

## Forgiveness: Definitions, Perspectives, Contexts and Correlates

Lijo KJ\*

Department of Psychology, Rajagiri College of Social Sciences, Cochin, Kerala, India

\*Corresponding author: Kochakadan Joy Lijo, Department of Psychology, Rajagiri College of Social Sciences, Cochin, Kerala, India, Tel: + 91-9539508315; E-mail: lijosjoy86@gmail.com

Received date: January 17, 2018; Accepted date: June 13, 2018; Published date: June 20, 2018

Copyright: ©2018 Kochakadan Joy Lijo. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

### Abstract

In social science, synthesis of literature is also an essential activity which informs the scholars and researchers about the recent developments related to constructs. The present review article discusses the issues related to forgiveness (and unforgiveness) with respect to definition, perspectives, contexts, and correlates. This review tries to enumerate the struggle of the concept-forgiveness to get a shape; contextual relevance and to find its associates. This theoretical exploration will help researchers and practitioners to posit and address the concept forgiveness with its full essence.

**Keywords:** Forgiveness; Unforgiveness

### Introduction

People adopt a variety of responses in the face of interpersonal transgressions such as active or passive retaliation, holding grudges, and denying the seriousness of the offense. It is likely that the unforgiving responses to wrongdoer are the habitual tendencies. The negative reaction to wrongdoer and resistance to forgive are learned as part of survival need or power need of human beings. But the human being has the humane capacity to overcome this 'habitual barrier' through compassion and forgiveness. From the humanistic angle, letting go or forgiveness is a quality of growth seeking individual. In other words, human beings have the capacity to choose forgiveness, instead of the negative reaction to the wrongdoer. This is how the earth has survived so far [1]. Major religions like Christianity, Judaism, Islam, Buddhism, and Hinduism have celebrated the virtue-forgiveness saying 'committing mistakes is the natural and humane, but forgiving is divine' [2]. Scholars in behavioral science have identified the personal and interpersonal benefits of forgiveness and the cognitive, emotional, motivational, and social dimensions of forgiveness. The present article has four sections namely; definitions, theories, contexts, and correlates of forgiveness.

### Defining Forgiveness

Defining forgiveness has importance ranging from finding out the antecedence/predictors to recommending the method of intervention and application of intervention strategies. Scholars have tried to refine the definition of forgiveness based on their conceptual and empirical works. There are broadly two approaches. The first approach tried to differentiate forgiveness from unforgiving actions and outcomes, and the second approach tried to explain the processes and outcome of forgiveness.

Walrond-Skinner [3] has proposed a topology of seven types of forgiveness. They are

- Premature instantaneous forgiveness: An unauthentic form of forgiveness indicated by denying or forgetting the transgression;

- Arrested forgiveness: The forgiveness is denied between the victim and wrongdoer;
- Conditional forgiveness: The acceptance of forgiveness under some conditions like apology, acceptance, and change in unacceptable behavior;
- Pseudo or mutual forgiveness: The process in which immature forgiveness is given or accepted in the necessity to restore the pre-conflict relation;
- Collusive forgiveness: The process of avoiding conflict or opposition even when there is an unsolved severe injustice;
- Repetitious forgiveness: The successive, but incomplete attempts to stop relational transgression; and
- Authentic process forgiveness: The unconditional, self-regarding, altruistic, pro-social motive to avoid revenge for the good of self and the offender.

Enright and Coyle [4] have differentiated some concepts from forgiveness that are found to be similar to forgiveness. They are pardoning, condoning, excusing, forgetting, and denial. Enright, Santos, and Al-Mabuk [5] had proposed six types of forgiveness. They are:

1. Revengeful forgiveness: Forgiveness after revenge;
2. Restitutive forgiveness: To relieve guilt after restoring the relationship;
3. Exceptional forgiveness: Granted under social pressure;
4. Lawful Exceptional forgiveness; granted after considering a moral code or Authority;
5. Forgiveness for Social harmony: Granted to reduce the established social harmony and Peace;
6. Forgiveness as an act and expression of unconditional love.

The above (first) approach addresses more about what are various types of forgiveness and non-forgiveness and their motives. The proceeding section (second) approach defines forgiveness in terms of what are the dynamics happening in both forgiver and wrongdoer and what are the motives and outcome of the dynamics.

Thompson et al. [6] define forgiveness as freeing from a negative attachment to the source that has transgressed against a person. Enright and colleagues [7] defined forgiveness as one's "willingness to abandon one's right to resentment, negative judgment and indifferent behavior toward one who unjustly hurt us, while fostering the undesired qualities of compassion, generosity, and even love toward him or her". In the view of McCullough [8], forgiveness is a pro-social motivation, which is expressed through the decreased desire to avoid the transgressing person and to harm or seek revenge toward that individual and increased desire to act positively toward the same person. Finally, the more refined definitions of forgiveness include two aspects absence of negative emotion and presence of positive emotion towards the offender [9]. Forgiveness also includes the expression of altruism and moral response from a victim that seeks to overcome injustice with goodness. In forgiveness, a pro-social change happens to the victim's thought, emotions and behavior towards a wrongdoer.

## Theories of Forgiveness

According to McCullough [10] forgiveness is a set of motivational changes where an individual becomes decreasingly motivated to take revenge against an offender; decreasingly motivated to avoid the offender, and increasingly motivated by goodwill for, and a desire to reconcile with the offender, despite the offender's harmful actions. Before him, there are scholars proposed theories on forgiveness. There are three different perspectives on forgiveness which include family therapy perspective, psychodynamic perspective, and cognitive perspective.

In family life, forgiveness has an important role in maintaining independence and relationships among family members. It was Hargrave [11] who proposed a theory of forgiveness for family therapy. The core of this theory is relational ethics. He conceptualizes that the process of forgiveness is through exoneration and behavior. They empower the one who victimized injustice to take responsibility from one who caused hurt. In exoneration, there are two things- insight and understanding. Insight allows one to recognize and alter the destructive pattern of thought and behavior. Understanding allows the acceptance of limitation of wrongdoer without removing the responsibility. Granting forgiveness (Behaviour) has two stages. They are the opportunity for compensation which is the chance to compensate for the damage happened due to the offender and an overt act which includes open discussion wrongdoer about the mistake and restoring the relationship.

Under psychodynamic tradition Kaufman [12] and Todd [13] have explained forgiveness. Kaufman [12] connected forgiveness with courage. According to him, rage occurs when an individual's freedom for desire and action is restricted. Forgiveness helps an individual to accept themselves beyond the restriction and resulted failures in personal and interpersonal contexts. Todd [13] explained self-forgiveness and forgiveness to others as an archetypal experience under the Jungian system. Self-forgiveness and forgiveness to others is an integration of archetypal theme one's 'shadow' into transcending self. According to him, forgiveness is used as a reparative instrument to confront and be relieved of guilt. In the application part of this theory, the therapist plays the role of the priest who hears confession and pronounces freedom from all injuries and guilt. Forgiveness is a mechanism to confront and get rid of guilt.

Enright, Santos, and Al-Mabuk [5] have explained forgiveness through a cognitive paradigm. For that, they distinguished justice

morality and forgiveness morality. Justice morality represents providing one's due, equity and fairness. But forgiveness morality means, though knowing the right to revenge, one forgoes the right for taking revenge. Here to get compassion is not the right of a wrongdoer, but it is a gift given by the victim of transgression. The cognitive framework of forgiveness is expanded using logotherapy by Gassin and Enright [14]. They proposed that forgiveness and existential meaning promote positive psychological adjustment. Finding meaning in forgiveness follows the acceptance of pain.

## Contexts of Forgiveness

There are three contexts for forgiveness. They are (1) forgiving to another person, (2) forgiving to oneself, and (3) forgiveness to situation or circumstance.

Forgiveness to another person is the most discussed context in which relationship between two or more than two individual is affected due to verbal, behavioral, emotional or perceived transgression. There are models explaining how does forgiveness occur on these occasions. In the case of interpersonal transgressions like breaking the trust of life partner, friend or some important family member, Gordon, et al. [15] have proposed a forgiveness model. According to this model, the first step is promoting a non-distorted, realistic appraisal of the relationship between the two people. The second step is to encourage them to break the bond of their ruminative affect towards the offender. The final step is to assist the victim to remove or lessen his/her desire to punish the transgressing friend or partner. Worthington [16] proposed another method called REACH (Recall, Empathy, Altruism, Commit and Hold) for helping couples or partners. The steps are recalling offense, promote empathy between the victim and wrongdoer, offer forgiveness as an altruistic gift to each other, open verbal commitment to forgive, and hold on forgiveness.

There are factors which facilitate interpersonal forgiveness. They are nature of relationship perceived relationship value and intensity of victimization. Forgiveness is a cognitive mechanism of human beings developed in the process of natural selection and it is very essential for humans to restore valuable social relationships. Perceived relationship value plays a role in forgiveness [17]. Relationship value and risk for future exploitation were found to be the predictors of forgiveness. Forgiveness was highly predictable when high relationship value and low risk of future exploitation were combined in the prediction. Attachment pattern was associated with are. Secure attachment pattern can predict dispositional forgiveness and reduces rumination [18]. Always the nature of relationship plays an important role, between parent and child, the forgiveness is unconditional, easy and immediate compared to other types of relationships. So closeness/nature of blood relationship is a good predictor. Another factor is the intensity of mistakes committed and the impact of the offense. If the offense is small in its impact, forgiveness is behavior granted.

Forgiving to oneself is the most effortful form of forgiveness. In some occasions, individuals feel anger to oneself when any of their behavior- verbal or nonverbal, leads to any significant self-defeat or non-correctable consequences. Self-forgiveness is defined as a process of releasing resentment towards oneself for a perceived transgression or wrongdoing [19]. Hall and Fincham [1] said that it is more difficult to live without self-forgiveness than without forgiving to others. The reason is that lack of self-forgiveness damages the person himself leading to depression and suicide and not forgiving others will only affect the external positive interaction and adaptation. When the self of

an individual is viewed as powerless and worthless, the shame and guilt will dominate the situation and create the situation that 'I did a bad thing' and 'I am a bad person'. If shame is dominating the feeling will be that 'I am a bad person. If guilt is dominating the feeling will be that 'I did a bad thing'. Here, dealing with shame is more difficult than guilt because shame is a generalized view than guilt [20].

Interventions for self-forgiveness help individuals to analyze the events without bias; accept the role of internal-external agencies and let the hard feelings go without harming the self and psychological wellness. Forgiveness practitioners actually help clients to understand how their self-absorbed thoughts and feelings interfere with positive living [21]. There are self-compassion techniques which help one to accept imperfections and mistakes and direct compassion towards oneself. Some of them are Compassionate Mind Training (CMT), Mindful Self-Compassion (MSC; [22]) and Loving-kindness Meditation.

Forgiveness is not only applied to individuals but also for situations including natural disasters like earthquake, tornado, flooding or disasters in personal life like the death of important people or chronic illness. These situations make people angry and hopeless. Unforgiveness towards such situations make an individual hopeless and gradually develop a negative attitude towards outside world. A good example is for is having unforgiveness towards God. The unforgiveness towards God was associated with negative emotions and difficulty in experiencing forgiving by God led to anxiety and mood disorders. And the feeling of not forgiven by God was found to be an emotional problem [23].

## Correlates of Forgiveness

Forgiveness is one among several warmth-based virtues. Its avoidance or acceptance has physical, psychological, social and spiritual impacts. Forgiveness leads to physical and psychological health through improved positive mood and interpersonal relationships [24]. When one is not forgiving he/she might experience negative emotions such as resentment, bitterness, hatred, hostility, residual anger, and fear. This may lead to individual and social dysfunctioning and psychological discomfort.

The absence of forgiveness contribute to psychological tension and may reduce the levels of psychological well-being. Failure to forgive others to whom one feels a strong commitment elicited reduced levels of life satisfaction and self-esteem as well as higher levels of other negative effects [25]. A study of a large sample of 324 undergraduate students by Maltby et al. [26] reported that failure to forgive oneself led/related to experience neuroticism, depression, and anxiety; and failure to forgive others leads to social introversion among men (low extraversion scores) and social-pathology among women (social dysfunction, psychoticism). There are studies which reported that the difficulty to forgive is related to schizophrenia and PTSD [26-29].

Researchers have reported that forgiveness is the replacement of negative unforgiving emotions with positive emotions, positive affect, self-esteem, and it fosters compassion and positive responses to the offender [30,31]. Forgiving to oneself and others are positively related to life satisfaction and negatively related to psychological distress [32]. Forgiveness is also likely to promote mental health indirectly through social support, interpersonal functioning, and health behavior [33].

Forgiveness has found to be positively correlated with individual's resilience. There are studies reporting the relationship between

forgiveness and resilience in addition to other positive effects [30]. Forgiveness makes a smooth pathway for resilient individuals. A study investigated the relationship between resilience, forgiveness and anger expression using a sample of 70 adolescents. The findings showed that significant relationships exist between several forms of adolescent resilience and forgiveness as well as between some forms of adolescent resilience and anger expression. The findings imply that the constructs of adolescent resilience and forgiveness have commonalities that can influence how adolescents express anger [34]. Studies conducted in India among graduate students and adolescents have found that compared to the absence of negative feeling towards wrongdoer, the presence positive feeling toward the wrongdoer is significantly correlated resilience and grit [35,36].

Forgiveness is not only a positive indicator of mental health but also of physiological health. A study has found that unforgiving thoughts not only lead to negative emotional experiences, and but also make negative physiological effects like higher corrugator (brow) electromyogram (EMG), skin conductance, heart rate, and blood pressure changes. The forgiving thoughts enhance perceived control and lower physiological stress responses in individuals. The findings also revealed that chronic unforgiving responses may erode health whereas forgiving responses may enhance it [37].

Studies have found out that among patients with terminal illness forgiveness helps them to adjust to their conditions. Another among 81 women treated for breast cancer revealed that self-forgiving attitude and spirituality can negatively predict mood disturbance and positively predict the quality of life [38,39]. Forgiveness and health are involved in both direct and indirect relationships. Forgiveness forbids revenge and encourages strong positive love-based emotions. Forgiveness also involves a variety of physiological processes. The physiological changes involved in forgiveness are likely to contribute to a direct effect on mental health and well-being of the individual.

A survey of a very large sample of 2616 female and male twins reports that forgiveness reduces the risk of externalizing disorders such as nicotine dependence, alcohol dependence, drug abuse or dependence, and adult antisocial behavior. Unrevengefulness reduces the risk for internalizing disorders such as major depression, generalized anxiety disorder, phobia, panic disorder, and bulimia nervosa [40]. Another study examined the relationship between forgiveness and a variety of immunological, psychophysiological and other physiological conditions in a sample of 68 adults. The findings showed that higher level of forgiveness is an indicator of healthy habits like less smoking, lower anxiety, lower anger, lower depression, and more task coping. People with higher levels of forgiveness had lower hematocrit levels, lower white blood cell counts, and higher TX PA levels. Lower forgiveness levels were found to be related to higher T-helper/cytotoxic cell ratios [41].

There are certain personality traits correlated with forgiveness. The empirical finding has pointed out that people inclined to forgive others tended to be more agreeable, emotionally stable, spiritual and religious compared to people who are not inclined to forgive offenders.

A series of studies involving large samples of undergraduate students showed that forgiveness was positively correlated with positive and pro-social traits like agreeableness, empathic concern, extraversion and perspective taking, and negatively with neuroticism, trait anger, hostility, depression, and fear. Another notable finding was a strong negative association between forgiveness and the tendency to ruminate vengefully [30].

A study by Maltby and Day [42] reported that forgiveness is negatively associated with a neurotic defense style [42]. Another study among a sample of 320 subjects reported that measures such as forgiveness of self, others, the likelihood, the presence of positive forgiveness, and the absence of negative forgiveness were negatively related to neuroticism-coping factor and the presence of positive feeling towards wrongdoer related to extraversion-coping factor. These findings imply that forgiveness predicts personality-coping factors. And they in turn determine the mental health quality [42].

The findings of another study revealed that when the victim perceived their transgressors as highly agreeable, they had the level of cortisol lowered and forgiveness behavior increased. At the same time, the agreeableness and neuroticism of the victims found less association with their cortisol level and forgiveness [43].

There are studies which examined the relationship between age and gender with forgiveness. A survey of 1,423 respondents focused on age differences in levels of multiple forms of forgiveness. The middle-aged and elders showed higher levels of these forms of forgiveness than young adults since forgiveness is a good predictor of mental and physical health [32]. Gender differences in levels of empathy and forgiveness have been investigated. The findings revealed that women compared to men were more empathetic. No gender difference existed in the case of forgiveness. Among men, forgiveness was influenced by the feeling of empathy [44].

## Conclusion

Psychology—the science of wellness did not give much importance to the personal strengths of forgiveness and gratitude. It happened because the field mental health was busy in dealing with illness and ignored them with the populist notion that they both are the diplomatic personal attributes which will help an individual to survive or avoid adversities or problems. It was Positive Psychology which advocated that forgiveness and gratitude are the best examples of human creativity and intelligence and humane attributes with personal, interpersonal and spiritual benefits. Thanks to positive psychology for highlighting forgiveness as mental health predictor otherwise the strength Forgiveness would have taken much time to the forefront of mental health science. The present article did nothing but a consolidation of philosophical and empirical support of the strength of Forgiveness, with the aim of creating a background for further exploration by researchers and application by practitioners.

## References

- Hall JH, Fincham FD (2005) Self-forgiveness: The stepchild of forgiveness research. *J Soc Clin Psychol* 24: 621-637.
- Lopez FG (2009) Adult attachment security: The relational scaffolding of positive psychology. In: C.R. Snyder & S. J. Lopez (Eds.), *Oxford handbook of positive psychology*. Oxford University Press, New York.
- Walrond-Skinner S (1998) The function and role of forgiveness in working with couples and families: Clearing the ground. *J Fam Ther* 20: 3-19.
- Enright RD, Coyle CT (1998) Researching the process model of forgiveness within psychological interventions. In: EL Worthington Jr. (Edr.), *Dimensions of forgiveness: Psychological research and theological perspectives*. Templeton Foundation Press, Philadelphia.
- Enright RD, Santos MJ, Al-Mabuk R (1989) The adolescent as forgiver. *J Adolesc* 12: 95-110.
- Thompson LY, Snyder CR, Hoffman L, Michael ST, Rasmussen HN, et al. (2005) Dispositional forgiveness of self, others, and situations. *J Pers* 73: 313-360.
- Enright RD, Freedman S, Rique J (1998) The psychology of interpersonal forgiveness. In: R.D. Enright & J. North (Eds.), *Exploring forgiveness*. University of Wisconsin Press, Madison, WI.
- McCullough ME (2000) Forgiveness as human strength: Theory, measurement, and links to well-being. *J Soc Clin Psychol* 19: 43-55.
- Rye MS, Loiacono DM, Folck CD, Olszewski BT, Heinm TA, et al. (2001) Evaluation of the psychometric properties of two forgiveness scales. *Current Psychology* 20: 260-277.
- McCullough ME (2008) *Beyond revenge: The evolution of the forgiveness instinct*. Jossey-Bass, New York, NY.
- Hargrave TD (1994) *Families and forgiveness: Healing wounds in the intergenerational family*. Brunner/Mazel, New York.
- Kaufman ME (1984) The courage to forgive. *Isr J Psychiatry Relat Sci* 21: 177-187.
- Todd E (1985) The value of confession and forgiveness according to Jung. *J Relig Health* 24: 39-48.
- Gassin EA, Enright RD (1995) The will to meaning in the process of forgiveness. *J Psychol* 14: 38-49.
- Gordon KC, Baucom DH, Snyder DK (2004) An integrative intervention for promoting recovery from extramarital affairs. *J Marital Fam Ther* 30: 213-232.
- Worthington EL (1998) An empathy-humility-commitment model of forgiveness applied within family dyads. *J Fam Ther* 20: 59-76.
- McCullough ME, Kurzban R, Tabak BA (2010) Evolved mechanisms for revenge and forgiveness. In: P.R. Shaver & M. Mikulincer (Eds.), *Understanding and reducing aggression, violence, and their consequences*. American Psychological Association, Washington, DC.
- Burnette JL, Taylor KW, Worthington EL, Forsyth DR (2007) Attachment and trait forgiveness: The mediating role of angry rumination. *Pers Individ Dif* 42: 1585-1596.
- DeShea L, Wahkinney RL (2003) Looking within: Self-forgiveness as a new research Direction. Paper presented at the International Campaign for Forgiveness Conference, Atlanta, GA.
- Tangney JP, Boone AL, Dearing R (2005) Forgiving the self: Conceptual issues and empirical findings. In: E.L. Worthington (Edr.), *Handbook of forgiveness*. Routledge, New York.
- Snyder CR, Lopez SJ, Pedrotti JB (2011) *Positive psychology: The scientific and practical explorations of human strengths*. Sage publications, India.
- Neff KD, Germer CK (2012) A Pilot Study and Randomized Controlled Trial of the Mindful Self-Compassion Program. *J Clin Psychol* 69: 28-44.
- Exline JJ, Yali AM, Lobel M (1999) When God disappoints: Difficulty forgiving God and its role in negative emotion. *J Health Psychol* 4: 365-379.
- Berry JW, Worthington EL (2001) Forgiveness, relationship quality, stress while imagining relationship events, and physical and mental health. *J Couns Psychol* 48: 447-455.
- Karremans JC, Van Lange PA, Ouwkerk JW, Kluwer ES (2003) When forgiving enhances psychological well-being: The role of interpersonal commitment. *J Pers Soc Psychol* 84: 1011-1026.
- Maltby J, Macaskill A, Day L (2001) Failure to forgive self and others: A replication and extension of the relationship between forgiveness, personality, social desirability and general health. *Pers Individ Dif* 30: 881-885.
- Brown RP (2003) Measuring individual differences in the tendency to forgive: Construct validity and links with depression. *Pers Soc Psychol Bull* 29: 759-771.
- Mauger PA, Perry JE, Freeman T, Grove DC, McBride AG, et al. (1992) The measurement of forgiveness: Preliminary research. *J Psychol Christian* 11: 170-180.

29. Witvliet CV, Phipps KA, Feldman ME, Beckham JC (2004) Posttraumatic mental and physical health correlates of forgiveness and religious coping in military veterans. *J Trauma Stress* 17: 269-273.
30. Berry JW, Worthington EL, O'Connor LE, Parrott L, Wade NG (2005) Forgiveness, vengeful rumination, and affective traits. *J Pers* 73: 183-225.
31. Enright MS, Conyers LM, Szymanski EM (1996) Career and career-related educational concerns of college students with disabilities. *J Couns Dev* 75: 103-114.
32. Toussaint LL, Williams DR, Musick MA, Everson SA (2001) Forgiveness and health: Age differences in a U. S. probability sample. *J Adult Dev* 8: 249-257.
33. Temoshok LR, Chandra PS (2000) The meaning of forgiveness in a specific situational and cultural context: Persons living with HIV/AIDS in India. In: M. E. McCullough, K. I. Pargament, & C. E. Thoresen (Eds.), *Forgiveness: Theory, research, and practice*. The Guilford Press, New York.
34. Anderson MA (2006) The relationship among resilience, forgiveness, and anger expression in adolescents. *Electronic Theses and Dissertations*.
35. Annalakshmi N, Lijo KJ (2016) The recent trends in psychology: Relationship between resilience, gender and forgiveness among older adolescent students. *Garuda Publications, Coimbatore, Tamil Nadu*.
36. Lijo KJ, Annalakshmi N (2017) Promoting resilience among institutionalized Adolescents through fostering probabilistic orientation, forgiveness, and gratitude. *Indian J Health Well* 8: 1551-1560.
37. Witvliet VC, Ludwig TE, Vander Laan KL (2001) Granting forgiveness or harboring grudges: Implications for emotion, physiology, and health. *Psychol Sci* 12: 117-123.
38. Romero R, Espinoza J, Goncalves LF, Kusanovic JP, Friel LA, et al. (2006) Inflammation in preterm and term labour and delivery. *Semin in Fetal Neonatal Med* 11: 317-326.
39. Glinder J, Compas BE (1999) Self-blame attributions in women with newly diagnosed breast cancer: a prospective study of psychological adjustment. *Health Psychol* 18: 475-481.
40. Kendler KS, Liu XQ, Gardner CO, McCullough ME, Larson D, et al. (2003) Dimensions of religiosity and their relationship to lifetime psychiatric and substance use disorders. *Am J Psychiatry* 160: 496-503.
41. Seybold KS, Hill PC, Neumann JK, Chi DS (2001) Physiological and psychological correlates of forgiveness. *J Psychol Christian* 20: 250-259.
42. Maltby J, Day L (2004) Forgiveness and coping style. *J Genet Psychol* 165: 99-109.
43. Tabak BA, McCullough ME (2011) Perceived transgressor agreeableness decreases cortisol response and increases forgiveness following recent interpersonal transgressions. *Biol Psychol* 87: 386-392.
44. Toussaint L, Webb JR (2005) Gender differences in the relationship between empathy and forgiveness. *J Soc Psychol* 145: 673-685.