the behavior of 100 hypothetical subjects. More specifically, they were instructed to plot the distribution of obedience of "100 Americans of diverse occupations, and ranging in age from 20 to 50 years," who were placed in the experimental situation.

There was considerable agreement among the respondents on the expected behavior of hypothetical subjects. All respondents predicted that only an insignificant minority would go through to the end of the shock series. (The estimates ranged from 0 to 3%; i.e., the most "pessimistic" member of the class predicted that of 100 persons, 3 would continue through to the most potent shock available on the shock generator—450 volts.) The class mean was 1.2%. The question was also posed informally to colleagues of the author, and the most general feeling was that few if any subjects would go beyond the designation Very Strong Shock.

*Result of Experiment I*

*Subjects accept situation.* With few exceptions subjects were convinced of the reality of the experimental situation, that they were administering shocks to another person, and the most potent shocks were extremely painful. In the post-experimental interview subjects were asked: "How painful to the learner were the last few shocks that you administered to him?" Subjects were instructed to indicate their answers on a printed 14-point scale ranging from "Not at all painful" to "Extremely painful." The modal response was 14 (Extremely painful) with the mean at 13.42.

*Signs of extreme tension.* Many subjects showed signs of nervousness in the experimental situation, and especially upon administering the more powerful shocks. In a

large number of cases the degree of tension reached extremes that are rarely seen in sociopsychological laboratory studies. Subjects were observed to sweat, tremble, stutter, bite their lips, groan, and dig their fingernails into their flesh. These were characteristic rather than exceptional responses to the experiment.

One sign of tension was the regular occurrence of nervous laughing fits. Fourteen of the 40 subjects showed definite signs of nervous laughter and smiling. The laughter seemed entirely out of place, even bizarre. Full-blown, uncontrollable seizures were observed for 3 subjects. On one occasion we observed a seizure so violently convulsive that it was necessary to call a halt to the experiment. The subject, a 46-year-old encyclopedia salesman, was seriously embarrassed by his untoward and uncontrollable behavior. In the post-experimental interviews subjects took pains to point out that they were not sadistic types, and that the laughter did not mean they enjoyed shocking the victim.

*Distribution of scores.* It had been conjectured that persons would not, in general, agree to administer shocks beyond the level designated as Very Strong Shock. The distribution of maximum shocks for this experiment is shown in Table 2. The obtained distribution of scores deviates radically from the prediction.

Upon command of the experimenter, each of the 40 subjects went beyond the expected breakoff point. No subject stopped prior to administering Shock Level 20. (At this level—300 volts—the victim kicks on the wall and no longer provides answers to the teacher's multiple-choice questions.)

Of the 40 subjects, 5 refused to obey the experimental commands beyond the 300-volt level. Four more subjects administered one further shock, and then refused to go on. Two broke off at the 330-volt level, and 1 each at 345, 360, and 375 volts. Thus a total of 14 subjects defied the experimenter. It is instructive to reprint their remarks at the point of defiance, as transcribed from the tape recordings:

[0124] I think he's trying to communicate, he's knocking. . . . Well it's not fair to shock the guy . . . these are terrific volts. I don't think this is

TABLE 2  
DISTRIBUTION OF BREAKOFF POINTS

| Verbal designation and voltage indication | Number of subjects for whom this was maximum shock |
|-------------------------------------------|----------------------------------------------------|
| Slight Shock                              |                                                    |
| 15                                        | 0                                                  |
| 30                                        | 0                                                  |
| 45                                        | 0                                                  |
| 60                                        | 0                                                  |
| Moderate Shock                            |                                                    |
| 75                                        | 0                                                  |
| 90                                        | 0                                                  |
| 105                                       | 0                                                  |
| 120                                       | 0                                                  |
| Strong Shock                              |                                                    |
| 135                                       | 0                                                  |
| 150                                       | 0                                                  |
| 165                                       | 0                                                  |
| 180                                       | 0                                                  |
| Very Strong Shock                         |                                                    |
| 195                                       | 0                                                  |
| 210                                       | 0                                                  |
| 225                                       | 0                                                  |
| 240                                       | 0                                                  |
| Intense Shock                             |                                                    |
| 255                                       | 0                                                  |
| 270                                       | 0                                                  |
| 285                                       | 0                                                  |
| 300                                       | 5                                                  |
| Extreme Intensity Shock                   |                                                    |
| 315                                       | 4                                                  |
| 330                                       | 2                                                  |
| 345                                       | 1                                                  |
| 360                                       | 1                                                  |
| Danger: Severe Shock                      |                                                    |
| 375                                       | 1                                                  |
| 390                                       | 0                                                  |
| 405                                       | 0                                                  |
| 420                                       | 0                                                  |
| XXX                                       |                                                    |
| 435                                       | 0                                                  |
| 450                                       | 26                                                 |

very humane. . . . Oh, I can't go on with this; no, this isn't right. It's a hell of an experiment. The guy is suffering in there. No, I don't want to go on. This is crazy. [Subject refused to administer more shocks.]

[0123] He's banging in there. I'm gonna chicken out. I'd like to continue, but I can't do that to a man. . . . I'm sorry I can't do that to a man. I'll hurt his heart. You take your check. . . . No really, I couldn't do it.

These subjects were frequently in a highly agitated and even angered state. Sometimes, verbal protest was at a minimum, and the subject simply got up from his chair in front of the shock generator, and indicated that he wished to leave the laboratory.

Of the 40 subjects, 26 obeyed the orders of the experimenter to the end, proceeding to punish the victim until they reached the most potent shock available on the shock generator. At that point, the experimenter called a halt to the session. (The maximum shock is labeled 450 volts, and is two steps beyond the designation: Danger: Severe Shock.) Although obedient subjects continued to administer shocks, they often did so under extreme stress. Some expressed reluctance to administer shocks beyond the 300-volt level, and displayed fears similar to those who defied the experimenter; yet they obeyed.

After the maximum shocks had been delivered, and the experimenter called a halt to the proceedings, many obedient subjects heaved sighs of relief, mopped their brows, rubbed their fingers over their eyes, or nervously fumbled cigarettes. Some shook their heads, apparently in regret. Some subjects had remained calm throughout the experiment, and displayed only minimal signs of tension from beginning to end.

#### DISCUSSION

The experiment yielded two findings that were surprising. The first finding concerns the sheer strength of obedient tendencies manifested in this situation. Subjects have learned from childhood that it is a fundamental breach of moral conduct to hurt another person against his will. Yet, 26 subjects abandon this tenet in following the instructions of an authority who has no special powers to enforce his commands. To disobey would bring no material loss to the subject; no punishment would ensue. It is clear from the remarks and outward behavior of many participants that in punishing the victim they are often acting against their own values. Subjects often expressed deep disapproval of shocking a man in the face of his objections, and others denounced it as stupid and senseless. Yet the majority complied with the experimental commands. This outcome was surprising from two perspectives: first, from the standpoint of predictions made in the questionnaire described earlier. (Here, however, it is possible that the remoteness of the respondents from the actual situation, and the difficulty of conveying to them the con-

crete details of the experiment, could account for the serious underestimation of obedience.)

But the results were also unexpected to persons who observed the experiment in progress, through one-way mirrors. Observers often uttered expressions of disbelief upon seeing a subject administer more powerful shocks to the victim. These persons had a full acquaintance with the details of the situation, and yet systematically underestimated the amount of obedience that subjects would display.

The second unanticipated effect was the extraordinary tension generated by the procedures. One might suppose that a subject would simply break off or continue as his conscience dictated. Yet, this is very far from what happened. There were striking reactions of tension and emotional strain. One observer related:

I observed a mature and initially poised businessman enter the laboratory smiling and confident. Within 20 minutes he was reduced to a twitching, stuttering wreck, who was rapidly approaching a point of nervous collapse. He constantly pulled on his earlobe, and twisted his hands. At one point he pushed his fist into his forehead and muttered: "Oh God, let's stop it." And yet he continued to respond to every word of the experimenter, and obeyed to the end.

Any understanding of the phenomenon of obedience must rest on an analysis of the particular conditions in which it occurs. The following features of the experiment go some distance in explaining the high amount of obedience observed in the situation.

1. The experiment is sponsored by and takes place on the grounds of an institution of unimpeachable reputation, Yale University. It may be reasonably presumed that the personnel are competent and reputable. The importance of this background authority is now being studied by conducting a series of experiments outside of New Haven, and without any visible ties to the university.

2. The experiment is, on the face of it, designed to attain a worthy purpose—advancement of knowledge about learning and memory. Obedience occurs not as an end in itself, but as an instrumental element in a situation that the subject construes as significant, and meaningful. He may not be able to see its full significance, but he may properly assume that the experimenter does.

3. The subject perceives that the victim has voluntarily submitted to the authority system of the experimenter. He is not (at first) an unwilling captive impressed for involuntary service. He has taken the trouble to come to the laboratory presumably to aid the experimental research. That he later becomes an involuntary subject does not alter the fact that, initially, he consented to participate without qualification. Thus he has in some degree incurred an obligation toward the experimenter.

4. The subject, too, has entered the experiment voluntarily, and perceives himself under obligation to aid the experimenter. He has made a commitment, and to disrupt the experiment is a repudiation of this initial promise of aid.

5. Certain features of the procedure strengthen the subject's sense of obligation to the experimenter. For one, he has been paid for coming to the laboratory. In part this is canceled out by the experimenter's statement that:

Of course, as in all experiments, the money is yours simply for coming to the laboratory. From this point on, no matter what happens, the money is yours.<sup>4</sup>

6. From the subject's standpoint, the fact that he is the teacher and the other man the learner is purely a chance consequence (it is determined by drawing lots) and he, the subject, ran the same risk as the other man in being assigned the role of learner. Since the assignment of positions in the experiment was achieved by fair means, the learner is deprived of any basis of complaint on this count. (A similar situation obtains in Army units, in which—in the absence of volunteers—a particularly dangerous mission may be assigned by drawing lots, and the unlucky soldier is expected to bear his misfortune with sportsmanship.)

7. There is, at best, ambiguity with regard to the prerogatives of a psychologist and the corresponding rights of his subject. There is a vagueness of expectation concerning what a psychologist may require of his subject, and when he is overstepping acceptable limits.

<sup>4</sup>Forty-three subjects, undergraduates at Yale University, were run in the experiment without payment. The results are very similar to those obtained with paid subjects.

Moreover, the experiment occurs in a closed setting, and thus provides no opportunity for the subject to remove these ambiguities by discussion with others. There are few standards that seem directly applicable to the situation, which is a novel one for most subjects.

8. The subjects are assured that the shocks administered to the subject are "painful but not dangerous." Thus they assume that the discomfort caused the victim is momentary, while the scientific gains resulting from the experiment are enduring.

9. Through Shock Level 20 the victim continues to provide answers on the signal box. The subject may construe this as a sign that the victim is still willing to "play the game." It is only after Shock Level 20 that the victim repudiates the rules completely, refusing to answer further.

These features help to explain the high amount of obedience obtained in this experiment. Many of the arguments raised need not remain matters of speculation, but can be reduced to testable propositions to be confirmed or disproved by further experiments.<sup>6</sup>

The following features of the experiment concern the nature of the conflict which the subject faces.

10. The subject is placed in a position in which he must respond to the competing demands of two persons: the experimenter and the victim. The conflict must be resolved by meeting the demands of one or the other; satisfaction of the victim and the experimenter are mutually exclusive. Moreover, the resolution must take the form of a highly visible action, that of continuing to shock the victim or breaking off the experiment. Thus the subject is forced into a public conflict that does not permit any completely satisfactory solution.

11. While the demands of the experimenter carry the weight of scientific authority, the demands of the victim spring from his personal experience of pain and suffering. The two claims need not be regarded as equally pressing and legitimate. The experimenter seeks an abstract scientific datum; the victim

cries out for relief from physical suffering caused by the subject's actions.

12. The experiment gives the subject little time for reflection. The conflict comes on rapidly. It is only minutes after the subject has been seated before the shock generator that the victim begins his protests. Moreover, the subject perceives that he has gone through but two-thirds of the shock levels at the time the subject's first protests are heard. Thus he understands that the conflict will have a persistent aspect to it, and may well become more intense as increasingly more powerful shocks are required. The rapidity with which the conflict descends on the subject, and his realization that it is predictably recurrent may well be sources of tension to him.

13. At a more general level, the conflict stems from the opposition of two deeply ingrained behavior dispositions: first, the disposition not to harm other people, and second, the tendency to obey those whom we perceive to be legitimate authorities.

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<sup>6</sup> A series of recently completed experiments employing the obedience paradigm is reported in Milgram (1964).