CHAPTER THIRTEEN

Self-Regulation in the Service of Conflict Resolution

Walter Mischel
Aaron L. DeSmet
Ethan Kross

Some of the most frustrating conflicts are those that people fight within their own heads, as they struggle with the dilemmas and temptations they encounter and create, as has been chronicled ever since Adam was tempted by Eve and Paradise was lost forever. In everyday life, we experience these internal wars when, after resolving to skip the dessert, we are faced with the pastry tray, or when the tobacco addict, choking with emphysema, battles with himself not to light the next cigarette. Such conflicts are omnipresent as people try to pursue a difficult achievement goal, or follow through on a health regimen (adhering to diets, exercise schedules, medications), or maintain a close relationship—efforts that require more than habit and routine to stay on course as conflict becomes inevitable and the difficulty and frustration of the effort escalates.

In this chapter, we consider some of the main findings from psychology that address these internal battles. We do so on the assumption that understanding what makes intrapsychic conflict easier to negotiate constructively is also relevant to the diverse types of conflict that characterize the human condition at every level from the interpersonal to the international. Our primary goal is to capture what psychological research and theory tell us about willpower and to examine the potential implications for conflict resolution.
UNDERSTANDING "WILLPOWER"

The facet of willpower that is of particular concern here is the ability to inhibit impulsive, automatic, "hot" emotional responses that conflict with and threaten to undo the more valued but distant future goals one is trying to pursue (trying to bypass the pastry, or continue studying for an exam rather than turn on the TV, or forgo alcohol, or save for retirement rather than buy the sports car, or settle a long-standing border dispute with one's neighbor).

A Prototypic Conflict Within the Self: The Marshmallow Dilemma

The "delay of gratification" paradigm (Mischel, Shoda, and Rodriguez, 1989) is more widely known as the "marshmallow test" in media versions and best-selling advice volumes. Popularization notwithstanding (Goleman, 1995), in psychological research this method has been a prototype for the study of willpower in pursuit of difficult goals and a cornerstone for the concept of emotional intelligence (EQ). It has been researched extensively, both in experiments and in longitudinal studies that follow the same individuals for many years. (For reviews, see Metcalfe and Mischel, 1999; Mischel and Ayduk, 2004; and Mischel, Shoda, and Rodriguez, 1989).

In this method, a young child is presented with some consumable that she desires, for example a food treat. A dilemma is then posed: wait until the experimenter returns and get two of the desired treats, or ring a bell and the experimenter returns immediately but the child gets only one treat. The child clearly prefers the larger outcome and commits herself to wait for it. Soon, though, the delay becomes very difficult as waiting for the chosen goal drags on in the face of conflict, frustration, and temptation to ring the bell and take the immediately available treat. Though simple in its structure, this method has been shown to tap the type of skills and self-regulatory strategies that are fundamental for impulse control and for sustaining willpower in the face of temptation and frustration.

A choice conflict between either waiting for two marshmallows or settling for one now may seem artificial and far from the choices adults confront in their worlds. But for the young child this type of problem, when carefully structured in age-appropriate ways, creates a genuine conflict as involving to her as many dilemmas of life are to adults. It provides a route to study the processes underlying willpower systematically. Early studies of the delay situation revealed large individual differences in children's willingness and ability to delay. Years later, the time spent waiting for two marshmallows later versus one now proved to be remarkably indicative of important outcomes in later life (Ayduk and others,
296 THE HANDBOOK OF CONFLICT RESOLUTION: THEORY AND PRACTICE

2000; Mischel, Shoda, and Rodriguez, 1989). As examples, the number of seconds a preschooer is willing to wait for the bigger treats, rather than settling for the lesser one available immediately, significantly predicts diverse adaptive cognitive and social outcomes decades later, notably SAT scores (Mischel, 1996) and cognitive control ability (Eissti and others, forthcoming).

Given that behavior in this situation is not of trivial interest, it becomes important to understand what is happening psychologically that makes some children ring quickly and others wait for what seems like forever. This problem has driven an extensive research program (Mischel, 1996; Mischel and Ayduk, 2004), addressing the question if humans initially are driven by impulses, pressing for immediate release, ruled by a pleasure principle, and largely indifferent to reason—as has long been assumed—how do they become able to control their actions and feelings, overcoming the power of stimuli to elicit automatic reactions and exerting the self-control strategies or willpower essential for executing their difficult-to-achieve intentions?

It is tempting to interpret the marshmallow-test results to support the view that how people manage to persist and exert self-control reflects basic character traits such as ego control or conscientiousness, traits that may already be visible quite early in life. Such constructs can be useful in characterizing broad individual differences in the predisposition to self-control and ability to negotiate difficult conflicts without losing the long-term goal that one seeks, but at best they offer incomplete explanations. They overlook, for example, the finding that the same preschooler who was unable to wait even a minute under some conditions was able to wait twenty minutes when the situation was represented or framed in other terms or when the conditions changed in even seemingly minor ways. So we need to understand what people can do when they try to persist in goal pursuit, to deal effectively with conflict without succumbing impulsively to the immediate temptations and impulses to quit.

Essential Preliminaries for Self-Regulation

Beginning in the early years of life, ineffective self-regulation predicts many adverse outcomes: subsequent school failures, poor academic and social competence, conduct disorders, and various forms of addictive and antisocial behavior. (For review, see Mischel and Ayduk, 2004.) Conversely, individuals who can effectively self-regulate and cope with conflict in pursuing their goals can at least partially shape their lives and futures in constructive directions. It is therefore important to understand the processes that enable self-regulation and willpower in the service of constructive conflict resolution.

Over the course of the past four decades, research has gone beyond folk wisdom and speculation to demystify the concept of willpower. The findings speak to why at least some people under some circumstances are able to turn their good intentions into effective behavior as they cope with the conflicts most
important to them. Much of this research focuses on the psychological processes involved in self-regulation that make it extremely difficult—or relatively easy—for people to deal effectively with seemingly mundane but potentially life-threatening conflicts.

Effective self-regulation or its failure depends on a sequence of closely connected and interacting cognitive and emotional processes. These include (a) how the individual encodes or construes the situation in which self-regulation is attempted, (b) the expectancies and beliefs that become activated, (c) the feelings and emotions triggered and experienced, and (d) the goals and values engaged. Although these are essential preliminaries for even attempting to exert effortful control, sustaining effort depends on the self-control skills and strategic competencies that are employed in trying to pursue them.

**Encodings.** The motivation to self-regulate tends to increase to the extent that the activity or situation is encoded as personally meaningful and self-relevant. New mothers, for example, cope better with the often exhausting and conflict-provoking chores and routines of parenting an infant if they view those tasks as fulfilling important self-obligations rather than as taking time away from other modes of self-fulfillment, such as a career. Even if events and situations are perceived as highly self-relevant, however, the person does not necessarily consciously attempt to self-regulate. On the contrary, such situations often easily and automatically trigger the enduring behavior patterns that characterize an individual’s personality and function to undermine self-regulation. One example of such an automatic reaction is the anger and abusiveness readily triggered in rejection-sensitive men who are quick to perceive rejection from a romantic partner even if it has not occurred. Their maladaptive reaction pattern of uncontrolled hostility may be essentially reflexive, bypassing conscious control and preventing purposeful self-intervention effort. In such a case, the person encodes the situation as personally relevant even if it is not and maintains this representation regardless of contradictory evidence. The ironic and often tragic result is that the outcome the man most fears and expects—rejection by the romantic partner—is precipitated by his own behavior in a self-fulfilling prophecy (Downey, Freitas, Michaelis, and Khouri, 1998).

**Expectancies.** Expectancy and belief that one is able to exert control and successfully execute necessary action is also an essential prerequisite for self-regulation. It supports one’s efforts and guides whether, where, when, and how one attempts to self-regulate (Mischel, Cantor, and Feldman, 1996). To even try purposeful self-regulation requires a representation of the self as a causal agent capable of executing an intended action. Perceived self-efficacy—the belief that “I can do it”—is a foundation for successfully pursuing a difficult goal or for changing and improving one’s situation or oneself (Bandura, 1986). Its psychological
opposite, perceived helplessness, is the route to giving up, apathy, and depression (Dweck, 1986; Seligman, 1975). Even when the self-regulatory task is something aversive that has to be endured and cannot be controlled—say, a painful dental procedure or hostile interaction—the belief that one can predict or control the stress is an important ingredient for coping. Generally, most people tend to become less upset if they think they can predict and control stressful or painful events, even if the perception is illusory (Averill, 1973; Miller, 1979; Rodin, 1987; Taylor, Lichtman, and Wood, 1984; Thompson, 1981).

**Affect.** Whereas expectations of efficacy and control enhance the potential for self-control and goal pursuit, anxious feelings and self-preoccupying thoughts undermine such efforts. The thought, “I’m no good at this; I’ll never be able to do it” in the test-anxious person competes and interferes with task-relevant thoughts (for example, “Now I have to recheck my answers”). Interference from self-preoccupying thoughts tends to be greatest when the task to be done is complex and requires many competing responses, as is always the case when the problem and conflict to be solved are complex and difficult. As the motivation to do well increases (as when success on the task is especially important), anxiety and the tendency to catastrophize become particularly maladaptive, interfering with attention to the task and concentration on how to master it effectively.

**Motivation and Persistence in Goal Pursuit.** Encodings, affect, and expectancies notwithstanding, equally important for facilitating adaptive self-regulation is that the individual be motivated to self-regulate. If the person presented with a delicious-looking piece of chocolate cake does not care about losing weight, then it is unlikely that the person will refrain from taking a bite. Assuming that the individual is in fact motivated to self-regulate, their persistence in goal pursuit will be bolstered or undermined by their outcome expectancies about the likelihood that the effort, cost, and time spent on the task will or will not actually result in the desired outcome. People base outcome expectations both on information in the current situation and on expectations generalized from previous similar situations. In short, expectancy has a substantial impact on self-regulatory choices and motivation: people are likely to choose to perform an action that requires effort if they believe that they can perform the action (they have high self-efficacy expectancy) and expect it to lead to favorable consequences.

**Hot Reactions and the Emotional Brain**

The situations in which people most need and want to self-regulate and control their impulses as they struggle to resolve conflict tend to be those in which it is most difficult for them to do so. These are the situations that elicit hot emotional reactions such as intense fear and anxiety or strong appetites or craving. In such situations, the person may be subject to what is called stimulus control—namely,
situations in which the stimulus triggers a virtually uncontrollable automatic response. The central challenge for the individual is to overcome such reflexive, automatic stimulus control with reflective self-control.

Consider, for example, the dilemma of the addict who is trying to quit but is tempted with heroin, or the starving dieter faced with the ultimate chocolate cake, or the test-anxious student facing an important examination. This kind of hot situation tends to automatically trigger a hot reaction, rapidly generating the associated feelings of fear or desire and the urge to respond impulsively, bypassing self-regulatory controls just when it is most important to have them. Such hot, reflexive reactions may be part of the overall arousal state that helps initiate quick adaptive action, as in an emergency response to a fire alarm or sudden danger that mobilizes the body’s resources. However, the arousal state makes thoughtful self-regulation and planful action and reflection most difficult (Metcalfe and Mischel, 1999).

Crucially important in emotional reactions, particularly fear, is a small almond-shaped region in the brain, called the amygdala ("almond" in Latin). This brain structure reacts almost instantly to stimuli that individuals perceive as threatening (Adolphs and others, 1999; LeDoux, 1996, 2000; Phelps and others, 2001; Winston, Strange, O’Doherty, and Dolan, 2002), immediately cueing behavioral, physiological (autonomic), and endocrine responses. It mobilizes the body for action, readying it to fight or flight in response to a perceived threat. This reflexive emergency reaction is useful for adaptation: there is evolutionary survival value in reacting automatically to a snake in the grass without taking time to reflect on it or to fight an opponent who is ready to strike when flight is not possible. But these automatic reactions are only a quick fix and can become destructive if they persist (LeDoux, 1996, 2000). When activated indiscriminately, in response to stimuli that are not threatening, they can lead to negative consequences for the self.

Unlike lower animals in the evolutionary ladder, human beings have the capacity to eventually take control with high-level brain centers (the prefrontal cortex) and to start thinking and planning their way through perceived threats that the amygdala responds to automatically. In this vein, findings on the neural basis of emotion regulation indicate that the amygdala does not operate in isolation in response to perceived threats. Instead, it projects to and interacts with a number of prefrontal brain regions (among other areas) that support high-level executive functions that are believed to play a critical role in the cognitive control of emotion. (For review, see Ochsner and Gross, 2005.) For example, studies of peoples’ ability to down-regulate negative emotional responses have shown that instructing people to cognitively reappraise the meaning of threat-arousing stimuli to perceive them as less aversive (for example, imagine that the blood on a corpse is ketchup) leads to concomitant decreases in autonomic responses, amygdala activation, and self-report negative affect (Jackson, Maimstadt, Larson,
and Davidson, 2000; Levesque and others, 2003; Ochsner, Bunge, Gross, and Gabrieli, 2002; Ochsner, and others, 2004). Thus, the trick in achieving effective self-regulation is to move from the automatic, hot, emotional response that can quickly become maladaptive to a cooler, more reasoned, and reflective action that makes use of the vast cognitive resources that give humans their advantage (Mischel, and others, 1989).

FROM HOT TO COOL: ENABLING WILLPOWER

To understand the processes that enable willpower in executing one's intentions, two closely interacting systems have been proposed: a “hot” system and a “cool” one (Metcalfe and Mischel, 1999). The cool system is a "know" system: it is cognitive, complex, contemplative, slow, rational, strategic, integrated, coherent, and emotionally neutral—it is the basis of self-regulation and self-control. In this theory, it consists of a network of informational cool nodes that are elaborately interconnected to each other and generate rational, reflective, and strategic behavior. In contrast, the hot one is a "go" system: emotional, simple, reflexive, and fast. It consists of relatively few representations, or hot spots, which, when activated by trigger stimuli, elicit virtually reflexive avoidance and approach reactions. The hot system develops early in life and is dominant in the first few years. It is tuned biologically to be responsive to innate releasing stimuli, both negative and positive, that elicit automatic, aversive, fear-and-flight reactions, or appetitive and sexual approach reactions. Impulsive and reflexive, the hot system is the basis of emotionality, fears as well as passions; it undermines rational attempts at self-control.

The hot/cool model assumes that cognition and affect operate in continuous interaction with one another. (For similar opponent process models, see Epstein, 1994; Lieberman, Gaunt, Gilbert, and Trope, 2002.) Specifically, hot spots and cool nodes are directly connected to one another and thus link the two systems (Metcalfe and Jacobs, 1996, 1998; Metcalfe and Mischel, 1999). Hot spots can be evoked by activation of corresponding cool nodes; alternatively, hot representations can be cooled through intersystem connections to the corresponding cool nodes. Willpower becomes possible to the extent that the cooling strategies generated by the cognitive cool system circumvent hot system activation through such intersystem connections that link hot spots to cool nodes. Thus, consequential for self-control are the conditions under which hot spots do not have access to corresponding cool representations, because these conditions are the ones that undermine or prevent cool system regulation of hot impulses.

Analysis of the interactions between hot and cool systems allows prediction and explanation of diverse findings on the nature of willpower from decades of research. Although the processes involved in these interactions are quite complex,
the implications for conflict management are straightforward. Namely, the essential ingredient for effective self-regulation is to strategically cool the hot system and its impulsive reaction tendencies—reactions that are readily activated in conflict situations—and instead mobilize the cool system in pursuit of long-term goals.

The balance between the hot and cool systems depends on several factors, the first of which is the developmental level of the individual. The hot system develops and dominates early in life, whereas the cool system develops later (by age four) and becomes increasingly dominant over the course of development. Consequently, early in development the baby is primarily responsive to the pushes and pulls of hot stimuli in the external world as many of the hot spots do not have corresponding cool nodes that can regulate and inhibit hot system processing. These developmental differences are consistent with evidence on the differential rates of development of the relevant brain areas for these two systems. (For reviews, see Eisenberger, Smith, Sadovsky, and Spinrad, 2004; Rothbart, Ellis, and Posner, 2004.)

Empirical evidence from the delay of gratification studies supports these expectations. For example, whereas delay of gratification is virtually impossible for children younger than four years of age (Mischel, 1974), by age twelve almost 60 percent of children in some studies were able to wait the duration of the period to receive the awaited reward (25 minutes maximum; Ayduk and others, 2000, Study 2). As the cool system develops over time, however, it becomes increasingly possible for children to generate cooling strategies (such as self-distractions, inventing mental games to make the delay less aversive), to be less controlled by their temptations (Mischel and others, 1989).

In the context of conflict resolution, the most important determinant of hot-system, cool-system balance is stress. At high levels, stress deactivates the cool system and creates hot-system dominance. At lower levels of stress, complex thinking, planning, and remembering are possible. When stress levels jump from low to very high, as in life-threatening emergency conditions (escape the approaching perpetrator or die, get the food or starve), responding tends to be reflexive and automatic—hardly the time for cognitive complexity and reflection. Under conditions in which an animal’s life is threatened, quick responses driven by innately determined stimuli may be essential. At the same time, such automatic reactions undo rational efforts at constructive conflict resolution for the types of dilemmas that typically characterize everyday human conflicts.

The effects of chronic stress are evident even at a physical level. For example, exposure to prolonged stress has correlated with decreases in the volume of the hippocampus (Sapolsky, 1996), a brain structure that is basic for the functioning of the cool system. Other studies indicate that rats exposed to repeated stress demonstrate dendritic spine loss in medial prefrontal cortex (Brown, Henning, and Wellman, 2005; Radley and others, 2004; Radley, 2005)—a cellular feature of stress-related psychiatric disorders in which the prefrontal cortex
is impaired—and dendritic spine growth in the amygdala (Mitra, Jadhav, McEwen, Vyas, and Chattarji, 2005; Vyas, Bernal, and Chattarji, 2003)—a neuronal event that is thought to facilitate increased emotionality. In humans, severe and chronic stress (as in war and terror conditions) may result in dominant activation of the hot system as opposed to the cool system in ways that become relatively stable and difficult to reverse. In short, conflict and stress are intimately linked and feed each other so as to easily and automatically undermine rational problem solving and escalate irrational and self-defeating hot behavior. In this cycle, stress increases the potential for conflict, which in turn escalates the level of stress, producing a pernicious cascade of impulsive hot-system responses and consequences that further undermine any chance for rational and effective conflict resolution. Fortunately, diverse strands of research from several fields converge that speak directly to this dilemma and point to new directions—or at least metaphors—for dealing constructively with conflict.

Consider again the marshmallow test. For this situation, delay of gratification and frustration tolerance are enhanced if the person can transform the aversive waiting period into a pleasant, nonwaiting situation. There are two primary ways that this can be done. One way is by diverting attention and thoughts away from the frustrating components of delay of gratification and thinking instead about other, pleasant things. Such distractions can be achieved by engaging in activities, overtly or mentally, during the delay period that help to suppress or decrease the aversiveness of waiting for the desired outcome, while retaining the goal and continuing to persist for it. Distraction tactics such as these often are seen in everyday conflict situations in the form of “time-outs,” which allow people to take a break from building disputes to focus attention elsewhere in order to calm down, regain composure, and have a fresh look.

Second, the aversiveness of the delay period also can be neutralized by changing the way people mentally represent the outcomes they are waiting or working for. For example, in a number of studies, Mischel and colleagues have shown that cueing children to think about the rewards in terms of their concrete, motivating, “hot” features (that is, you can think about how gooey and yummy marshmallows taste) undermines children’s ability to delay gratification. In contrast, a focus on the more abstract, informational, “cool” features of desired treats (that is, you can think about how round and puffy marshmallows are, like cotton balls or clouds) has the opposite effect, functioning to enhance delay ability. (For review, see Mischel and others, 1989.) In short, voluntary delay of reward can be aided by activities that serve as distracters from the reward and thus from the aversiveness of wanting it but not having it, or by mentally re-representing the reward more abstractly and less concretely. Through such distraction and mental re-representation, it is possible to convert the frustrating delay-of-reward situation into a psychologically less aversive condition. Thus, rather than trying to maintain an aversive activity through an act of will or focused attention, effective self-control
is helped by transforming the difficult into the easy, the aversive into the pleasant, and the boring into the interesting, while still maintaining the task-required activity on which the ultimate reward depends.

Doing this effectively when the task is complex may require extensive rehearsal and planning for implementing the necessary action when it is needed (Gollwitzer, 1996; Mischel and Patterson, 1976). In effective delay of gratification, the child tunes out the hot properties of the reward stimulus while strategically cooling through self-distraction to sustain waiting behavior. Similarly, distracting and relaxation-induced activity, such as listening to music, reduces anxiety in the face of uncontrollable shocks and helps people cope with chronic pain (such as from rheumatoid arthritis, and even with severe life crises). Cooling strategies generally can help one transform potentially stressful situations to make them less aversive. For example, if surgical patients are encouraged to reconstrue their hospital stay as a vacation from the stresses of daily life, they show better postoperative adjustment, just as chronically ill patients who reinterpret their conditions positively also show better adjustment.

When considering how people can be helped to self-regulate adaptively, there is an important caveat: in the real world, situations that require individuals to exert self-control often involve both strategic cooling processes that enable people to remain calm and reflective in the face of temptation, as well as strategic heating processes to maintain commitment to pursuing the goals rather than quitting. For example, Peake, Hebl, and Mischel (2002) investigated second-by-second attention deployment during efforts at sustained delay of gratification. Self-regulation depended not just on cooling strategies, but on flexible attention deployment as well—delay in working situations was facilitated most when attention was intermittently shifted to the rewards, as if the children tried to enhance their motivation to remain by reminding themselves about the rewards, but then quickly shifted away to prevent excessive arousal (Peake and others, 2002). Such flexibility in attention deployment is consistent with the idea that it is the balanced interactions between the hot and cool systems that sustain delay of gratification, as they exert their motivating and cooling effects in tandem. (See also Mischel and others, 1989.)

INTERPERSONAL CONFLICT

The findings just described have direct implications for analyzing interpersonal conflicts.

Self-Regulatory Failure in Interpersonal Conflict
Interpersonal conflict often involves complex, mixed-motive situations, in which the relationship between one's own set of goals and another's are simultaneously
positively interdependent and negatively interdependent. (See Chapter One of this book) Sayings such as “You always hurt the ones you love” indicate the common wisdom that the interdependence coming from interpersonal closeness creates the very situation in which emotions are strong and the tendency to react impulsively in hurtful, damaging ways is greatest. Although people may attempt to control the hot, emotional responses that intensify conflict and damage relationships, they often find that their good intentions are not enough to refrain from blowing up, making personal attacks, or otherwise doing what they later regret.

Regulating expression of negative feelings is difficult in the heat of conflict. The conflict situation itself creates a general level of stress that readily shifts the balance from cool-system to hot-system dominance. Under high stress, specific things are often said and done during conflict that push specific psychological buttons, which in turn trigger hot, emotional reactions. Failure to exert self-control over such reactions can instigate similarly hot responses from the other party, thus intensifying the conflict, further undermining efforts at self-control, and making cool, collaborative responses even more difficult. High stress also tends to decrease one’s ability to solve complex problems. So people who argue when they are stressed and fatigued often find that they lack the self-control they might otherwise have. Their problem-solving ability is also impaired, so stress doubly undermines any attempt to resolve the conflict constructively.

Given the negative implications associated with stress for successfully resolving conflicts, it is not surprising that managing stress plays an important role in conflict resolution. Managing and reducing stress improves not only self-cooling and self-control, but also one’s ability to generate and assess possible solutions to the conflict. Because a high level of stress can shift the balance from cool-system dominance to hot, managing stress effectively can mean the difference between suppressing hot impulses and lashing out uncontrollably. In this vein, Gottman and colleagues, working with married couples experiencing serious relationship-threatening conflicts, has found that stress management strategies, including exercise, mediation, and self-soothing rituals for unwinding or decompressing at the end of the day, can help improve conflict resolution and marital satisfaction. (For review, see Gottman and Silver, 2000).

In addition to stress, there are countless other reasons why people fail to self-regulate during conflict (for review, see Baumeister and Heatherton, 1996; Baumeister, Heatherton, and Tice, 1993), among them ambivalence or lack of firm resolve (that is, motivation) to accomplish a particular goal. As mentioned earlier, one’s motivation to self-regulate increases if the situation or activity in question is considered personally relevant and meaningful. Because self-regulation and self-control require a certain amount of psychological and physiological energy, it comes as no surprise that when people are emotionally stressed, mentally drained, distracted, busy with other things, or just plain tired,
they find it all the more difficult to overcome a powerful emotional impulse (Baumeister and Heatherton, 1996).

Anxiety, rumination, and preoccupation may undermine self-regulation as well, particularly if the conflict is a complex one that requires abundant mental resources for successful resolution (Lyubomirsky and Nolen-Hoeksema, 1995). As the perceived stakes increase, however, the anxiety level and the propensity to catastrophize also tends to increase, interfering with the ability to self-control and solve a complex problem. The very nature of a conflict situation—emotional and stress-inducing—thus undermines self-control and suggests the common-sense advice to try to avoid dealing with potential conflict situations when one is busy, anxious, stressed, or physically exhausted—advice that is easy to give but difficult to execute given the “hot” conditions in which real-life conflicts generally are confronted, whether battling for the parking space or taxi on the way home or dealing with sudden world crises.

**Escalating Spirals in Conflict**

Often, one little step crosses an imaginary line, leading to more frequent and severe transgression and the collapse of the good intentions. The dieter who cheats a little for a special occasion, the ex-smoker who sneaks just one little cigarette to help calm the nerves, or the alcoholic who takes one tiny sip to feel more at ease at the annual holiday party—these are the first steps to an unhappy ending; hence such idioms as “falling off the wagon.” Such snowballing, of course, occurs not just in internal conflicts, as in dieting struggles within the self, but also in interpersonal conflicts.

Altercations that readily become violent typically begin with relatively innocuous acts, followed by an escalating spiral of reciprocal provocation. The initial aggressive act may seem at the time essentially harmless, but elicits a hostile response that seems to justify an even more aggressive countermove, and so on, eventually snowballing into violence (for example, Zillman, 1994), and the cycle of emotional arousal, impulsive automatic responding, and aggression continues to escalate. It is evident, for example, in the divorced couple who simply cannot be in the same room together without the slightest provocation triggering a series of aggressive reactions that quickly spiral out of control. Such habitual escalating reactions between parties in a protracted conflict follow some of the same rules as all kinds of habitual responses. To illustrate, consider Pavlov’s dogs, who were exposed to food that made them salivate. The food was repeatedly paired with a distinctive bell, so that when the bell rang, food was shown, and the dogs salivated. Eventually, the dogs learned to anticipate food whenever they heard a bell and would salivate merely at the sound of the bell, regardless of whether food was ever presented. In human relations, the trigger for the original angry response is the other’s behavior and its perceived harmful consequences. (See Allred, 2000.) Over time in these escalating cycles, however,
the anger and hostility may become such strong conditioned responses that the presence of the other person, physically or in thought, may be sufficient to trigger them automatically unless cooling strategic interventions are introduced.

Cooling Strategies and Techniques

Between six and eighteen months of age, infants begin to learn to regulate their emotions. Six-month-olds approached by a stranger tend to cope with their fear and anxiety by averting their eyes and "fussing." Twelve- and eighteen-month-olds, on the other hand, use other strategies, such as self-distraction and self-soothing, to deal with an anxiety-producing stranger. These more sophisticated cooling strategies allow children to effectively cope with their hot fear and anxiety reactions. Because conflict elicits similar fight-or-flight emotional responses, self-distraction, self-calming, and other cooling strategies are equally important skills for adults.

Time-Out

People who have stressful jobs are able to reduce conflict and improve their family relationships by taking brief time-outs after returning home from work. Without a time-out, going straight from a stressful workday to a family interaction often leads to argument and dispute. But spending part of an hour by themselves enables these stressed-out wage earners to calm down prior to dealing with their families, and subsequent family interactions are therefore much more pleasant.

In the middle of a conflict, calling for a time-out or even just stopping and counting to ten, can allow people the extra time they need to calm down and cool off. If people take an extended time-out, they should take care not to engage in other arousing or anxiety-producing activities and avoid "silent seething" (Baumeister, Heatherton, and Tice, 1993) in which the time-out is used to nurse the angry feelings and plot the next counterattack. Engaging in such silent seething, in which people focus specifically on the hot, concrete emotion-arousing aspects of the conflict (for example, "I can’t believe she said that . . ." or "he’s being so stubborn . . .") is likely to perpetuate hot responses by leading to ruminations that further increase negative arousal and hostility (Kross, Ayduk, and Mischel, 2005; Rusting and Nolen-Hoeksema, 1998). Instead, people can use time-outs constructively to engage in behaviors that calm them down, reducing their arousal levels so that they can later rejoin hostile negotiations and contribute to them meaningfully, in ways that lead to adaptive resolutions. The specific behaviors that facilitate this will likely vary across people and depend on a host of factors including the individual’s personality, the type of conflict involved, as well as its intensity. Regardless of the specific behavior that people choose, however, the objective of a time-out remains the same—to pause and
calm down, not to pause and reload, nor as a way of avoiding dealing with the conflict and abandoning the efforts to resolve it.

Reflection

One way to facilitate more constructive conflict resolution is to become more self-aware. Stopping to reflect, comparing one’s behavior to important goals and standards, and trying to take the other person’s perspective can be helpful. People who stop to focus attention on themselves and succeed in adaptively reflecting on their current thoughts, feeling, goals, and behaviors are more likely to see themselves accurately, to act consistently with goals and standards, and to be faithful to shared standards such as societal norms or agreed ground rules of the relationship (for example, Carver and Scheier, 1981; Wicklund, 1979). However, efforts to constructively analyze feelings can also easily become hazardous by entangling people in rumination that further increases negative affect (for example, Ayduk, Downey, and Mischel, 2002; Rusting and Nolen-Hoeksema, 1998). Given these conflicting findings, a key need is to understand how people can adaptively reflect rather than ruminate about their feelings.

According to the hot/cool model, whether a person ends up ruminating or reflecting depends critically on two mechanisms: the individual’s arousal level and the individual’s construals of their experience (Metcalfe and Mischel, 1999). As noted earlier, at high levels of arousal hot-system processing is accentuated while cool system processing is attenuated. Consequently, when a person experiences high negative arousal, as is often the case during conflict, it is assumed that efforts to rationally analyze negative feelings will be impaired. Instead of fostering abstract thinking and reasoning, such efforts are expected to lead individuals to construe negative experiences in predominantly concrete, descriptive terms (that is, focusing specifically on what one is feeling and what happened to them), which, in turn, feeds back and serves to further increase negative arousal. To illustrate, consider the following hypothetical example. Imagine that Joanne is in the midst of a frustrating negotiation with John. She finds herself becoming increasingly upset and is motivated to figure out why she is feeling so hostile in order to prevent the negotiation from blowing up. She takes a timeout and asks herself, “Why am I so angry at John?” In response, she tells herself, “because he’s arrogant and a control freak and his proposal is unfair.” Thus, although Joanne is motivated to understand her feelings, her attempts to do so do not lead to insightful understanding. Instead, they lead her to focus specifically on what it is about John and the situation that is upsetting her, causing her to become increasingly upset. In order to prevent this kind of ruminative response and enable adaptive reflection, the hot/cool model suggests that specific strategies are needed to reduce arousal while attention is directed to a more abstract and less concrete analysis of one’s feelings.
Recent studies by Kross and colleagues (2005) have begun to shed light on the psychological operations that enable such cool, reflective processing. In their research they demonstrate that two strategies play a critical role in enabling people to adaptively reflect, rather than ruminate, over negative feelings. One is the adoption of a self-distanced perspective, in which the individual becomes an observer of himself and the experience (rather than maintaining the usual self-immersed perspective). The other is a "why" focus on the specific reasons underlying one's negative feelings (rather than a "what" focus on the specific felt emotions experienced). Findings from a series of studies indicate that the combination of these strategies (that is, why-focus engaged in from a self-distanced perspective or "distanced-why" strategy) enables people to analyze negative experiences and emotions in relatively cool, cognitive terms, making sense of them without overwhelming them with their aversiveness and refueling the problem. For example, Kross and colleagues (2005) have shown that instructing people to focus on the reasons underlying their negative feelings surrounding interpersonal conflicts (why focus) from self-distanced perspectives leads them to experience less anger, assessed both implicitly (indirectly) and explicitly (through self-report), and to construe their experiences less concretely (that is, "I can't believe she said that to me . . ." or "he's so unreasonable . . ."

and more abstractly (such as, "I realize that she felt threatened by my

presence . . ."; "looking back on it now, I could have responded differently by . . .") relative to individuals who focus on the reasons underlying their emotions without adopting a self-distanced perspective.

The distanced-why strategy thus appears to offer one route for facilitating reflection and constructive problem solving. Theoretically, a number of techniques may be similarly useful so long as they function to attenuate arousal levels while leading people to construe their experiences more abstractly and less concretely. In this vein, time-outs, third-party mediators, and writing interventions may all prove useful to the extent that they fulfill these enabling conditions.

SELF-REGULATORY PLANS
AND IMPLEMENTATION STRATEGIES

Implementation strategies connect general goals ("Resolve conflict constructively") to a specific implementation intention ("If she says I'm rude, I'll ask her to cite specific examples; I won't lose my temper and start calling her names"). Creating a specific contingency (IF _____) that becomes connected to a specific planned response (THEN _____) helps ensure implementation of the plan by tying a hot trigger event to the intended response rather than the habitual response. For instance, translating the goal of "health and physical fitness"
into an intention to "exercise regularly" is not an effective plan of action because it is too broad. An effective plan of action specifies the how, when, and where rather than just the what of the action steps needed to accomplish the goal (Gollwitzer, 1996). A better plan for the person seeking a healthier lifestyle might be "I'll go to the park and jog two miles every weekday evening as soon as I get home from work." This is a better plan because it specifies the exact action (jogging two miles), when and where it happens (every weekday in the park), and the situation that triggers the action (as soon as I get home from work). A similarly detailed plan of action can help ensure that specific conflict resolution strategies are initiated at the right time and place and with the appropriate people.

**MODELING/ROLE PLAY/REHEARSAL**

People do not learn new response patterns just through direct experience. They can also learn adaptive responses to conflict from observing others. Aggressive children and adolescents, in particular, can profit immensely from training interventions that teach them nonviolent techniques for handling interpersonal conflicts. Observing skilled models deal effectively with difficult situations allows the observer to achieve greater freedom in coping with current and future problems of all sorts (Bandura, 1986).

In modeling, appropriate and effective responses are repeatedly modeled by competent individuals in a variety of problem-provoking situations (Bandura, 1969, 1986). Generally, the modeling begins with observation of effective behaviors in relatively easy situations and, when learners have mastered them, moves gradually to those that are increasingly difficult. In participant modeling, in addition to observing, learners also have guided opportunities to try the modeled behavior and receive the necessary guidance along with ample opportunity to practice the new behavior until they can respond to similar problem situations skillfully and generalization is achieved.

Live or videotaped modeling demonstrations can be an excellent way to communicate appropriate behaviors in a variety of realistic situations and contexts. Voice-over narration can direct attention to key features and explicate the underlying action plan of which the model is merely an example. On an instructional video, voice-overs can be used to represent what people are thinking to themselves and the cognitive-affective strategies they are using to help manage themselves during the conflict and can point to nonobvious behaviors such as body language. Demonstration can be used to contrast good and poor performance, and to show the positive outcomes associated with good performance and the potential negative consequences of poor performance. Demonstration can also be used to symbolically model internal processes of self-control by
showing what people are thinking and feeling. By having people talk out loud and explain what they are thinking and feeling, one can use demonstration to model internal dynamics as well as observable behavior.

CONCLUSION

Intense conflicts, whether internal within the individual or external between individuals and groups, typically generate strong, "hot" emotional arousal that easily triggers automatic, virtually reflexive reactions, such as avoidance and flight or aggression and fight. Often, these impulsive reactions are exactly the ones that lead to disadvantageous long-term consequences for all concerned. Shifting from hot, emotion-driven, impulsive reactions to cooler, more effective modes of cognitive problem solving is facilitated by a variety of cooling strategies that were illustrated, such as selective attention and reappraisal. A variety of techniques, including time-outs, reflection, exposure to effective models, planning/rehearsal, and role play can help individuals readily use such strategies when they are most needed—and, ironically, most difficult to access spontaneously—in efforts at effective conflict resolution.

References


Egidi., I., and others. “Predictive Cognitive Control from Preschool to Late Adolescence and Young Adulthood.” Psychological Science, forthcoming.


