Thwarting the Need to Belong: Understanding the Interpersonal and Inner Effects of Social Exclusion

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Abstract

The need to belong is a powerful motivational basis for interpersonal behavior, and it is thwarted by social exclusion and rejection. Laboratory work has uncovered a destructive set of consequences of being socially excluded, such as increased aggressiveness and reduced helpfulness toward new targets. Rejected persons do, however, exhibit a cautious interest in finding new friends. Theory and intuition associate social exclusion with emotional distress, but laboratory research finds instead that the first response is a reduced sensitivity to pain and an emotional insensitivity that hampers empathy and may contribute to a variety of interpersonal behaviors. Self-regulation and intelligent thought are also impaired as a direct result of being rejected.

Long ago in evolution, many animals began to use social life as a biological strategy: they began interacting with each other in order to get what they needed for survival and reproduction. This biological strategy became increasingly effective as nature selected in favor of animals who were motivated to be with each other. In that context, social exclusion – such as being rejected by others – represented a powerful and disturbing threat. Animals who depend on each other for their most basic needs are at risk when they cannot interact and work together, and their drive to be together is also thwarted when they are excluded. Like other social animals, humans have a powerful need to belong and find their prospects for survival and reproduction diminished if they are alone in the world. Social rejection therefore strikes a powerful blow at the psyche, undermining the functional purpose of many of its activities, and this may be why (as we shall describe) many normal response patterns become disrupted. Even in the modern world, people who lack social ties show higher rates of mental and physical illness, among other problems (for review, see Baumeister & Leary, 1995).

In fact, the problem of social exclusion may have an added dimension for human beings. Humans are not just social animals but also cultural animals. Culture is an advanced way of being social, and it relies heavily on information, communication, division of labor, exchange, and other features, all of which depend on the interactive social group. As argued by Baumeister (2005), many of the distinctively human mental and physical attributes can best be understood as selected by nature to facilitate culture. For example, the physical and mental requirements for speaking and hearing are tailored to facilitate language use, but language exists only as part of a group culture, and so those attributes evolved to facilitate social connection. Hence, it seems fair to say that being socially excluded prevents the human psyche from doing what it was designed to do.

In this article, we survey research findings about social exclusion. Our emphasis will be on laboratory studies by social psychologists. We begin with the patterns of overt interpersonal behavior and then turn to the intrapsychic underpinnings that may help explain the interpersonal.

Methods for Studying Exclusion

Researchers have devised multiple procedures for studying social exclusion. It is common for investigators to use several different methods in the same multi-study investigation, in order to provide converging evidence. Such convergence strengthens conclusions. It does, however, possibly gloss over potential differences in the psychological impact of the various methods, although some recent work has begun to explore how some methods could yield different effects (Molden, Lucas, & Gardner, 2007). Such different reactions to different procedures might help explain the occasional discrepancies between findings from different investigations. In this brief report, we shall focus on convergences, but the exploration of differential impacts may be a promising area for future research.

One approach is to simulate a rejection experience by having participants believe that people they have just met rejected them. In this procedure, a group get-acquainted conversation is followed by having participants list the two group members they would most like to work with, ostensibly in preparation for pairing off for the next task. By random assignment, some participants are told that no one chose to work with them (see, for example, Nezlek, Kowalski, Leary, Blevins, & Holgate, 1997; Twenge, Baumeister, Tice, & Stucke, 2001).

A variation on this has two participants exchange information about themselves, ostensibly in preparation for an interactive task. Participants are then told that the interactive task has to be canceled, either because the partner suddenly remembered another appointment and had to leave, or because the partner reacted negatively to the participant's disclosures and chose not to interact further. In this procedure, both conditions end with the participant alone and the interaction canceled, but in one case

it is a personal rejection, whereas in the other it is an impersonal and ostensibly random one (DeWall, Baumeister, & Vohs, 2006; also Bushman, Bonacci, Van Dijk, & Baumeister, 2003).

Ostracism represents an important form of social exclusion (Williams, 2001). In daily life, it takes the form of refusing to acknowledge or interact with others, in a kind of silent treatment. Laboratory procedures include refusal to talk or interact with someone (Ciarocco, Sommer, & Baumeister, 2001), but most researchers have employed a ball-tossing procedure. In the original study by Williams and Sommer (1997), two confederates were commanded not to speak and pretended to circumvent this by tossing a ball back and forth. Initially the participant was included in their game, but before long the confederates ignored the participant and simply tossed the ball between themselves. More recently, a computerized version of this procedure (dubbed 'Cyberball') has become a popular way of manipulating ostracism (e.g., Williams, Cheung, & Choi, 2000). One distinctive feature of the ball–tossing and Cyberball procedures is that they effectively subject the participant to a series of small rejections, in contrast to other procedures that manipulate one larger one. The series of rejections may produce a variety of particularly interesting effects, by allowing emotion to build slowly over repeated trials, by invoking repeatedly violated expectations, and possibly even by impacting the person's sense of control over the situation.

The Cyberball manipulation has proven popular with researchers in part because it can be used in a session with only one actual participant, which adapts well to the demands of many research settings. The same advantage can be found with some other manipulations. One of them relies on having participants recall a previous experience of rejection from their actual lives (DeWall & Baumeister 2006; Pickett, Gardner, & Knowles, 2004). Usually, the reliving of the rejection is bolstered by having participants write about the experience. Having participants imagine a rejection experience (Leary, Springer, Negel, Ansell, & Evans, 1998) has the same advantage, as does the procedure of exposing participants to subtle or even subliminal primes of the idea of rejection (Sommer & Baumeister, 2002).

There are reasons to suspect that the imagined or recalled rejection manipulations may differ from others. Imaginary or hypothetical responses often differ in important ways from actual ones (e.g., Twenge, Koole, DeWall, Marquez, & Baumeister, 2006), and recalled experiences may be meaningfully understood and digested in ways that freshly occurring ones are not. One solitary procedure that avoids these pitfalls relies on bogus predictions about the future. In this procedure (e.g., Twenge et al., 2001), participants first take a personality test. While receiving feedback about their scores on the test, they are told that the feedback includes projections about their future social lives. By random assignment, some are told that people with their profile typically end up alone in life. Their current

friends and lovers are likely to drift away, and new relationships will gradually become less frequent and more ephemeral.

These procedures are all ways of exposing participants to a contrived experience of social exclusion under controlled laboratory conditions. They are a valuable complement to studies that explore social isolation and loneliness in actual social life. By necessity, they lack the impact of actual rejections, such as losing a loved one or being excluded from a desired group, but they offer the advantages of experimental design (e.g., permitting causal inference). In particular, correlational studies may find antisocial or pathological behavior among socially rejected persons, but it may be difficult to know whether the rejection was the cause or the consequence of those behaviors. Experimental designs and laboratory studies, although not without their own drawbacks, are the optimal method for establishing such causal relationships.

Interpersonal Behaviors

How do socially excluded persons behave toward others? Some negative behaviors toward the people who rejected them would be understandable, but it is far harder to predict how rejected persons will treat new others, who might represent either an opportunity (for forming new social connections) or a threat (of being rejected again).

Seemingly, the most adaptive response to rejection would be to become nice, friendly, agreeable, well behaved, and generally pro-social. After all, if one group has rejected you, then you need to make new friends in order to replace the lost connection. One of the surprising findings of the rejection work was how hard it was to find any such positive, pro-social behaviors in the wake of rejection.

Antisocial behavior emerged in some of the earliest studies of rejection. Twenge et al. (2001) found that social exclusion led to an increase in aggression toward new interaction partners, including those who provoked or insulted the participant and even neutral and thus wholly innocent parties. New interaction partners who praised the participant did not elicit either an increase or a decrease in aggression. In summary, rejected participants appear to be ready to behave in hostile, aggressive ways toward a broad assortment of others. These data converged with studies of rejection outside the laboratory. In particular, an ethnographic analysis of school shooting incidents by Leary, Kowalski, Smith, and Phillips (2003) concluded that nearly all the youngsters who shot classmates had felt severely rejected and excluded by them.

The central role of feeling disconnected was verified by Twenge et al. (2007). They replicated the increase in aggression following social exclusion but also showed that it can be eliminated by positive social contact. Even recalling and writing about a good relationship with a family member or friend was sufficient to blunt the hostile, aggressive reaction. That is, being

rejected by one person leads to more aggression toward a second person, but not if the person is embraced by a third person. Such findings suggest that feeling accepted and included by anybody can help restore the normal inhibitions and restraints against violent behavior.

Alongside the increase in aggressive behavior, a decrease in pro-social behavior results from social exclusion. Twenge, Baumeister, DeWall, Ciarocco, and Bartels (2007) found that exclusion (manipulated by the group rejection or the personality feedback 'future alone' procedure) caused decrements in a broad assortment of pro-social behaviors, including financial donations to a Student Emergency Fund, cooperation on the Prisoner's Dilemma Game, willingness to do favors requested by the experimenter, and even just helping someone pick up pencils that had been spilled on the floor.

Increasing aggression and reducing cooperative helpfulness hardly seem like recipes for making new friends. One interpretation is that rejected people simply turn into misanthropes who shun social connection. This would be surprising, however, particularly in light of the powerful need to belong and the adaptive benefits of belongingness. As a general pattern, when motivations are thwarted or blocked, the individual increases efforts to satisfy it (at least at first). Is the need to belong really different?

There have been some signs that socially excluded people seek to cultivate new possible friends. Williams et al. (2000) found that ostracized people conformed more to the opinions of others, and the researchers interpreted this as a desire to gain acceptance (although passivity would be an alternative explanation for their conformity). Gardner, Pickett, and Brewer (2000) showed that when a person's need to belong is thwarted through a simulated rejection manipulation in a chat room, people attend more to social connection information when reading about others, although this included both other people's connection and exclusion experiences (see also Pickett et al., 2004). In a similar vein, Gardner, Pickett, Jefferis, and Knowles (2005) found that loneliness and social memory are positively related: lonely people remembered more personal information from another's diary than did non-lonely people. These findings suggest that rejected people are keenly interested in information about social connection and exclusion, and this heightened interest can be interpreted as reflecting an increased desire to form new relationships, although that heightened interest may also be influenced by heightened sensitivity and accessibility stemming from the recent exclusion and could even denote some desire to avoid future rejections.

Further and clearer evidence that exclusion motivates a quest (albeit a cautious and skeptical one) for new social bonds was provided by Maner, DeWall, Baumeister, and Schaller (2007). They found that excluded people were more willing than others to want to join a campus-wide service designed to help people meet each other (and more willing to spend money for that service). Excluded persons also rated neutral faces

as friendlier and more welcoming than non-excluded people did. They were more prone than others to choose to do a task that involved working with a partner rather than alone. Last, excluded persons assigned bigger cash rewards to future interaction partners (although not to others), as long as the rewards did not come directly from their own money and the future interaction partners were clearly differentiated from the people who had rejected them.

Taken together, these findings suggest that excluded people approach others with mixed feelings. They seem highly (and understandably) sensitive to the possibility of further rejection and wish to avoid it, so much so that they may turn aggressive quite easily. They are reluctant to make the first move or make personal sacrifices for another. However, they are interested in meeting others, especially if the others make the first move or seem welcoming. They, thus, seem to exhibit the standard motivational pattern of wanting to find a new way to satisfy the thwarted need to belong, but also want to avoid being rejected again or exploited in some other way. This is consistent with a general pattern: Many people loathe being played for a sucker and exhibit considerable caution about letting it happen again after a first negative experience (Vohs, Baumeister, & Chin, 2007).

Exclusion and Emotion

Emotions are often tied to strong motivations and operate as evaluative signals about the relevance of events to these motivations (e.g., Baumeister, Vohs, DeWall, & Zhang, 2007). Hence, it seemed straightforward to predict, on both theoretical and intuitive grounds, that the dominant reaction to being socially excluded would be an immediate wave of emotional distress. We began our study of social exclusion with the working hypothesis that emotion would mediate between rejection and whatever behavioral effects would follow. Yet, the findings have not been kind to that simple theory and have in fact pointed toward far more complex patterns (e.g., Twenge, Catanese, & Baumeister, 2003).

There was ample reason to suppose that social exclusion would cause emotional distress. Leary et al. (1998; also Leary & Springer, 2000) showed that people associate social rejection with the familiar experience of having one's feelings hurt and that these feelings are defined by negative mood as well as the emotions of hostility and anxiety. Baumeister and Tice (1990) surveyed the literature on anxiety and concluded that being rejected or excluded was the most common and best-established cause of anxiety. Van Beest and Williams (2006) had participants play a variant of Cyberball (Williams et al., 2000) such that each throw cost the partici- pant money. In this instance, it would be beneficial for participants to be excluded because they would keep more of their money. The data, however, suggested that even though participants were being rewarded for being excluded, there was a significant decrease in mood among excluded

participants, as compared to those who were included. Williams's (2001) interviews and surveys found that ostracized people reported considerable distress in connection with being ostracized, and in fact he noted that he himself had such unpleasant emotional reactions that he could scarcely bring himself to conduct the interviews or even observe his own laboratory studies of exclusion.

Despite those promising signs, emotion often failed to show up in the laboratory studies of rejection. In multiple studies using various manipulations of social exclusion and many different measures of emotion, excluded people failed to differ significantly from accepted participants (e.g., Gardner et al., 2000; Twenge et al., 2001; Twenge, Catanese, & Baumeister, 2002, 2003; Twenge & Campbell, 2003; Zadro, Williams, & Richardson, 2004). Even when emotional differences were found, they typically were brought about by positive emotions among the accepted participants rather than negative ones reported by the excluded participants (who typically rated themselves as feeling neutral or nothing). Moreover, and crucially for the theory, even when rejection experiences did produce significant main effects on mood and emotion, the emotions failed to mediate between the rejection and the behavioral effects (e.g., Buckley, Winkel, & Leary, 2004; Williams et al., 2000). Overall, the large and consistent changes in behavior presented a sharp contrast with the small and inconsistent effects on emotion. Clearly, the theory that rejection causes emotion, which in turn causes behavior, needed a major overhaul.

Instead of acute upset or emotion, the standard response to exclusion by laboratory participants seemed to be one of numbness. After more than a dozen studies had yielded this pattern, some of us began to wonder whether emotional numbness might indeed be an important but unanticipated effect of rejection. Around this time, a literature review by MacDonald and Leary (2005) concluded that in many social animals, being excluded from the group or family caused a numbness (analgesia) to physical pain. Could there be a link between excluded animals' lack of pain sensitivity and human research participants' reports of emotional numbness after rejection?

A series of studies by DeWall and Baumeister (2006) found, first, that the laboratory manipulations of social exclusion made human participants lose their sensitivity to pain: both pain thresholds and pain tolerance went up dramatically. Crucially, the insensitivity to pain was linked to the emotional insensitivity. DeWall and Baumeister went on to show that the reduced sensitivity to pain was correlated with breakdowns in other patterns of emotional response, such as affective forecasting (in this case, predicting how one would react to a win or loss in next month's big football game) and empathic reactions toward others' suffering.

The link between physical and emotional numbness sheds useful light on the fundamentally social nature of the human psyche. Panksepp and

his colleagues (Herman & Panksepp, 1978; Panksepp, Herman, Conner, Bishop, & Scott, 1978; Panksepp, Vilberg, Bean, Coy, & Kastin, 1978) proposed that when social animals began to evolve, they needed inner mechanisms to help them react to social events, and that instead of creating entirely new neural or hormonal pathways, evolution piggybacked the social emotions onto the preexisting system for responding to physical harm. Hence, when people describe rejection experiences in physical terms (e.g., 'hurt' feelings; Leary et al., 1998), they are not entirely just using an analogy or metaphor. Consistent with Panksepp's position, Eisenberger, Lieberman, and Williams (2003) adapted the Cyberball procedure with brain scanning to show that the brain regions associated with physical pain also respond to social rejection.

The first reaction to social exclusion may therefore also be a kind of numbness. A physical injury causes the release of opioids that enable the animal to continue functioning without being overcome by pain. This was probably often vital for survival, enabling an injured animal to escape from a crisis situation or battle. Apparently, the social equivalent of injury, namely being rejected or excluded, produces a similar reaction.

What happens later? Most likely, the numbness wears off, and the person or animal will start to hurt. The delayed reaction does, however, afford some opportunity for a coping process to begin. Twenge et al. (2006) found an unexpected pattern that suggests how this coping process works. They started out still looking for emotional distress and, having failed repeatedly to find any signs of conscious emotion, began to look for nonconscious responses. To their initial surprise, they found that excluded people exhibited not distress but, instead, enhanced positive emotionality. For example, exclusion caused participants to complete more ambiguous word stems with positive emotion words and to group words together based on positive emotional valence, as compared to accepted or neutral participants. Parallel measures for negative emotion words yielded nothing. These effects were replicated with multiple procedures, thus lending confidence that they were no fluke or artifact. This so-called tuning toward emotional positivity may reflect a more general aspect of nonconscious coping: DeWall and Baumeister (forthcoming) found similar patterns of implicit positivity in reactions to thinking about one's death.

Although it took us some time to come around to the right solution, we are perhaps not alone in having expected the truth to be different. The idea that rejection should cause an immediate wave of distress is plausible and indeed widely accepted. Twenge et al. (2006) asked some participants to predict how they would react to a laboratory manipulation of exclusion, whereas others actually underwent the same manipulation. Intuitive predictions were wrong: people predicted that they would have strong conscious distress, but they predicted no effect on the implicit response measures. In contrast, participants who actually experienced the

rejection had no conscious emotional reaction but exhibited a strong change (toward positivity) on the implicit measures.

Thus, we seem at last to be converging on a more complete understanding of the emotional impact of rejection. Social exclusion causes an immediate reaction of numbness, including a loss of sensitivity to physical pain and a lack of emotion. The nonconscious processing systems of rejected people begin a search for happy thoughts, possibly to help mute the distress that will arise once the numbness wears off. They do not realize that they have gone numb, and so when they use their emotional systems to deal with others – such as in empathy, which is based on internally simulating another person's experience and observing one's incipient emotional response – they feel nothing and, therefore, fail to have much sympathy or empathy. In a sense, they shrug off the other's problems, as if to say 'if that happened to me, I would not be bothered, so I don't need to feel sorry for that person.'

Cognition and Self-Regulation

The lack of emotional response to social rejection prompted us to investigate other possible inner processes. Intelligent thought was one prominent candidate. Intelligence is an important feature of the human psyche, indeed, so much so that the human species has named itself (*Homo sapiens*) after its putative wisdom. Intelligence is no doubt an important adaptation to facilitate the basic biological tasks of survival and reproduction. In a sense, people survive by their social relationships and by their wits. If the social strategy is blocked, which social exclusion means, then the rejected person would presumably have to rely more on intelligence, and, hence, one might hope that intellectual functioning would be improved among excluded persons.

The data did not support the view that sharper thinking compensates for the loss of social belongingness, however. Au contraire, a series of studies found that social exclusion caused a sharp drop in intelligent thought (Baumeister, Twenge, & Nuss, 2002), as measured by various IQ and reasoning tests. Apparently, that sort of rejection makes you less likely to respond and function in intelligent ways. The main exceptions were automatic information-processing tasks, such as simple learning and memory tasks; these were unaffected. Exclusion mainly impaired logical reasoning, extrapolation, and other mental operations that required moving from one set of information to a different conclusion.

The fact that exclusion affected more controlled processing and not automatic tasks raised the possibility that exclusion affects the self's executive function. Self-regulation is a large and important part of executive function and a powerful, basic process that facilitates human social life (e.g., Baumeister, 2005). Many of the effects already described, such as increased aggressiveness, as well as impulsive selfishness and self-defeating

shortsightedness (see Twenge et al., 2002), could be explained as failures of self-control.

The idea that social exclusion impairs self-regulation was confirmed by Baumeister, DeWall, Ciarocco, and Twenge (2005). Exclusion made participants lose self-control on a variety of measures, including impulsive eating of cookies, reduced persistence on a frustrating task, less success at making oneself do something healthful but unpleasant, and impaired performance on an attention control (dichotic listening) task.

Are rejected people unable or merely unwilling to self-regulate? Further studies by Baumeister et al. (2005) suggested the latter. These studies were able to eliminate the detrimental effects of rejection by making people self-aware (which stimulates self-regulation) and by offering people a cash incentive to perform well. Apparently, rejected people retain the capacity to control themselves, but they do not want to bother unless they see direct benefit for themselves. The decrements in intelligent thought likewise are probably a reluctance to expend mental resources on intellectual tasks for which no immediate, palpable benefit to self is seen, rather than a true reduction in intellectual capacity.

Explaining the Interpersonal

Before concluding, we want to return from the intrapsychic to the interpersonal. In our view, inner processes serve interpersonal functions, and so the inner processes we described should help to shed light on the interpersonal behavior patterns we described.

The self-regulation findings suggest a basic truth about human social life (see also Baumeister, 2005). People have selfish wants and needs, but they also want to be accepted by others, and harmonious group life requires that people sometimes subdue their selfish impulses such as by waiting one's turn, respecting the property and rights of others, and following rules. The capacity for self-control probably developed in part to enable people to stifle their selfish impulses so as to win acceptance by behaving in socially desirable ways. Self-control is not fun and indeed requires effort and sacrifice. Human social life thus has a fundamental bargain, by which people make these efforts and sacrifices in order to control and subdue their impulses then reap the considerable benefits of belongingness in return. This bargain may, however, be fragile and can break down on either side. People who fail to control themselves adequately are prone to be excluded by others, whether this takes the form of divorce, employment termination, or imprisonment for crime (see Gottfredson & Hirschi, 1990, for a classic statement of the link between low self-control and criminality). Conversely, the data reviewed here show that rejection causes people to lose their willingness to make the efforts and sacrifices involved in self-control. It is as if they ask, 'If people aren't going to include me, why should I bother trying to be a good person?'

The impairments of self-regulation may well contribute to the increased aggression and the reduced helping that stem from social exclusion. People have aggressive impulses and normally restrain them, and, hence, when self-regulation is impaired, aggression increases (DeWall, Baumeister, Stillman, & Gailliot, 2007; Stucke & Baumeister, 2006). In the same way, helping and other prosocial behaviors are far more extensive in humans than in other species and may require an overriding of natural selfishness, and evidence suggests that when self-regulation is impaired, helping is diminished (Gailliot et al., 2007).

Emotional numbness also contributes to the behavioral consequences of rejection. Empathy is an important contributor to helping and other pro-social behavior (Eisenberg & Miller, 1987; Coke, Batson, & McDavis, 1978). As we have seen, empathy is reduced among rejected persons, apparently in connection with the loss of physical and emotional sensitivity. Empathy depends on imagining what another person is experiencing and thereby generating the same emotional reaction in oneself that the other is having. Presumably, when a recently rejected person tries to imagine what someone else is feeling, he or she conducts such an imaginary simulation – but then finds that not much emotional response occurs. The rejected person concludes, wrongly, that the other person's problems are not very serious. Without the emotional reaction, there is much less impetus to help the other person.

The role of empathy was demonstrated by Twenge et al. (2007). In their final study, they showed that rejection by one person led to reduced empathy toward a second, and this reduction in empathy statistically predicted helping toward a third party. Using three different interaction targets provided methodologically strong evidence that the inner numbness and its attendant impairment of empathy mediated between the rejection experience and the reduction in pro-social behavior.

Thus, ultimately and somewhat ironically, we did find that emotion plays a role in causing the behavior effects of social exclusion. We had begun with the theory that rejection would cause emotional distress and that distress would directly cause emotion. When that failed to happen, we began to reconsider the role of emotion in human behavior generally and to realize it is far more indirect than we had thought (see Baumeister et al., 2007). Instead, it appears that people use their emotions to understand other people. When rejection causes the emotion system to cease functioning properly, people lose one of their principal means of understanding others and hence change toward less optimal interactions with them.

Concluding Remarks

As social and cultural animals, humans have a strong and deeply rooted need to belong. They are motivated to form and maintain social relationships

with other people. Research on social exclusion confirms the power of that drive. It has shown that being rejected or excluded causes strong behavioral reactions, including increased aggression, reduced pro-social behavior, and increased self-defeating behavior. Ironically, none of those seems like an adaptive response that holds much promise of reestablishing new social bonds. Yet, rejected people do have heightened interest in forming new relationships. They are simply distrustful of others and often would rather avoid any chance of being rejected again rather than take the chance on making further overtures that could potentially make a connection. Rather than take the first step, they tend to wait until they see signs of promise, such as when a new interaction partner appears welcoming and friendly. Until that happens, they tend to treat others in a more wary and sometimes aggressive manner.

Illuminating the inner responses to rejection took some time, in part because we had been captivated by the intuitively appealing theory that emotional distress would prove to be the main direct effect of rejection and would mediate behavior. Instead, it appears that the emotion system tends to shut down briefly in response to rejection, causing a kind of numbness that in turn hampers empathy and other efforts to relate to others. Meanwhile, self-regulation and intelligent thought appear to suffer among rejected persons. One ray of hope takes the form of a nonconscious coping process that seeks out happy thoughts during the initial numb phase.

Sociologists have observed that excluded classes of persons in many societies exhibit various undesirable patterns of behavior, including aggression, poor intellectual or academic performance, lack of pro-social behavior, self-destructive indulgences, and poor self-control. Our research suggests that these are not necessarily inner traits of society's downtrodden, so much as normal reactions that all sorts of people exhibit when they find themselves to be excluded by others.

Acknowledgment

Short Biographies

Roy F. Baumeister did his graduate study at Princeton and Duke, working under the illustrious Edward E. Jones, who eventually concluded that Baumeister's unorthodox ideas would preclude any meaningful success in social psychology. A lengthy and mostly futile job search was redeemed by chance only because Case Western Reserve University selected its interviewees on the basis of publication record instead of recommendation letters. During the 23 years, Baumeister spent at that obscure outpost in

the field, he coedited *Dialogue*, the newsletter of the Society for Personality and Social Psychology, for which in 2007, he (along with Dianne Tice) received the society's Distinguished Service Award. Although mainly recognized for his service, Baumeister also dabbles in research and has churned out an assortment of books and papers. In 2003, he moved to Florida State University to pursue his long-standing dream of building up a friendly, productive social psychology graduate program where ambitious young people and even some of their unorthodox ideas may flourish.

Lauren Brewer is a second-year graduate student working under the supervision of Drs. Roy Baumeister and Dianne Tice. Her research interests include self-control and rejection. She graduated with honors from Florida State University in 2006 with a bachelors of science in Psychology. In her spare time, Lauren enjoys traveling, modern dancing, and playing trivia.

Dianne M. Tice is Professor of Psychology at Florida State University. She received her PhD in Social Psychology from Princeton in 1987, and she has also taught and done research at Case Western Reserve University, the University of Virginia, and the Max-Planck Institute for Psychological Research in Munich, Germany. Her research interests include self-regulation, self-presentation, and emotion.

Jean M. Twenge, is Associate Professor of psychology at San Diego State University. She received her PhD at the University of Michigan, in Personality. She is the author of the popular book *Generation Me*, which covers how American personality traits have changed over the past half century. She has also published more than 50 journal articles and book chapters.

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