Compassion features in the ancient philosophical musings of Aristotle and Confucius and is a central component of the Bible and Buddhist writings. Compassion provides the emotional underpinnings to one of the most sacred moral values: *care for the weak, do not harm others* (Haidt & Joseph, 2004; Horberg, Oveis, & Keltner, 2011). Along with other prosocial emotions such as gratitude, love, and forgiveness, compassion is crucial for sustaining harmonious group living because it promotes cooperation, caretaking, and social connection with others (Goetz, Keltner, & Simon-Thomas, 2010).

Although compassion is elicited by negatively valenced stimuli—occurrences and signals of harm and suffering—it is in many ways a positive emotion and a fitting topic for this handbook. Compassion is associated with feelings of warmth, tenderness, kindness, and caring, that encourage social connection (Campos et al., 2009). When participants were asked to categorize emotions by valence, compassion was consistently grouped with other positive emotions (Shaver, Schwartz, Kirson, & O’Connor, 1987). Like other positive emotions, compassion also yields benefits for the mind and body (Fredrickson, 2001). For instance, individuals who report experiencing more dispositional compassion are buffered from the physiological costs of participating in stressful tasks when there are even minimal signs of social support (Cosley, McCoy, Saslow, & Epel, 2010), and caregivers who experience more compassion report lower levels of stress (Monin, Martire, Schulz, & Clark, 2009). Cultivating compassion has become the focus of a burgeoning interest in meditation (Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008) and novel research is even assessing how focusing compassion inward, termed *self-compassion*, may be a better predictor of self-worth than traditional constructs such as self-esteem (Neff & Vonk, 2009). These findings support the claim that compassion is inherently a positive interpersonal emotion, despite its negative triggers.

We argue that compassion is a discrete emotion, distinct from other emotions such as sadness, distress, or love, but part of a family of other-focused affective responses, including empathy, sympathy, and pity. We begin this chapter by defining compassion, its antecedents and appraisals, and its behavioral consequences. We then highlight the evolutionary functions of compassion that suggest why this emotion is found universally in human cultures and can be observed in our closest primate relatives. We next consider how novel methods of measuring emotion expression are uncovering recognizable
and potentially universal signals of compassion (Hertenstein, Keltner, App, Bulleit, & Jaskolka, 2006; Simon-Thomas, Keltner, Sauter, Sinicropi-Yao, & Abramson, 2009) and outline the rapidly emerging physiological profile of this emotion (e.g., Eisenberg et al., 1989). Last, we examine the current state of research in compassion and discuss potential future lines of inquiry.

**Defining Compassion**

*Compassion* is defined as feeling sorrow or concern for the suffering of another person, coupled with the desire to alleviate that suffering (Eisenberg & Miller, 1987; Lazarus, 1991). This definition situates compassion in the realm of emotions as a feeling or affective response rather than a mere attitude toward suffering (Sprecher & Fehr, 2005). Compassion has specific antecedents, appraisals, and behavioral consequences. It is elicited by the emotional or physical suffering of another person. Laboratory studies have used narratives, pictures, and film clips about individuals with illnesses (Batson, Sager, Garst, & Kang, 1997; Stellar, Manzo, Kraus, & Keltner, 2012), disabled children (Eisenberg, Fabes, et al., 1988), painful responses to shocks (Batson O’Quin, Fultz, Vanderplas, & Isen, 1983), and starvation and poverty (Oveis, Horberg, & Keltner, 2010) to evoke compassion.

Suffering is the core antecedent of compassion, but suffering does not always lead to a compassionate response. Three basic appraisals determine whether compassion, as opposed to other emotions, is elicited. First, to generate compassion, the suffering of an individual needs to be relevant to the self or the goals of the individual perceiving the suffering. This claim is supported by higher levels of compassion, which are reported for kin (Burnstein, Crandall, & Kitayama, 1994) and emotionally close others, such as friends (Korchmaros & Kenny, 2001). Even temporary manipulations that generate perceived similarity can make another’s suffering feel more self-relevant. Using a minimal manipulation of similarity, tapping fingers with a partner in synchrony versus asynchrony, Valdesolo and DeSteno (2011) demonstrated that participants who were made to feel similar reported greater compassion when witnessing their partner being victimized by unfair behavior and engaged in more helping behavior. If the suffering of an individual is not relevant to the self, then it is likely to elicit other affective states or little emotion at all. In certain cases, when someone’s suffering actually supports the goal or values of the self, that suffering may lead to the experience of *schadenfraude*—taking pleasure in another’s suffering (Ortony, Clore, & Collins, 1988).

A second critical appraisal centers on the sufferer’s deservingness of compassion. Compassion can quickly turn to anger when an individual is perceived to be responsible for the event that caused the suffering (Nussbaum, 1996). Participants who learned an individual had no control over his illness or disease (e.g., contracting AIDS through a blood transfusion) reported greater compassion and less anger for him than participants who learned the individual had contracted the illness or disease through some fault of his own (e.g., AIDS through unprotected sexual contact) (Weiner, Perry, & Magnusson, 1988). A meta-analysis of over 60 studies revealed that the degree of perceived controllability correlated positively with anger and negatively with compassion, and that compassion (but not anger) predicted subsequent prosocial behavior (Rudolph, Roesch, Greitemeyer, & Weiner, 2004). In addition, perceptions of flawed moral character may also lead to appraisals that the sufferer is not worthy of compassion, and accordingly, is unworthy of altruistic behavior and cooperation. Concerns about deservingness, whether founded in perceived responsibility or moral character, are vital to the elicitation of compassion.

Third, appraisals of the ability to cope with the suffering of another person determine the likelihood of the experience of compassion. Responding to someone in need incurs many kinds of costs—the direction of resources to others, potential exploitation, and so on. If an individual perceives these costs to be manageable, whether they be material (e.g., money) or emotional, compassion will be elicited. In support of this claim, a sense of self-efficacy promotes greater compassion in response to suffering. If these costs exceed the capabilities of the observer, then experiences of distress rather than compassion are likely (Hoffman, 1981). One prediction is
that individuals who encounter the suffering of large numbers of people (e.g., starvation in Sudan) are more likely to respond with sadness, distress, or even apathy as a result of their inability to cope with suffering of such a large magnitude.

With someone’s emotional or physical pain as the core antecedent of compassion, its behavioral consequences center on ameliorating such suffering. Compassion promotes altruistic behavior in an effort to help, care for, or soothe the individual who is suffering (Batson, Fultz, & Schoenrade, 1987). Batson, Duncan, Ackerman, Buckley, and Birch (1981) demonstrated that when levels of compassion were high in response to a confederate being painfully shocked, participants were more likely to offer to take her place, even when escape from the situation was made easy by the experimenter. In addition, the behaviors of compassion are accompanied by cognitions that encourage and reinforce these behaviors, such as a sense of similarity or closeness with the sufferer (Oveis et al., 2010).

Compassion as a Discrete Emotion

Despite the fact that compassion has unique antecedents, appraisals, and behavioral consequences, it has not traditionally been considered part of the taxonomy of basic emotions (e.g., Smith & Ellsworth, 1985). Compassion has often been described as a variation of love mixed with sadness (Shaver et al., 1987; Sprecher & Fehr, 2005; Underwood, 2002) or vicarious distress (Ekman, 2003). However, inspired by several recent studies, we argue that compassion has different antecedents, appraisals, and behavioral consequences than sadness, distress, or love. Studies also suggest that the expressions of these emotions have different patterns in the face and body than compassion (e.g., Eisenberg et al., 1989), a point that we return to later in the chapter.

Although individuals report feeling sadness when they witness others suffer, there are important distinctions between the two emotions. Sadness is a negative emotion based on an appraisal of personal loss and is experienced in response to negative events with clear consequences for the self, such as the loss of a loved one or the dissolution of an important relationship (Ortony et al., 1988; Shaver et al., 1987). It is associated with behaviors such as withdrawal from social engagement with others (Lazarus, 1991), which clearly distinguishes it from compassion. Sadness may represent a form or emotion contagion rather than a complementary response to suffering.

Vicarious distress is a natural response to the suffering of another person, but instead of overlapping with compassion, distress can interfere with its experience (Batson et al., 1987). Distress differs from compassion in its focus. Whereas distress and sadness move one’s attention inward to the concerns and needs of the self, compassion drives one’s attention outward to the person who is suffering. Eisenberg and colleagues (1989) found that self-reports of compassion by children shown a video of another child confronting the death of his parents predicted greater helping behavior, but that self-reports of distress predicted lower levels of helping. Although distress and compassion can share the same antecedent of suffering, their distinct appraisals promote very different behavioral patterns.

Factor analysis can provide insight into the distinctions and relationships among compassion, sadness, and vicarious distress. In studies in which a participant was exposed to someone suffering, factor analysis of the endorsement of a variety of emotion words revealed that compassion-related words loaded onto a different factor than sadness- or distress-related words (Batson et al., 1987; Fultz, Schaller, & Cialdini, 1988). In a separate study, when grouped into positive and negative emotions categories, compassion was considered a positive emotion, whereas sadness and distress were classified as negative emotions. In addition, sadness and distress create motivations to avoid and withdrawal, whereas compassion promotes approach and caretaking (Goetz et al., 2010).

Compassion has also been conceived of as a subtype of love (Sprecher & Fehr, 2005; Underwood, 2002). Although fewer empirical studies have teased apart these two emotions, some initial researchers argue that they have different antecedents. While both love and compassion may promote a desire for closeness, love centers on an appreciation of the positive attributes of another, which
is often elicited by sharing positive events together (Shaver et al., 1987). In contrast, compassion is based on the experience of suffering. More empirical research will be important to distinguish compassion from love. Studies that measure the expression of sadness, distress, love, and compassion also have further distinguished between these emotions (e.g., Eisenberg et al., 1989), a point that we return to later in the chapter.

More recently, compassion has been conceptualized as part of an emotional family that also contains empathy, sympathy, and pity (Batson et al., 1991; Campos et al., 2009; Goetz et al., 2010). These compassion-related states have similar antecedents, behavioral consequences, signals, and physiological experience (Keltner & Lerner, 2010). Although we argue that empathy, sympathy, and pity are part of an emotion family, we now briefly discuss the distinctions between them. Empathy or empathic concern, like compassion, is considered to be a state wherein an individual’s attention is focused outward on another rather than inward, and it is considered to include feelings such as sympathy, compassion, and tenderness (Batson et al., 1991). As the research on empathy matures, the definition of empathy is no longer restricted to feeling negative affect in response to another’s suffering, but can be experienced in response to a wide variety of negative and even positive emotions (Rameson, Morelli, & Lieberman, 2012; Rozzman & Rozin, 2006). Whereas empathy is characterized as the sharing of another’s emotions and perspective, compassion is a complementary emotional response to another’s suffering (Lazarus 1991). Sympathy is the most similar to compassion and overlaps in the feeling of sorrow or concern for another person (Batson et al., 1987; Eisenberg et al., 1994). Colloquially, compassion and sympathy are used interchangeably, and research very rarely distinguishes between the two. Pity differs from compassion in that it incorporates hierarchical appraisals of the sufferer’s inferiority that can reduce a sense of similarity to the sufferer (Ben Ze’ev, 2000; Fiske, Cuddy, Glick, & Xu, 2002). Interestingly, their valence is one of the few distinctions among sympathy, pity, and compassion. Individuals place sympathy and pity in the same broad emotion category with compassion. However, when categorized by valence, sympathy and pity are categorized as negative, sadness-related emotions, unlike compassion, which is considered to be positive (Shaver et al., 1987). Future work may further define differences among empathy, sympathy, pity, and compassion; however, these compassion-related states are a family of emotions bound by their similarity.

**Evolutionary Roots of Compassion**

When taking a functional approach to compassion it is helpful to imagine our society without this emotion. Like other basic emotions, compassion serves critical functions and prioritizes particular behaviors. When these behaviors increase the likelihood of survival or the passing on of genetic information, the emotions that motivate these behaviors are selected for by evolution. Darwin recognized the importance of compassion-related emotions, claiming they would be maintained and even encouraged through natural selection processes (Darwin, 1871/2004).

Two arguments have been made by evolutionary theorists for why compassion would be encouraged through different selection processes. First, compassion promotes caretaking behaviors critical to enabling offspring to reach the age of reproduction (Keltner & Haidt, 2001; Trivers, 1971). Adaptations that would encourage caretaking in response to cues of distress in infants would be necessary for infant survival, especially in species where offspring are characterized by an extended period of vulnerability (Berry & McArthur, 1986; Hrdy, 1999). Consistent with this argument, stronger compassion responses are reported for vulnerable targets, such as children and the disabled (Keltner, Horberg, & Oveis, 2006; Zahn-Waxler, Friedman, & Cummings, 1983), individuals who are closely related (Cialdini, Brown, Lewis, Luce, & Neuberg, 1997; Eisenberg & Miller, 1987), and those who are seen as similar to the self (Batson et al., 1981; Oveis et al., 2010). The link between caretaking and compassion is evident even in the literature on attachment styles. Mikulincer and Shaver (2005) found that compassion was more readily felt by individuals with secure attachment styles,
as well as those who were induced to feel securely attached.

A second argument posits that compassion evolved to promote cooperation among nonkin (Frank, 1988; Trivers, 1971). Compassion for strangers, this position argues, promotes helping behavior and perpetuates the formation and maintenance of long-term relationships rooted in the benefits of direct reciprocity (Sober & Wilson, 1998; Trivers, 1971). Compassion, along with a suite of other emotions, such as gratitude and anger, may be important for initiating and monitoring valuable reciprocal relationships (Nesse, 1990). In keeping with this argument, individuals who report high levels of dispositional compassion also report more trusting, cooperative, and positive relationships with others (Zhou et al., 2002). It is plausible that compassion may have initially developed to promote caretaking for kin and was later extended to nonkin as a result of the benefits it afforded through increased cooperation (see Goetz et al., 2010).

If compassion evolved universally in humans to promote caretaking and cooperation, it should be detected in a variety of human cultures and be found in closely-related species that share similar societal characteristics. Compassion has been observed by anthropologists and psychologists in both preindustrialized and industrialized cultures (e.g., Eibl-Eibesfeldt, 1989; Eisenberg, Zhou, & Koller, 2001; Konner, 2003). Compassionate behavior has also been recorded among higher-order primate species, and there is mounting evidence that it existed in early hominid societies. A variety of cases of compassionate acts oriented toward harm reduction and caretaking in chimpanzees has been systematically observed (de Waal, 2007; Goodall, 1990; Warneken & Tomasello, 2006). Chimpanzees have assumed costly behaviors such as jumping into water without being able to swim in order to save an unrelated, crying infant (Goodall, 1990) or embracing an unrelated female who has just participated in a painful conflict (de Waal, 2007). In addition, recent analyses of archeological remains of early hominids suggest that compassion was a robust emotion early in our species’ history. Examinations of skeletons reveal that children with extreme cases of congenital diseases—which should have led to death in infancy—received care from others for years, and that elderly individuals lived long after serious levels of deterioration (Hublin, 2009). These lines of evidence suggest that compassion is universal and part of our evolutionary history.

## Signal and Measurement of Compassion

Given the likely role of compassion in caregiving interactions and mutual cooperation, evolutionary theorists would argue that its display and recognition in another would be critical (Frank, 1988; Hertenstein et al., 2006). Empirical attempts to document a universal facial signal of compassion have had mixed results. As measures of emotion expand beyond the face, emotion researchers are discovering that compassion is among a host of positive emotions expressed in multiple modalities, along with facial muscle movements.

Facial expressions of compassion can be distinguished from similar emotions such as distress, sadness, or love (Goetz et al., 2010). Expressions of compassion are defined by a furrowing in the center of the brow and relaxation of the lower face with the mouth sometimes open or in a frown (Eisenberg et al., 1989). This display of compassion can be compared to expressions of distress, which include a lowering and pulling forward of the eyebrows and nervous mouth movements, such as tensing of the mouth or biting of the lip (Eisenberg et al., 1989). Sadness shares a similar facial configuration to compassion, most notably in the furrowing of the eyebrows, but sadness has a different bodily posture, which we discuss shortly (Ekman, Friesen, & Hager, 2002a, 2002b). Love is characterized by Duchenne smiles, and does not include furrowed eyebrows or lip presses (Gonzaga, Keltner, Londahl, & Smith, 2001; Gonzaga, Turner, Keltner, Campos, & Altemus, 2006).

When facial configurations of compassion were recorded as static images, independent of context, two separate studies—one in the United States, the other in India—failed to find high levels of accuracy in recognition of the display (Haidt & Keltner, 1999; Keltner & Buswell, 1996). Compassion images were correctly identified 33–43% of the time (chance guessing between 6 and 12%).
but were often confused with sadness, which was used to label slides of expressions portraying compassion 36% of the time. These accuracy rates were lower than those for other emotions, which ranged from the high 50s to the 80s. In a relatively recent study, accuracy rates in identifying compassion from photographs were lower when participants were given the option to respond freely rather than select from a list of emotion choices (Widen, Christy, Hewett, & Russell, 2011).

Positive emotions such as compassion are often expressed when individuals are in close proximity and may utilize other modes of expression, such as body movements, touch, or vocalizations. A remarkable study on emotion encoding assessed whether participants preferred to rely on different modes of communication for different emotions (App, McIntosh, Reed, & Hertenstein, 2011). App and colleagues (2011) discovered that for disgust and anger, the face was the preferred method for discerning emotions, but for love and sympathy, touch was the preferred method. Importantly, accuracy rates for recognizing these emotions were much higher when participants were allowed to use the preferred channel for that emotion.

Touch is a critical component of the expression of compassion and has been demonstrated, especially in times of distress, to reduce levels of cortisol in the body (Francis & Meaney, 1999) and activate brain areas associated with reward (Rolls, 2000) that are critical in recovery from suffering (Keltner & Buswell, 1996). Compassion is readily recognized through touch (Hertenstein et al., 2006). In a paradigm used in both the United States and Spain, a toucher touched a touchee on the forearm in an attempt to communicate different emotions. Participants who were touched within this paradigm reliably identified compassion 48–57% of the time when it was embedded in a forced-choice paradigm (where accuracy rates for random selection of an answer would be around 8%). The communication of compassion was characterized by patting and stroking of the touchee’s arm with moderate intensity and for an average duration of 7.6 seconds, which is longer than that for other emotions, such as anger. Furthermore, it appears that the tactile signal of compassion is so robust that feeling the actual touch is not required; observers who watched the videos of past participants using touch to communicate emotions were also able to identify compassion’s expression reliably.

In addition to touch, studies have noted the role of body posture and voice in communicating compassion. Compassion includes an orientation of the head and body forward and a forward lean, which suggest connection and engagement with the sufferer (Eisenberg, Schaller, et al., 1988; Eisenberg et al., 1989). When this stance is contrasted with the posture of sadness, which includes a hunched and withdrawn posture (Coulson, 2004; Shaver et al., 1987) and eye gaze aversion (Adams & Kleck, 2005), it becomes clear that compassion and sadness are signaled in different ways.

Compassion is also communicated through the voice. When participants were presented with half-second, nonword vocal bursts that attempted to communicate different emotions, compassion was identified 24% of the time in a forced-choice paradigm among 12 other positive emotions (again, accuracy rates for random answering would be around 8%; Simon-Thomas et al., 2009). Accurate and reliable measurement of the expression of compassion requires a more global coding system that includes facial expression, movements and orientation of the head and body, touch, and vocalizations, or that at least allows participants to recognize emotions using their preferred channel.

**Compassion and the Autonomic Nervous System**

Witnessing the suffering of another person is associated with changes in the peripheral autonomic nervous system that not only are useful tools in the measurement of compassion but also elucidate how this emotion mobilizes the body for action. What is known about the basic correlates of autonomic processes lays the groundwork for predictions about the relationship of compassion to changes in heart rate. For instance, heart rate tends to decelerate in association with an outward focus of attention (Cacioppo & Sandman, 1978), which is a core aspect of compassion in response to suffering. For example, Eisenberg and col-
leagues (1991) have indeed documented that compassion at the subjective and expressive levels tends to covary with heart rate deceleration, which in turn predicts downstream helping behavior. Participants induced to feel compassion show decreases in heart rate from neutral state inductions, and the magnitude of the physiological response distinguished between those who reported more or less compassion (Stellar et al., 2011).

Changes in heart rate associated with compassion differentiate the autonomic profile of compassion from that of distress. When individuals respond with distress to someone’s suffering, heart rate tends to accelerate (Eisenberg et al., 1991). Distress appears to activate the sympathetic, fight-or-flight system, and signals autonomic arousal. In support of this claim, skin conductance—a pure measure of sympathetic activity that is traditionally associated with general arousal and stress (Dawson, Schell, & Filion, 2000)—has reliably been associated with distress but not compassion (Eisenberg et al., 1991).

More recent work suggests that the parasympathetic system, particularly the vagus nerve, may have an important association with compassion. The autonomic nervous system has two branches, the parasympathetic and sympathetic, which in most cases act antagonistically with one another (Brownley, Hurwitz, & Schneiderman, 2000). Whereas the sympathetic system prepares the body for defensive or offensive behaviors, the parasympathetic system has been implicated in recovery from stress, as well as in processes that take place during restful, calm states (Mezzacappa, Kelsey, Katkin, & Sloan, 2001). The vagus nerve, a critical component of the parasympathetic system, is thought to enable the individual to focus on another and to approach and soothe (Porges, 2003). The vagus nerve is the 10th cranial nerve and projects from the nucleus ambiguus and dorsal motor nucleus, innervating muscles involved in communication (e.g., facial muscles and those that coordinate head movements), as well as organs such as the heart and stomach. It is most often measured through the noninvasive index of respiratory sinus arrhythmia (RSA) (Brownley et al., 2000). The vagus nerve has been linked to facial, vocal displays, attention, nodding of the head when listening, and motor behaviors such as tactile contact, which are all involved in compassion. Some researchers have theorized that the portion of the vagus nerve that is unique to mammals may have evolved to encourage social engagement in humans and feelings of connection to others (Beauchaine, 2001; Kok & Fredrickson, 2010; Porges 2003). In support of this claim, RSA is often inversely related to heart rate and is higher during sustained attention, which both occur during compassion (Suess, Porges, & Plude, 1994). As further support, individuals shown compassion-inducing stimuli, compared to neutral video clips, exhibit higher RSA (Stellar & Keltner, 2013). In children, higher vagal tone predicted greater levels of self-reported compassion when watching a video about another child’s response to a stranger lurking outside his house (Fabes, Eisenberg, & Eisenbud, 1993). Further evidence for the link between vagal tone and compassion comes from clinical samples. Children with autism, who show some of the most significant deficits in the capacity to experience compassion and social connection with others, have low vagal activity (Ming, Julu, Brimacombe, Connor, & Daniels, 2005). Individuals who show high risk for mania, which is characterized by the extreme experience of positive emotion and a heightened sense of connection with others, exhibit extremely high levels of vagal activity (Gruenberg, Johnson, Oveis, & Keltner, 2008). If emotions are associated with changes in the body in preparation for certain action patterns, it is provocative to ask how heart rate deceleration and increased vagal activity serve to promote compassion-related behavior. While emotions such as anger move blood to the periphery in order to engage in aggression (Levenson, 2003), changes in the body associated with compassion and social engagement may calm the body to prepare it to engage soothingly and in a caring manner with those who are suffering.

Compassion and the Central Nervous System

The emerging field of neuroscience has identified a network of areas thought to be associated with empathy and compassion (see Simon-Thomas et al., 2011). Recent work
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has investigated how the desire to approach and care for someone who is suffering, a core component of compassion, activates unique areas associated with caregiving, such as the periaqueductal gray (PAG) (Simon-Thomas et al., 2011). The PAG is an older area of the brain that is associated with the monitoring of pain, as well as caregiving behavior (Heinricher, Tavares, Leith, & Lumb, 2009; Lovick & Adamec, 2009). For instance, the PAG shows greater activation when mothers are shown pictures of infants exhibiting attachment-soliciting behaviors such as smiling or crying (Bartels & Zeki, 2004; Nitschke et al., 2004; Noriuchi, Kikuchi, & Senoo, 2008; Swain, 2010). The PAG plays a critical role during the experience of compassion. It shows greater activation when participants viewed images of sad faces with instructions to view them with a compassionate attitude (Kim et al., 2009), heard compassion-inducing narratives (Immordino-Yang, McColl, Damasio, & Damasio, 2009) and watched compassion-inducing slides (Simon-Thomas et al., 2011). Activation of the PAG during compassionate responding supports a deep link between compassion and caretaking.

Current and Future Directions in Compassion Research

The scientific study of positive emotion, once an afterthought in the emotion revolution, has made great advances. The young science of positive emotion has elucidated important distinctions between different positive emotions and their place in thought and action. However, there are still several unanswered questions in the study of compassion. These include broad questions as to the boundary conditions, how individual differences shape compassion, and the role of emotion regulation in compassion.

Defining the boundary conditions of compassion is critical for understanding why it may be attenuated in some situations and exaggerated in others. For example, in their classic “From Jerusalem to Jericho” study, Darley and Batson (1973) found that creating a context with time pressure reduced participants’ compassionate responses to those in need. More is needed to understand the various contextual forces that shape the compassion experience. Certain environments that prioritize a focus on the self should be particularly likely to diminish the experience of compassion. We argue that even small primes (e.g., making money or wealth salient) would have large effects on the experience of compassion. In addition, environments that are competitive and stressful would likely reduce compassion by shifting one’s focus almost exclusively to the self. According to a report by the American Psychological Association (2010), the impact of stressful environments on compassionate responding will be an important line of inquiry as perceptions of daily stress levels continue to rise. It is of critical importance to understand whether our current society facilitates environments that are damaging to the experience of compassion.

In addition to contextual information, the qualities of both the observer and the sufferer are certain to moderate compassionate responding. In terms of observer qualities, dispositional measures of compassion suggest that certain individuals experience this emotion more than others (Shiota, Keltner, & John, 2006). Cultural identities may also attenuate or intensify the experience of compassion for observers. For instance, lower social class individuals experience greater compassion in response to the suffering of others than their upper-class counterparts (Stellar et al., 2012). These differences in compassion are posited to be responsible for greater levels of prosocial behavior among individuals of lower socioeconomic status (Piff, Kraus, Côté, Cheng, & Keltner, 2010). Studies examining power mirror results of studies of social class; people with high power display a more attenuated compassion response than do people with low power (van Kleef et al., 2008).

Compassion is inherently a social emotion, and little is known about how individual differences in the sufferer influence compassionate responses in others. Compassion is not felt equally for everyone. Evolutionary accounts would predict reduced compassion for those who, because of selfish qualities, may not reciprocate altruistic behavior (Trivers, 1971). Moral judgments about individuals’ dishonesty or lack of trustworthiness may act in similar ways to attenuate compassion in response to their suffering. Future work should examine whether
individuals who hold opposing moral values (e.g., abortion or capital punishment) would also elicit less compassion. Drawing distinctions between ingroup and outgroup membership has a variety of interpersonal consequences that suggest reduced compassion for outgroup members and increased compassion for ingroup members (Chiao & Mathur, 2010). Future work should examine whether reduced compassion for racial or ethnic outgroups is part of the larger set of psychological effects evoked by different group membership.

And finally, the experience of compassion can be regulated like any other emotion. One argument holds that emotion regulation while witnessing another person suffer should reduce negative affect and personal distress, thus allowing for more compassion. Down-regulation of distress may be critical for achieving a compassionate response. As mentioned earlier in this chapter, appraisals centered on the ability to cope with the suffering of another individual are critical in promoting compassion instead of distress. Studies that reduce coping skills via cognitive load or depletion of emotional capacities may promote a more negative affective response, leading to greater distress rather than compassion. One study provides suggestive results related to this line of reasoning, demonstrating a positive relationship between trait emotion regulation strategies and self-reported compassion (Eisenberg et al., 1994), but these results do not indicate how regulation strategies interact with emotional responses to suffering to predict compassionate responding in the moment.

At the same time, one can readily imagine instances in which emotion regulation might reduce compassionate responding. Recent research has documented that when regulation strategies such as reappraisal were engaged while watching compassion-inducing images and information, compassion diminishes (Cameron & Payne, 2011). The relationship between emotion regulation and compassion may also depend on the particular type of regulation strategy being used. There are many different styles of emotion regulation, and two of the most commonly studied forms, expressive suppression and cognitive reappraisal (Gross & John, 2003), may have diverging influences on compassion.

**Conclusion**

Recent research has documented that compassion, an approach-oriented, positively valenced emotion, is different from related emotions such as sadness, distress, and love. Compassion is part of a family of prosocial emotions, including empathy, sympathy, and pity, that motivate helping and soothing behaviors in response to suffering. Compassion is universally signaled through touch and vocalizations and a physiological profile of this emotion is emerging. These multiple methods of measurement will allow more accurate assessment of this vital interpersonal emotion in laboratory settings. Future work aimed at understanding the social contexts, individual differences, and appraisals and regulation strategies that attenuate or amplify compassion are important avenues of future research, with deep societal implications. Compassion propels us to form connections, bonding us to others when they suffer and need help the most. Morality and altruism captivated the minds of scientists even before Darwin and Aristotle, yet little attention has been given to its emotional underpinnings.

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