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The Evolution and Social Dynamics of Compassion

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Abstract

The inner processes that make compassion possible arose from the evolutionary advantage of caring for others, especially offspring, kin and in-group allies. This paper explores issues in defining compassion and its link to similar concepts such as altruism. It also explores compassion as a *social motive and social mentality* that choreographs social interactions and how the successful enactment of compassion is dependent on certain competencies such as sympathy, empathy, perspective taking, and distress tolerance (among others), as well as social contexts. As a motivational system, compassion has to compete with other socially choreographed motives, such as tribalism and individualistic competitiveness – much darker sides of the human psyche that have been harmful in human history. One of the challenges for compassion is to explore not only how it can promote personal well-being but also how it can counteract the destructive sides of our other motives and social mentalities.

Caring for others is an ancient motivational system that first evolved to foster offspring survival (Geary, 2000; Gilbert, 1989; MacLean, 1985; Preston, 2013). Subsequently, evolution utilized the basic neurophysiological mechanisms and processes for offspring-caring and extended them to general kin-based and alliance-based relationships (Barrett, Dunbar, & Lycett, 2002; Gilbert, 1989; Preston, 2013), even to strangers and non-humans (Loewenstein & Small, 2007; Penner, Dovidio, Piliavin, & Schroeder, 2005).

Although caring for others has costs, in terms of risks and use of energy and resources, and is indeed highly kin-focused (Burnstein, Crandall, & Kitayama, 1994; Preston, 2013), recent studies of prosocial behavior have revealed that developing caring motivations and compassion for self and others has a range of benefits on physiological processes (Klimecki, Leiberg, Ricard, & Singer, 2014; Kogan et al., 2014; Simon-Thomas et al., 2012; Weng et al., 2013), psychological processes (Jazaieri et al., 2013; Keltner, Kogan, Piff, & Saturn, 2014; Neff, 2011; Singer & Bolz, 2012), and social relationships (Cozolino, 2007; Crocker & Canevello, 2012; Penner et al., 2005). These benefits even influence genetic expression (Slavich & Cole, 2013). For example, Hoge et al. (2013) found that women with experience of loving-kindness meditation had longer relative telomere length than controls. Fredrickson, Grewen, Coffey, et al., (2013) found that eudaimonic well-being (positive emotion associated with meaning and helping others), in contrast to self-focused pleasure and hedonic well-being, was linked to better physiological profiles involving pro-inflammatory genes. Compassion motives benefit social relationships and well-being whereas ego self-focused motives do not (Crocker & Canevello, 2012). Compassion has also become the focus for psychotherapeutic interventions with increasing evidence for their effectiveness (Gilbert, 2010; Hoffmann, Grossman, & Hinton, 2011; Leaviss & Uttley, forthcoming).

Taken together, research has revealed that the sympathetic–parasympathetic balance, immune and cardiovascular functioning, frontal cortical competencies, genetic expression, and a range of psychological processes all appear to operate more optimally in conditions of safeness and caring. So when humans feel cared for (in contrast to uncared for, marginalized,

rejected, and isolated) and are themselves caring and supportive (in contrast to being self-focused, narcissistic, and/or aggressive/dominant to others), they function more optimally (Cacioppo & Patrick, 2008; Kogan et al., 2014; Slavich & Cole, 2013; Twenge et al., 2010).

Given the importance of compassion and prosocial behavior for human functioning, this paper explores the nature of compassion in a series of steps. It first considers definitions of compassion and its links with other prosocial concepts such as altruism and kindness. It then considers the evolution of caring behavior in juxtaposition with competencies such as sympathy and empathy, and more recently evolved cognitive ones such as perspective taking, mentalizing, imagining, reasoning, and self-identity concerns, that set the foundations for human compassion and render it a *social mentality*. Finally, the paper details ways in which a compassion social mentality has to compete with other mentalities (e.g., for dominance, control, tribal hostilities, and submissive-obedience) that can be sources of suffering to self and others (Huang & Bargh, 2014). The focus of this paper is on being compassionate to others rather than on *receiving* compassion or *self*-compassion, for which there is another sizeable literature (see Singer & Bolz, 2012).

Defining Compassion

Although the word compassion comes from the Latin *compati*, meaning to suffer with, most modern definitions of compassion recognize that it is rooted in caring *motives* that require a range of competencies for its enactment, including empathy, sympathy, generosity, openness, distress tolerance, commitment, courage, among others (Dalai Lama, 1995; Gilbert, 1989, 2005, 2009; Gilbert & Choden, 2013; Goetz, Keltner, & Simon-Thomas, 2010). The Buddhist scholar Geshe Thupten Jinpa, who helped develop the Stanford *compassion cultivation training*, defined compassion in a fairly typical Buddhist way as

> … a multidimensional process comprised of four key components: (1) an awareness of suffering (cognitive/empathic awareness), (2) sympathetic concern related to being emotionally moved by suffering (affective component), (3) a wish to see the relief of that suffering (intention), and (4) a responsiveness or readiness to help relieve that suffering (motivational). (Jazaieri et al., 2013)

Emotion researcher Ekman (2014), who studied with the Dalai Lama, similarly suggests four dimensions of compassion: (i) empathic compassion (being in touch with the feelings of suffering of others); (ii) action compassion (taking actions to alleviate suffering); (iii) concerned compassion (based on a motivation for helping); and (iv) aspirational compassion (linked to a more cognitive desire to develop compassion). These definitions are useful for contrasting compassion with other concepts such as altruism, kindness, sympathy, empathy, and generosity.

A closely related concept to compassion is *altruistic responding* (Preston, 2013). The value of this approach is that it links to an evolutionary literature on altruism, with details of the subcomponents of caring/helping and their neurophysiological mechanisms. In a major review, Preston (2013) offered the following definitions of altruism, which are very close to the concept of compassion:

> Altruistic responding is defined as any form of helping that applies when the giver is motivated to assist a specific target *after perceiving their distress or need* …. Altruistic responding implies an active behavioral response initiated by the perception of need, which is differentiated from cooperative, diffuse, or unintentional forms of altruism that likely derive from other evolutionary and mechanistic origins … Altruistic responding further narrows these classifications to only include cases where the motivation to respond is fomented by direct or indirect perception of the other's distress or need …. This excludes cases that emerged later in time or include diverse processes, such as cooperation or helping influenced by strategic goals, social norms, display rules, or mate signaling. (P. 1307; italics added)

For Preston (2013), the origins of altruistic responding are in the evolution of detecting and responding to distress calls in infants – coming to their aid (e.g., retrieving/rescuing). She identifies both passive and active forms of caring. Passive forms provide soothing and comforting, whereas active forms are specific behaviors designed to rescue or alleviate distress, requiring a commitment to action. This definition excludes concepts of sharing or acts that focus on the flourishing and well-being of others or general caring. Others, however, argue that human altruism also evolved with, and is central to, cooperation (Warneken & Tomasello, 2009).

Another model of caring, which helped to develop a secular view of compassion (Gilbert, 1989, 2009; Gilbert & Choden, 2013) was outlined by the developmental psychologists Fogel, Melson, and Mistry (1986). They suggested that the core elements of care-nurturance are: "The provision of guidance, protection and care for the purpose of fostering developmental change congruent with the expected potential for change of the object of nurturance" (p. 55). They also suggested that nurturance involves *awareness* of the need to be nurturing, *motivation* to nurture, *expression* of nurturing feelings, *understanding* what is needed to be nurturing, and an ability to match nurturing with *feedback* from the nurtured to the nurturer to enable a change in behaviors when needed. Nurturing needs to be skillfully enacted.

The degree to which compassion is similar to altruistic responding as (narrowly) defined by Preston (2013) raises the issue as to whether compassion should include acts that focus on helping and supporting others reach their goals. Is compassion also about facilitating and working for *the flourishing and well-being* of others or should the term be kept for conditions of suffering? Buddhist concepts suggest that motives that focus on the well-being, welfare, and flourishing of others are compassionate (Dalai Lama, 1995). Related to these issues is the concept of kindness (derived from notions of kinship) and its relationship to compassion. For example, remembering a birthday would be kind but not necessarily compassionate. In addition, such an act, and those that focus on flourishing, could be pleasant to do. However, although compassion is often seen as a positive act, it is often not pleasant to be in touch with others' suffering and indeed can be stressful (Condon & Barrett, 2013). The link between kindness and compassion is not straightforward (Phillips & Taylor, 2009).

So there is debate and controversy around definitions of compassion, kindness, and altruism. Nonetheless, given the current concepts of compassion, most approaches seem to coalesce around the idea that compassion involves "a sensitivity to suffering in self and others with a commitment to try to alleviate and prevent it" (Germer & Siegel, 2012; Gilbert & Choden, 2013). This view splits into *two psychologies* of (i) the *intention* and act of turning toward and engaging with suffering rather than avoiding or dissociating from it; and (ii) the *intention* to acquire the wisdom to learn how to alleviate and prevent suffering and act on that wisdom. Jumping into a fast-flowing river to save a person is a courageous compassionate intention (first psychology) but if one cannot swim it is not a wise compassionate action (second psychology). Indeed, in the Buddhist traditions, dedicating oneself to acquire the skills and wisdom to help others (and that will include understanding and working with one's own mind) is central to developing *bodhichitta* (Gilbert & Choden, 2013). The desire to be a medical worker is a compassionate intention but then requires years of dedicated study.

If we consider the active rescuing-protecting element of altruistic responding as central to compassion, then *courage* to move toward (rather than away from or avoid) the pain of self and others is a salient dimension. Courage operates in the case of (say) working to help those with infectious diseases and with risking being infected oneself (as has tragically happened in people trying to help those with the Ebola virus). Other cases may require *moral courage* to stand against injustice and persecution. The essence of the Christian story of compassion is courageous suffering to save others and self-sacrifice for the benefit of others. Preston (2013) highlights the fact that altruistic responding can be linked to approach-avoidance conflicts, and that in order to

engage in such acts, in some threat-contexts, the threat-avoidance systems need to be inhibited or overridden – which is another way of thinking about courage.

Along with courage, compassion can involve traits linked to emotional connectedness and capacities for warmth, gentleness, tenderness, and soothing-calming (Gilbert, 2009, 2014; Music, 2014; Porges, 2007). Preston (2013) refers to these components as passive caring. Sometimes, these different components – active courage/justice versus passive warmth – are associated with the different genders, and may depend on different skills and abilities, although the degree of this is uncertain (Music, 2014). Even so, different qualities of compassion are not necessarily correlated. For example, not all courageous people (rescuers) are tender and not all tender people are courageous; and there is a saying that people can be "hard on the outside and soft on the inside."

Importantly, the alleviation and prevention functions of compassion are likely to be different as well. For example, prevention requires foresight, with a focus on growth, flourishing, and optimizing; e.g., I can prevent the suffering of my children by ensuring they are well fed, loved, and have optimum developmental trajectories – which takes us back to the concepts of caring outlined by Fogel et al. (1986). When we have compassion for a suffering community, it involves not just alleviating their immediate suffering but also having empathic insights into what they will need to flourish and prevent future suffering. Compassionate behavior is not just feeding somebody today but also teaching them how to farm.

Compassion and Prosocial Evolution

Prosocial behavior, of which caring and compassion are a part, has been one of the main drivers of human evolution, including human intelligence (Carter, 2014; Dunbar, 2007, 2010; Porges, 2007). Over recent years, there has been increasing research looking at the evolved physiological mediators for caring behavior and therefore compassion. There is now considerable research suggesting that oxytocin is associated with a range of prosocial behaviors that underpin mammalian and, especially, human sociality and caring, including parent–infant recognition and caring, pair bonding, friendship formation, trust, and social memory (Carter, 2014; MacDonald, 2013). Variations in oxytocin receptor genes have been linked to prosocial behavior and empathic accuracy (Laursen et al., forthcoming). However, oxytocin is also linked to greater *hostility to outsiders* and maternal aggression to potential threats to their infants (De Dreu, Greer, Van Kleef, Shalvi, & Handgraaf, 2011). So while it is important for some aspects of prosocial behavior, oxytocin may also help promote "courage to protect" in some contexts. The problem here is that, under some conditions, oxytocin (like altruistic responding perhaps) can have a potential dark side, as in tribal violence to protect one's group, their values, or one's homeland. A further complexity is whether this is an oxytocin or vasopressin effect (Carter, 2014)

Another specific physiological system, that evolved with mammalian caring and facilitates it, is the myelinated parasympathetic vagus nerve (Porges, 2007). Kogan et al. (2014) provide a major overview of the link between this branch of the parasympathetic system and prosocial behavior. Individuals with good parasympathetic tone, compared to those who are more sympathetic dominant, tend to be more trusting, helpful, and emotionally regulated.

Changes in the facial morphology of evolving humans suggest a trend toward feminization, associated with increased caring and social affiliation behavior within groups. This has been linked to changes in testosterone in human evolution (Cieri, Churchill, Franciscus, Tan, & Hare, 2014). Among primates, paternal caring and investment are relatively unique characteristics to humans. Muller, Marlowe, Bugumba, and Ellison (2009) compared two African groups, showing that high and low parental investment groups differed in testosterone levels in predicted directions. Laboratory studies with human fathers have also shown complex relationships

between oxytocin, testosterone, and parental caring (Weisman, Zagoory-Sharon, & Feldman, 2014). As noted by Muller et al. (2009), testosterone tends to promote competitive behavior. This may be important when we think about how different social and economic systems may stimulate either competitive or cooperative behaviors, with consequences for hormone profiles like testosterone and implications for prosocial and compassionate behavior (Kemper, 1990).

Although the (neuro)physiological mechanisms for caring can be traced back to primates, rodents, and beyond (Carter, 2014; Preston, 2013), there are obvious aspects to human compassion that evolved recently and are very different from those of rodents or primates. For example, Buddhist traditions suggest that opening to a conscious awareness of the reality and immensity of suffering is only possible in humans and that this insight stimulates deep sadness. This is an important emotion to tolerate because it is a backdrop to compassion (Soeng, 2007). It is difficult to create animal models for these aspects of compassion.

Caring as an Evolved Social Mentality

Motives such as food or shelter-seeking do not require interactions with other minds. Social motives do, and they require specialist social processing competencies to engage in *interactional dances* to enable the motivation to secure its biosocial goal (Gilbert, 1989, 2005, 2014). Specific motives (e.g., for sexual, competitive, co-operative or caring acts) with their array of specific (input) stimulus processing and (output) behavior competencies have been called social mentalities (Gilbert 1989, 2014). So a sexual motive requires identifying potential partners, displaying sexual attracting signals physiologically responding to signals of potential engagement (sexual arousal), and then enacting reciprocally dynamic, interactional dances/displays, leading to copulation. Males who get the dance wrong can be rejected by females. Likewise, social mentalities like caring–compassion require social processing competencies for them to be successfully enacted (Gilbert, 1989, 2009, 2014).

MacLean (1985) suggests that a first competency of caring is to notice and *recognize* one's own kin as kin (offspring) and not treat them as another meal! "Don't eat the kids." The next is referred to as parental investment (Geary, 2000). The earliest forms of this required no interaction or stimulus processing systems for communication between caregiver and cared for. So, for example, building nests out of harm's way is protecting infants from possible predation, and the better the parent is at doing this, the greater the chance of their infant's survival. Next is the ability to detect, decode, and respond to distress signal/calls (Wang, 2005). For example, crocodiles can detect, be orientated to, and respond to the calls of their hatchlings in the nest and carry them in their mouths to the water's edge; they can also protect them from predators in the short term (Preston, 2013). Thereafter, the infant crocodiles are on their own.

Subsequently, with the evolution of warm-bloodedness and mammalian reproductive strategies, parenting evolved to stay close to the infant and evaluate different signals and needs in their offspring while providing a range of services including protection, distress-call-rescuing, provisioning, feeding, cleaning, warmth, and comforting. To provide the different elements of caring competently, the care provider uses specific stimulus processing systems to detect, attend to, and decode the nature of the signals emanating from their offspring; select appropriate responses; and then monitor their own behavior according to the way the offspring responds to them. This involves evolving processing competencies for dealing with reciprocal, changing patterns of social signals and interactional dances. So caring becomes highly interactional when the parent can decode and then respond appropriately to specific signals/stimuli from their offspring and for offspring to respond appropriately and positively to those signals and behaviors from the parent. These becomes a basis for communication between 'minds'.

Crucially, the evolution of a range of human cognitive competencies over the last two million years has dramatically changed the dynamics of how interactional dances are played out, so that

social mentalities like caring and compassion are not as stimulus-bound or modularized as they are for many non-humans (Dunbar, 2007; Mithen, 1996). Human cognitive abilities enable us to understand the principles, functions, and nature of caring; anticipate the effects of caring; and work out complex (or wise) ways of enacting caring. One of the consequences of such a mind is that it can use motivational competencies for different functions. As Mithen (1996) points out, understanding *the principles* of caring required for particular life forms was crucial to the development of agriculture. Indeed, insight into how caring can be applied to any object such as one's shelter, home, garden, or even family car, so that they prosper and avoid going wrong, had a major impact on our capacities to cope with the struggles of life (Mithen, 1996). The archeological record also suggests that humans with major injuries, such as broken bones, and diseases increasingly survived and recovered. This could only have happened if they were being looked after wisely (Spikins, Rutherford, & Needham, 2010). This 'wise and insightful' caring was new in the primate line; indeed, most primates are frightened of animals who show signs of disease or deformity and avoid them (Goodall, 1990). Humans were able to overcome fears of disease and pain to help others and this, Spikins et al. (2010) suggests, was a major advance for compassion.

One major development in human evolution was cognitive mechanisms that enabled us to understand our minds, social interactions, and social contexts in completely new ways. These include competencies such as empathy, theory of mind, and mentalizing (Suddendorf & Whitten, 2001). What turns caring into compassion is this ability to bring these complex competencies to the motivation for caring and for us to understand and resonate with *the minds* of others.

Sympathy, Empathy, and Perspective Taking

Sympathy is commonly associated with compassion, although it is sometimes confused with pity. Eisenberg, VanSchyndel, and Hofer (2015) define sympathy as

> … feeling sorrow or concern for a distressed or needy other on the basis of the comprehension of another's state or information on another's state or condition. Unlike empathy, it does not consist of feeling the same emotion (or a highly similar emotion) that the other person is experiencing or is expected to experience. (P. 7)

Although sympathy and compassion overlap, in that both involve concern for the suffering of others, they suggest that

> … sympathy may not always motivate the desire to assist another, especially in contexts where it is difficult to assist. In contrast, compassion often is viewed as necessarily involving the desire to help another. (Eisenberg et al., 2015, P. 7)

Indeed, there are many reasons why sympathy can be blocked or why sympathy can fail to produce helping (Loewenstein & Small, 2007). This analysis again highlights the importance of the two different psychologies of compassion: engaging with suffering and the commitment to help. In addition, commitment to learning how to help might be important over a long term, well after the immediate emotional feelings for suffering have faded. In fact, one might be buoyed by a sense of pleasure or joy in seeking and finding a solution. For example, a researcher is inspired to find a curer for cancer and will spend many years on it.

Whereas the word compassion comes from the Latin *compati* and implies "suffering with", empathy comes from the Greek *empatheria* meaning "to feel into" or "to enter into the experience of another." It does not imply awareness of suffering particularly, nor motivation to help particularly, *but a competency*. When there is a focus on suffering or distress, it is often

called *empathic concern* (Decety & Cowell, 2014). The overlap between empathy and compassion can be confused, especially with the concept of empathic concern, so it is important to note that caring *motivational* systems and *competencies* like empathy have different evolutionary histories and function in different ways (Panksepp & Panksepp, 2013; Zaki, 2014).

Indeed, empathy has had a very checkered history in terms of its definitions and meanings (Decety & Ickes, 2011; Zaki, 2014). In a major review, Batson (2009) identified eight definitions of empathy. The most common is to distinguish between emotional empathy and cognitive empathy. Emotional empathy links to emotional contagion and the ability to resonate and feel with the other, whereas cognitive empathy is now often called perspective taking (Decety & Cowell, 2014; Decety & Ickes, 2011). Shamay-Tsoory, Aharon-Peretz, and Perry (2009) separated the competencies of emotional and cognitive empathy and showed distinct, separate anatomical substrates, with emotional empathy being linked to the inferior frontal gyrus while the more recently evolved cognitive empathy was linked to the ventromedial prefrontal cortex.

Panksepp and Panksepp (2013) offer an evolutionary analysis of empathy, suggesting that emotional resonance evolved first and needs to be at the heart of empathy and separated from the more recently evolved cognitive abilities that might underpin perspective taking. This means that empathy, which involves emotion attunement and resonance, is by no means always focused on an implicit concern or care for the other. As Panksepp and Panksepp (2013) note, for example, empathy can be related to how fear spreads between conspecifics. So empathic emotional attunement and its relation to compassion is tricky, as, for example, when we see somebody we admire taking vengeance on someone we hate. Empathizing and resonating with vengeance is not exactly caring. Empathizing with one's friends is very different from empathizing with one's foes (Loewenstein & Small, 2007). Indeed, there is increasing evidence that coming into contact with strangers is stressful, and stress interferes with different aspects of empathy; it blocks emotional resonance and contagion. Blocking the stress response can facilitate this aspect of empathy (Martin et al., 2015).

Zaki (2014) has also indicated that the degree to which people are prepared to attune to the emotions of others is very much dependent on the *motivations underpinning their relationship*. Gilin, Maddux, Carpenter, and Galinsky (2013) highlighted the fact that motivation is crucial for determining in what situations perspective taking or emotional empathy is helpful. They showed that in competitive situations, perspective taking that does not involve emotional connectedness is more useful than emotional empathy, whereas in interpersonal caring situations, emotional empathy is important.

Linked to perspective taking is the competency of mentalizing. This concept stresses individuals' ability to understand that people think and behave in the ways they do because they have minds with their own motives, emotions, and personal histories (Fonagy, Gergely, Jurist, & Target, 2002). The mentalization competency to understand *why* a person is feeling or behaving as they are, rather than (just) what they're feeling, may require different skills, and be subject to different emotions and personal histories (Liotti & Gilbert, 2011).

Indeed, there is another automatic process that can interfere with both accurate emotional and cognitive empathy (perspective taking) and mentalization. This is called projection; assuming people feel and think as one does oneself (Nickerson, 1999). In fact, it is easy to make errors in how we think other people think or feel if we use only our own egocentric judgments rather than thinking about the perspective of the other (Nickerson, 1999). There is a difference between the automatic response to another person and an effortful, imaginal process by which we deliberately try to imagine ourselves in the position of the other; to see the world through *their* eyes. Again, the issue of motivation is crucial (Loewenstein & Small, 2007).

In different ways, both emotional and cognitive empathic competencies require being able to be in touch with and tolerate one's own emotions and motives. For example, psychotherapists

who are fearful of some of their own sexual or aggressive fantasies and impulses, or death fears, or even deep feelings of sadness, may find it difficult to really tune in emotionally to those inner experiences in another. Such therapists can engage in subtle avoidance of certain areas (Gilbert, 2009). Psychoanalysts have long argued that we can even attack others for things we cannot bear to experience in ourselves. It has been noted, for example, that homophobic people may well be relatively unaware of their own sexual conflicts (Adams, Wright, & Lohr, 1996). While the competencies for empathy, that include emotional resonance and perspective taking, are important for compassion, they should not be confused with the motivational component of caring.

Bringing it Together: The Social Mentality of Compassion

As suggested, the social mentality of compassion involves caring motivation *plus* a range of competencies that enable its (wise) use. These are depicted in Figure 1 (see Gilbert, 2009; Gilbert & Choden, 2013, for details). Based on the two psychologies of compassion discussed above, the inner circle represents the first psychology of compassion as the ability to engage, stay with, and understand the sources of suffering. The outer circle represents the second psychology of compassion as (developing) the wisdom to understand what will be helpful with help focused emotions, (e.g., loving kindness) and the courage for action. When used for psychotherapy, all these different components are assessable and potentially trainable (Gilbert, 2010). The outer qualities of wisdom, strength, and commitment are ways of pulling together these different components for a compassionate mind and compassionate self-training (Gilbert, 2009, 2010, 2014; Gilbert & Choden, 2013). All of these qualities are interdependent and influence each other.

Briefly considering the attributes of the first psychology and inner circle, *the motivation for caring* exists before any encounter, ready to be stimulated by specific triggers (Fogel et al., 1986; Preston, 2013). Importantly, the human evolution of self-awareness means that compassion can be linked to self-identity; no animals as far as we know can think or seek to create such an identity and sense of self. Reed and Aquino (2003) show that, when caring, kindness, and honesty become *core to one's identity*, this is associated with less hostile behavior toward outgroups, increased probability of forgiveness in harmful situations, and generally increased prosocial behavior. There is also evidence that compassionate self-identity goals, in

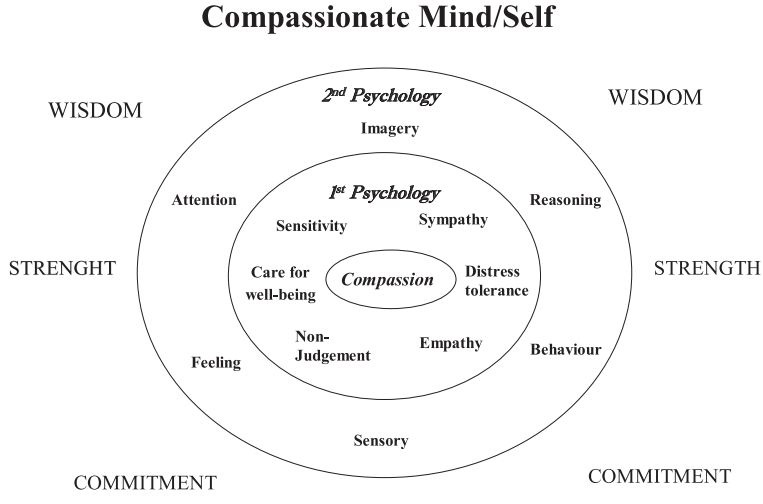

Figure 1 The two psychologies of compassion. Adapted from P. Gilbert (2009), *The Compassionate Mind*. With kind permission from Constable & Robinson.

contrast to ego, self-image, and shame-avoidant goals, have very different effects on social relationships and mental health (Crocker & Canevello, 2012).

Attention *sensitivity* is the ability to notice, rather than turn away or avoid, stimuli that trigger caring motivation. *Sympathy* is the emotional connectedness, with distress aspect. For individuals to cope with the sympathetic feelings aroused by attention to suffering, they need *distress tolerance*, rather than avoidance or dissociation. As individuals can contain, hold, and tolerate distress, they can utilize their emotional *empathy* skills for allowing themselves to feel what others may be feeling and cognitive *empathy* skills such as perspective taking, mentalizing, and theory of mind to (try to) understand the nature of the suffering and its causes. The last component is *non-judgment*, which does not mean non-preference but rather taking non-condemning, non-blaming, or non-prejudicial views.

While the first psychology relates to turning toward, attending and engaging with suffering, coming to understand its nature and causes, the second psychology addresses the issue of (commitment to) developing insight, wisdom and practices to know what to do and the courage to act on this wisdom. So the second psychology of compassion requires competencies of *attention*, knowing, and learning what to pay attention to. This might include paying attention to others who could help or paying attention to one's inner knowledge/experience. *Imagery* relates to what we imagine or fantasize. Compassion is not stupid, so *reasoning*, perspective taking, and focusing and developing one's knowledge on how to alleviate and prevent suffering are key skills. Compassionate *behavior* depends on context. Sometimes, this is (passive) calming, warm, and affiliative, but at other times, it may require (active) courageous action, as in confronting injustice, assertiveness, protecting people, or urgently getting them to hospital, or even stopping people from doing what they want to do (e.g., the alcoholic wants another drink but the compassionate person refuses them and copes with the resultant conflict). The *feelings* and *emotions* of compassion vary according to context and needed action. While tenderness, warmth, and gentleness (e.g., loving kindness) can be important, these are not necessarily the emotions one needs for rescuing; e.g., rushing into a burning house to save the family. *Sensory focusing* is body awareness and training that is conducive to compassion and compassion cultivation.

All these elements are interdependent. Consider what would happen if any one of these elements became problematic. For example, sympathy without empathic perspective taking or how to take a helpful orientation could be overwhelming, or only emotional contagion may result. Perspective taking, without the emotional components of empathy, can be somewhat cold, detached, and used for self-interest (Gilin et al., 2013; Zaki, 2014). In this model, one of the core qualities is *distress tolerance* because without distress tolerance individuals may engage avoidance. Non-judgment is important because being judgmental could be linked to a sense of deserving to suffer, blaming people, racism, and even taking pleasure in people's misfortune (see below). So compassion cannot be easily reduced to simple definitions or emotions but is a complex evolved social mentality. Cultivating compassion motives and its competencies over the long term can be linked to specific forms of training (Weng et al., 2013) working with the parasympathetic system to enable feeling safe (Porges, 2007) facilitating a prosocial orientation to relating (Kogan et al., 2014) and cultivating social contexts that support and reward compassion (Gilbert, 2009).

Compassion and the Dark Side: Blocks, Fears, and Resistances

Having explored some of the components of compassion, we can now turn to the fears, blocks, and resistances to compassion, of which there are many (Gilbert, McEwan, Matos, & Rivis, 2011). Indeed, people can fear being compassionate to others for many reasons linked to a sense of them not deserving it, to fear of another becoming too dependent, or to a more selfish desire

not to feel distress (Gilbert et al., 2011). One other obvious problem for compassion researchers is that not all (apparent) compassionate behaviors are rooted in caring motivational systems (Eisenberg, 1986). Indeed, some people engage in what looks like caring behaviors for self-serving reasons such as Machiavellian tactics or a desire to be liked. In social anxiety, ingratiating oneself by trying to be kind and helpful can be a safety strategy for acceptance (Weisman, Aderka, Marom, Hermesh, & Gilboa-Schechtman, 2011). Catarino, Gilbert, McEwan, and Baião (2014) found that trying to be compassionate and kind in order to be liked and avoid marginalization or rejection, unlike genuine compassion, was associated with higher levels of depression, anxiety, and stress. Some people can be compassionate because their religion requires it, and it is therefore essentially related to trying to earn a place in heaven. Some children, who have lacked caring in early life, can become what Bowlby (1980) called compulsive caregivers – always putting the needs of others first – but this carries health risks (Bowlby, 1980). Some people engage in caring out of guilt or the fear of being shamed for not caring (Martin, Gilbert, McEwan, & Irons, 2006). Studies of compassion that only rely on behavior cannot always tell the motivation behind it.

The flow of life

When confronted with the reality of the human condition, as part of an evolved life form, we can become overwhelmed, lose distress tolerance, and simply avoid, deny, or dissociate. The reality is that, as biological beings, we (and all we love) grow, decay, and die, sometimes painfully and slowly. Before modern medicine, infant mortality was high and people lived their shorter lives moving between episodes of intense pain and incapacity. This is still true in many parts of the world. Confronting the reality of suffering, decay, death and impermanence can create a sense of dread and terror, so we dissociate and avoid thinking about it (Pyszczynski, Greenberg, & Sheldon, 1999). But the process of dissociating from the reality of suffering all around us, aligned with our genetic biases for kin and in-group caring and sharing, means that the relatively wealthy continue to accumulate their wealth without sharing, and suffering continues unaddressed on a vast scale (Sachs, 2012).

Inner competing motives

A challenge for compassion is that it has to compete with other evolved motivational systems and social mentalities that promote self- (or selfish genetic) interests that are also seeking expression and can turn compassion off. People can behave compassionately in one context but with hatred and vengeance in another (Zimbardo, 2008). These other motivations can function relatively autonomously, have their own priorities, conflict and suppress each other, and even operate non-consciously (Huang & Bargh, 2014; Ornstein, 1986). So the human brain evolved with ancient motivational systems for sexual opportunism (Barrett et al., 2002), conspecific aggressive behavior and dominance seeking (Tang-Smith, Johnson, & Chen,), and group living (tribalism; Van Vugt & Park, 2009) – as well as motives for caring and building affiliative relations.

Self-focused motives for food, sex, and reproduction, acquiring status and control within social groups (sex, power, and status – the big three in evolutionary terms), have different strategies and phenotypic options. For example, one of the dynamics of sex, power, and status seeking is the degree to which individuals are orientated to support and respect others during their pursuits or are prepared to cause suffering (Tang-Smith et al., forthcoming; Zuroff, Fournier, Pattall, & Leybman, 2010). One set of traits that are highly self-focused and non-compassionate has been identified and labeled as the Dark Triad of Machiavellian, Narcissism, and Psychopathy (Furnham, Richards, & Paulhus, 2013). Another is ruthless ambition (Tang-Smith et al., forthcoming; Zuroff et al., 2010). These various patterns are overrepresented in the higher

echelons of business and government and share a common attribute – *callousness* (Furnham et al., 2013). Meffert, Gazzola, den Boer, Bartels, and Keysers (2013) found that, when asked to view video clips of people receiving painful stimuli, people with psychopathic traits did not respond with the empathic neurophysiological profiles of controls – in other words, empathy circuits seem to be non-active. But when asked to identify with the person in the video clip, then these circuits were activated. People with psychopathic traits might be competent at perspective taking and can use it when they need to but may lack caring motivations or being emotionally moved by the suffering of others. In contrast, people with Asperger's syndrome appear to have the opposite difficulty in that they can experience emotional reactions to emotional pictures but they struggle with perspective taking (Dziobek et al., 2008).

Competing groups (tribalism)

When different groups of primates clash over resources (including monkeys and even chimpanzees, less so bonobos) they can commonly injure and kill each other (Goodall, 1990). The use of human intelligence to violently pursue tribal motives has been responsible for the invention of horrific weapons and ways to kill, maim, and torture (Abbott, 1993; Van Vugt & Park, 2009). Looking at human history, the blood of the slaughtered could fill an ocean. Even today, humans seem almost incapable of solving tribal conflicts without horrendous violence, callousness, and cruelty, as the Middle East is once again showing.

Compassion is much less likely to be generated toward those seen as outgroups than ingroups, and especially so if outgroups are stigmatized or seen as a threat (Loewenstein & Small, 2007). There is also evidence for a *social* dominance motivational system that relates to wanting your own group to be superior to other groups and even entitled to exploit and abuse other groups, as in slavery (Gay, 1995). Martin et al. (2014) offer a review of this literature. In their study, they found that social dominance traits were associated with justifying inequality and a *fear* of all forms of compassion. In addition, people make judgments about whether suffering is inadvertent or the person contributes to their own misfortune; blaming others can be used as a justification for not being compassionate (Skitka, 1999).

Cruelty

Cruelty is another major disposition for humans that compassion needs to tackle (Gilbert, 2005). A visit to the torture chambers in the Tower of London shows people's inventiveness in creating sadistic horrors (Abbott, 1993). Cruelty, like compassion, has an evolutionary history and adaptive functions (Nell, 2006) and can be socially cultivated and facilitated (Gay, 1995; Zimbardo, 2008). Even in America, the CIA has been shown to use torture, as outlined in a 600-page Senate report, raising awareness and debate within America (e.g., http://www.huffingtonpost.com/news/cia-torture-report). War is an obvious source of appalling cruelty on a vast scale, but many other forms exist. Humans have been responsible for horrendous slavery (from the building of the pyramids, the great Wall of China, to the slaves on the plantations in America), and slavery still continues today, including sex trafficking. Humans are very capable of coming up with cruel social practices, such as female Chinese foot binding, where over hundreds of years, billions of young girls up to five years old had their feet broken, sentencing them to live in constant pain for the rest of their lives (Mao, 2007). We still live with female genital mutilation, domestic violence, rape, and various forms of abuse. There are untold tens of thousands of criminal gangs that are quite prepared to frighten, murder, torture, or facilitate drug addiction and sex traffic for profit.

There is a word in German, *Schadenfreude*, which means taking pleasure in the misfortune and suffering of others (Leach, Spears, Branscombe, & Dossje, 2003), and this is the exact opposite of compassion. Tragically, we are a species that enjoys watching others suffer. The Roman games (which lasted over 700 years) are classic examples. In the first three months of the opening of the Coliseum in AD 80, estimates suggest that over ten thousand people died for entertainment. As for entertainment today, observers note that the last 10 years has seen an increasing shift toward more sadistic and sexualized violence on TV and in films; *Game of Thrones* being but one example. As we watch more fantasy violence, there is the potential for us to become desensitized, unable to adjust to the reality of suffering around us, as if it too is all some kind of fantasy. Along with evolutionary explanations for this poor state of affairs, and disinterest in the plight of strangers, is the idea that at a deep level humans are in a state of terror and rage at the cruelties and harshness of life itself. Many philosophers have wondered who would choose to be born into a world full of disease, where life is short lived, and even getting enough to eat and surviving can be a struggle. Add to this the fact that the human brain itself is a source of intense suffering and cruelty, and it seems rather dire (Gilbert, 2009; Pyszczynski et al., 1999).

Submissiveness and compassion

Another compassion block is obedience and submissiveness. Submissive behavior – the desire to appease and win approval from leaders, conform and mimic group values and behavior, and not stand against (immoral) authority – can also be a source of cruelty on a massive scale (Kelman & Hamilton, 1989). Although a number of studies have shown that compassion is linked to the personality traits of agreeableness and conscientiousness, Bègue et al. (forthcoming) showed, in a Milgram-type experiment, that these two traits are also associated with conformity, not wanting to cause trouble, and obedience. This obviously means they were not compassionate to those to whom they were asked to deliver shocks. This raises the core issue about courage as being central to compassion when called on to stand against or resist pressure to behave non-compassionately. So compassion is more than just wanting to help people or be nice and agreeable. The courage element of compassion is salient in counteracting these human tendencies.

Caring and compassion are fundamental and major motivational systems within us, but they are still easily confined to familiars and in-groups because that is how they evolved. In addition, we are more orientated to help friendly and happy people than distressed, unhappy people, meaning that compassion is not always directed to the most distressed (Hauser, Preston, & Stansfield, 2013). The challenge for humanity and, in particular, science is how to help individuals, social groups, and societies harness the social mentality of compassion and enable it to compete with the other potential motives and darker sides within us (Music, 2014). We are as much created and choreographed in our social contexts as we are built by our genes. Indeed, recent epigenetic studies show genes are also changed in their expression by social contexts (Slavich & Cole, 2013). Building compassion-cultivating contexts will be a collective effort.

Conclusion

Compassion is rooted in evolved, caring motivational systems and social mentalities which, in humans, have become open to cultivation and regulation through high-level cognitive processes, complex social and cultural practices, and self-identity issues. Compassion can be understood as a social mentality of "caring motivation + social processing and behavioral competencies." Knowledge is increasing concerning the genetic and neurophysiological infrastructures of compassion and the social contexts that facilitate or inhibit it. Research has

illuminated how compassion can have very powerful beneficial effects on our own minds, physiology, and social relationships. It is also clear that people like helping others, and while not everybody can be courageous heroes, many people want to be healers, teachers, scientists, or protectors with the hope of finding ways *to make a contribution* to the common good in their own ways. Even in situations of tribal violence, people believe they are doing good for their own group.

So compassion needs be contextualized against human suffering that arises from the evolutionary process itself (Gilbert, 2009). Without this contextualization, compassion risks being seen as simply trying to be kind or nice to ourselves and each other or ascending to some angelic state of mind in an attempt to rid ourselves of the darker potentials of our nature. In reality, compassion has to be able to move down (descend) into the real pain and tragedies of life and suffering; to take on our rage and our pain and the way we experience the realities of being short lived, disease prone biological life forms; and grapple with the serious problems that the human brain can hand us (Gilbert & Choden, 2013). Genuine compassion means seeing into the tragedy of humanity and the struggles of life-flow; recognizing that we have evolved bodies and brains that are full of conflicting motivational systems and social mentalities, easily hijacked by our social contexts and intelligence for good or bad. The scientific understanding of what promotes the good in us and how to help it spread is the new focus for compassion.

Short Biography

Paul Gilbert FBPsS PhD, OBE is Professor of Clinical Psychology at the University of Derby and Consultant Clinical Psychologist at the Derbyshire Health Care Foundation Trust. He has researched evolutionary approaches to psychopathology for over 35 years with a special focus on shame and the treatment of shame based difficulties – for which compassion focused therapy was developed. In 2003, he was president of the BABCP and a member of the first British Governments' NICE depression guidelines for depression. He has written/edited 20 books and over 150 papers. In 2006, he established the Compassionate Mind Foundation charity with the mission statement *To promote wellbeing through the scientific understanding and application of compassion* (www.compassionatemind.co.uk). He was awarded an OBE in March 2011.

Note

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