

COMPASSION, SELF-COMPASSION AND GRATITUDE: A PSYCHOLOGICAL PERSPECTIVE

DOI: 10.54664/BDBG6427

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Abstract: Research on gratitude and its associations with compassion, self-compassion, and gratitude is presented. Both compassion and gratitude relate to sociality, thus their relationship to prosocial behaviour is significant. They are also crucial for developing and maintaining optimal and healthy relationships. Compassion and gratitude share common correlations to well-being, such as a positive association with positive affect and a negative association with depression/anxiety. On the other hand, complex links are documented between self-compassion, gratitude, and prosocial behaviour. Finally, personality traits share common patterns when explored in relation to compassion, self-compassion, and gratitude.

Keywords: compassion, self-compassion, gratitude, well-being, prosocial behaviour.

Introduction

Gratitude is a “universal human attribute” (Emmons & Stern: 848), being widely recognized as value across cultures and spiritual traditions. Gratitude has been classified as a positive emotion by Haidt (2003) because it is accompanied by joy. As such, gratitude includes 2 elements: recognition of a positive outcome for the self and recognition that this positivity is contributed intentionally by a source outside of the self. Gratitude can be viewed as a disposition - tendency for recognizing and responding “with grateful emotion to the roles of other people’s benevolence in the positive experiences and

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outcomes that one obtains” (McCullough, Emmons & Tsang, 2002: 112). The grateful disposition is marked by varied levels of intensity, frequency, span (number of things one feels grateful for) and density of the emotion (number of people one feels grateful for). According to McCullough, Emmons and Tsang (2002: 113) grateful people have an “ability to stretch their attributions” for happiness and positive outcomes to include an extended range of people. A wider understanding of gratitude is proposed by Wood, Froh and Geraghty (2010: 891) and is marked by a generalized tendency “towards noticing and appreciating the positive in the world”

Compassion, gratitude and prosocial behaviour

When it comes to helping or prosocial behaviour, it is important to distinguish among the 3 types of response according to motivation (Penner et al, 1995):

- Altruistic helping – The helper does not have any expectation of reward.
- Reciprocal helping – The helper expects some reward in return.
- Selfish response – The person helps himself “at the expense of the person in need” (Penner et al., 1995).

Both compassion and self-compassion are reported as positively linked to prosocial behaviour (Weng et al, 2016, Sprecher & Fehr, 2005). Respondents who score higher on compassionate love also tend to score higher on helpfulness and volunteerism towards close others, strangers and humanity (Sprecher & Fehr, 2005). Further, self-compassion is also positively linked to prosocial behaviour (Neff, 2003a; Lindsay and Creswell, 2014).

Gratitude is considered a moral emotion (McCullough, Emmons & Tsang, 2002) because it carries moral consequences. Gratitude is also “empathic emotion” (Lazarus & Lazarus, 1994 – cited in McCullough, Emmons & Tsang, 2002) because it requires the ability to acknowledge the benevolence of other’s action or inaction. Feeling grateful to another person leads to acknowledgement of people’s connectedness and interdependence, which enables empathy. People

who have lower ability to empathize also have difficulty in experiencing gratitude (Worthen & Isakson, 2007), whereas people high on empathy exhibit high potential for gratitude. The mechanism by which gratitude and empathy mutually reinforce each is suggested by Batson (1998), whereby expression of gratitude by recipients of help is linked to increase in empathy in the benefactors and is likely to trigger more acts of helping. By this mechanism, gratitude, rooted in empathy and coupled with prosocial acts would result in compassion.

McCullough, Emmons and Tsang (2002) report that people with higher levels of gratitude are also more empathetic, both in terms of empathic concern ($r=.28^{**1}$) and perspective taking ($r=0.32^{**}$). The correlation is present not only for self-reports but for informants as well. In addition, more grateful people provided more specific help in terms of favors, volunteering time and resources. A positive link between empathy and gratitude is reported by Fujiwara et al (2014). An interesting study is reported by Lazarus & Lazarus (1994), in which the gratefulness of children towards police officers and firefighters was rooted in the empathy shared with the beneficiaries of their services. Thus, evidence suggests that empathy is a necessary condition for genuine gratitude. Further, it is important to distinguish between gratitude and indebtedness. Indebtedness is more in line with the social norm to reciprocate (Bartlett & DeSteno, 2006).

Less research exists on the direct relationship between gratitude and compassion. In a study of 200 undergraduate students Kim, Wang and Hill (2018) report that gratitude was positively linked to compassionate love ($r=0.41$). The above relationship was mediated by empathy, with cognitive empathy being the most significant component. Another study by Krause and Hayward (2015) reports that by exhibiting compassion people are more inclined to help others and thus derive meaning in life. This reinforced sense of meaning is directly related to gratitude.

Gratitude has been found to encourage prosocial action. A study by Algoe, Haidt and Cable (2016) found that expressing grati-

¹ * - $p<0.05$, ** - $p<0.01$

tude contributed to improvement in relationship quality. In a study by McCullough, Emmons and Tsang (2002), grateful respondents were rated by their peers as willing to help, forgiving and providing support (in terms of being generous with time and resources, doing favors and being unselfish).

Bartlett and DeSteno (2006) report that gratitude has a causal link to prosocial behaviour, despite the cost associated with it and beyond reciprocity norms. They conducted a lab experiment with gratitude and amusement induction, in order to distinguish the influence of gratitude from a general positive state. The participants under the gratitude induction clearly demonstrated more willingness to help their benefactor, even when it involved a cost (associated with more time). The increase in willingness to help was reported equally towards benefactors and towards strangers, thus ruling out the explanation for reciprocity norm. The fact that reciprocity would not be relevant in the case of strangers necessitates considering other alternative explanations, namely the memory of help that benefactors received from others in the past. Interestingly, participants who were induced only to experiencing a happy affective state did not show increase in prosocial behaviour (Bartlett & DeSteno, 2006). At the same time, the long-term effects on gratitude remain to be explored in more detail.

Gratitude stems from actions of benefactors that improve one's well-being and can motivate prosocial behaviour in turn. That is why McCullough, Kilpatrick, Emmons and Larson (2001) suggest that gratitude is "prosocial affect". Prosocial behavior is voluntary and intentional, resulting in benefits for another person (Eisenberg & Miller, 1987). A growing body of research reviewed by Eisenberg and Miller (1987) confirms the positive link between empathy and prosocial or altruistic behaviour. According to Batson and Shaw (1991) one needs to investigate the issue of motivation in order to fully understand prosocial behaviour. The motivation to increase another's welfare is the main determinant of prosocial behavior.

A meta-analysis by Ma et al (2017) reports positive link between gratitude and prosocial behaviour (2017) with $r=0.37$. Froh,

Bono and Emmons (2010) report on a longitudinal study with adolescents that gratitude predicted development of prosocial behavior. Other research reports a reciprocal relationship between gratitude and prosocial behaviour (Bono et al, 2017). Research by Grant et al (2008) concluded that gratitude towards the organization for facilitating giving and asserting employees' prosocial identity was at the root of affective organizational commitment.

Froh, Bono and Emmons (2010) report on a positive correlation between gratitude at T1 and prosocial behaviour at T2 in adolescents ($r=0.3$). Thus, gratitude goes beyond just saying “thanks” according to social norms and manners as it inspires the desire to give back to others what one has received.

Compassion, gratitude and well-being

Gratitude and compassion share common correlates such as well-being (Holt-Lunstad & Smith, 2012). Compassion has been found to exert positive influence on individual well-being. For example, Klimecki, Leiberg, Ricard, and Singer (2013) report that compassion training can decrease negative affect resulting from empathic distress and increase positive affect. Providing compassionate help (in terms of telephone support to others) showed significant improvements in various well-being indicators over a 2-year period (Schwartz & Sendor, 1999). Mongrain, Chin and Shapira (2011) report increase in self-esteem and subjective happiness for participants in a study who were asked to perform daily acts of compassion for 5-15 minutes over 6 months. An example of acting compassionately was “talking to a homeless person” (Mongrain et al., 2011). Jazaieri et al. (2014) also report that as a result of a 9-week compassion cultivation training the levels of happiness of participants compared to a control group increased, while at the same time perceived stress levels remained unchanged. Thus, compassion to others was associated with benefits to the self.

In several studies by McCullough, Emmons and Tsang (2002) there was a positive relationship between grateful disposition and positive affect ($r=.53^{**}$) /life satisfaction ($r=0.53^{**}$). At the same

time, negative correlation was reported between the higher levels of gratitude and negative affect/depression and anxiety. Evidence exists that gratitude and appreciation are linked to improvements in parasympathetic myocardial control (McCraty et al., 1995). Duprey et al (2018) report also that gratitude is negatively linked to depression and anxiety and positively linked to mindfulness. Gratitude as a form of positive feedback enables positive emotions and is more prevalent within “higher quality connections” (Dutton & Heaphy, 2003, cited in Lilius, 2012).

The relation between gratitude and well-being is confirmed not just via self-reports, but also by reports of family and friends (McCullough, Emmons & Tsang, 2002) who rated them as happier, more optimistic, helpful and trustworthy. A study by You, Lee, Lee and Kim (2018) reports strong correlations between gratitude and life satisfaction among Korean adolescents ($r=0.71^*-0.73^*$). It also highlights a possible mechanism for the above correlation, namely that the more grateful individuals perceived more social support and had less emotional difficulties, resulting in increased life satisfaction. Another mechanism through which decreased gratitude may be linked to decreased life satisfaction could be unmet psychological needs such as relatedness, competence and autonomy (Tsang et al, 2014). Tsang et al (2014) find 0.47^{**} correlation between gratitude and need satisfaction, whereas in materialism inclined people negative well-being was associated with negative gratitude ($r=-0.24^{**}$).

Meta-analytic studies also show positive associations between dispositional gratitude and well-being (Portocarrero, Gonzales & Ekema-Agbaw, 2020). The dispositional gratitude is positively correlated with all measures of positive well-being such as subjective well-being, psychological well-being (with coefficients in the range 0.40 – 0.48), and negatively correlated with measures of negative well-being such as anxiety, depression, negative affect, suicide ideation, mental disorder, stress (with coefficients in the range -0.42 to -0.27).

The mechanisms through which gratitude leads to improved well-being have been outlined in research. First, grateful individuals

benefit from an increased perception for social support (Wood et al, 2008) which enables them to cope better with difficult situations in daily life. The grateful disposition improves coping with stress by preserving the supply of positive emotions, whereby people stay focused on the benefits in life rather than focusing on the losses Fredrickson, 2004; Emmons & Mishra, 2011). Gratitude also prevents people from engaging in social comparisons, thus sparing them toxic emotions such as anger, envy etc. (Emmons & Mishra, 2011). Finally, the grateful disposition is associated also with heightened self-esteem, spirituality, mindfulness, while lowering striving towards material possessions, improving access to positive memories and leading to improved physical health (Emmons & Mishra, 2011; Wood, Froh & Geraghty, 2010).

Another mechanism through which gratitude results in improved well-being is improved self-regulation. DeSteno, Li, Dickens and Lerner (2014) report that gratitude lowers economic impatience and thus plays a role for inhibiting behaviours aimed at immediate gratification. Delayed gratification is a promising tool for postponing rewards to the future and building long-term goodwill. Unlike gratefully disposed individuals, happy individuals did not reveal more economic patience, thus the effect of gratitude can be distinguished above and beyond the effects of happiness.

Finally, gratitude has been positively linked to positive well-being also among adolescents (Froh, Selfick & Emmons, 2007) and played especially important role for their school experience.

Gratitude also leads to increase in perceived social support, thus serving as a protective factor against depression and stress (Wood et al, 2008). As a protective factor, gratitude also increases compassion satisfaction and protects against compassion fatigue (Chambers, 2023).

Compassion, gratitude and relationships

Compassion and gratitude share a feature that is distinct from other affective states, namely their link to sociality (DeSteno, Condon & Dickens, 2016), as they require interaction with another sentient

being (whether a human, animal, God, etc.). Both gratitude and compassion are significant for building and maintaining healthy relationships.

Reis, Maniaci and Rogge (2014) report that acts of compassion between intimate partners are associated with higher relationship satisfaction in both partners. Crocker and Canevello (2008) explain interesting mechanism relating goals in relationships and perceptions of support. People high in compassionate goals combined with low self-image goals also report increase in perception of available social support. Compassionate goals focus on increasing well-being and reducing harm for another person. People with compassionate goals see relationships as non-zero sum in a sense that gains by another person are not viewed as taking away from another. With self-image goals, the focus becomes one's own self-image and self-interest. Such people view relationships as an instrument to obtain and to improve their own wellbeing. Success achieved by one person is perceived as failure for another (zero sum). Crocker and Canevello (2008) report that more compassionate respondents had higher self-compassion, higher agreeableness and extraversion, whereas students with high self-image goals reported loneliness, conflicts, individualistic caregiving and lower perception of available support.

Since people with compassionate goals are more likely to extend help, the recipients of support feel warmth and compassion to the provider and are more likely to extend help in turn. The provider perceives more available support, which activates an "upward spiral" of further willingness to help. Thus, benefactors are also likely to receive support without having had such intention in the first place (Crocker & Canevello, 2008).

Algoe, Haidt and Gable (2008) report that gratitude experienced by one person predicted how both the benefactor and the receiver perceived the relationship quality. By displaying gratitude one draws the attention of the partner and becomes increasingly perceived as responsive to his needs, mainly via the "other-praising feature of gratitude" (Algoe, Kurtz & Hilaire, 2016:662). This greater percep-

tion of responsiveness brings about more love and relationship satisfaction (Algoe, Kurtz & Hilaire, 2016), which can precipitate a cycle of gratitude and compassion.

Froh, Bono and Emmons (2010) conducted a longitudinal study with adolescents, in which gratitude predicted social integration 6 months later, with prosocial behaviour and life satisfaction mediating the relationship. The improved social integration on the other hand predicted a further increase in gratitude, i.e. spiral effect was present.

Self-compassion and gratitude

Neff (2003a) defines self-compassion as compassion with the specific object of compassion being the Self. More specifically, self-compassion comprises three elements, which “interact so as to mutually enhance and engender one another” (Neff, 2003b) and from that point of view can also be seen as “emotion regulation strategy” (Neff, 2003b). The three elements are: a) self-kindness; b) common humanity; c) mindfulness.

Existing research confirms a positive association between self-compassion and psychological well-being. Neff (2003b) reports a positive link between self-compassion and life satisfaction, emotional intelligence and social connectedness. Self-compassion is also linked positively with optimism and happiness (Neff, 2003b; Neff, Rude & Kirkpatrick, 2007). At the same time, self-compassion is inversely correlated with various symptoms of psychopathology (Neff, 2003b; Neff, Kirkpatrick & Rude, 2007). A meta-analysis of 14 relevant studies by Macbeth and Gumley (2012) reported that higher self-compassion is associated with lower depression, anxiety and stress. The effect of the relationship is large and estimated at $r=-0.54$ (Macbeth & Gumley, 2012). The mechanism through which self-compassion contributes to improved mental health is through a healthier relationship to the Self (Neff, 2003a; Neff, 2003b).

Self-compassion acts as a protecting factor against compassion fatigue and burnout (Dorian & Killebrew, 2014) and softens negative reactions to negative life events – real, hypothetical and experimentally induced (Leary et al., 2007). One reason for self-compassion

serving as a protecting factor against negative life events and burnout is the lower tendency to ruminate and be self-critical in self-compassionate people (Raes, 2010; Neff, 2003a). In situations evoking unpleasant emotions, self-compassionate individuals retain a better coping ability by keeping perspective and avoiding overidentification (Neff, Kirkpatrick & Rude, 2007; Leary et al., 2007), rendering self-compassion a powerful tool for preserving integrity of the Self.

In research by Zhang and Li (2021) a link was established between child neglect and decreased life satisfaction among 1091 left-behind children, whose parents went to the big city for work. This relationship between child neglect and life satisfaction was mediated by gratitude and self-compassion, with gratitude and self-compassion predicting higher life satisfaction. Lower self-compassion predicts emotional dysregulation (Reffi, Boykin & Orcutt, 2018), which could explain that the absence of parents for such children is critical for developing self-compassion and gratitude, leading to decrease in well-being.

In a longitudinal study Yang, Kong, Guo and Kou (2021) report that self-compassion in adolescents predicted gratitude and prosocial behaviour. This is in line with research reporting positive relationship between self-compassion and other-focused concern (Neff & Pommier, 2013).

Self-compassion and gratitude are correlated ($r=0.38^{**}$ - Nguyen, 2020). Similarly to self-compassion, gratitude is also an effective regulation strategy (DeSteno, Li, Dickens and Lerner, 2014), which could explain the common correlates that both gratitude and self-compassion share, with either one or the other serving as a mediator. Beni and Latipun (2019) report a positive link between self-compassion and happiness with gratitude as a mediator in a sample of 316 university students. Both self-compassion and gratitude (Jiang, Ren, Zou & You, 2020) predict reduced risk of non-suicidal self-injury among 1026 Chinese adolescents.

Nguyen (2020) demonstrated that self-compassion and gratitude enhance mindful parenting. Liu, Wang and Wu (2020) report that

increased self-compassion is linked to reduced suicide risk in Chinese adolescents and that the relationship was mediated in certain models by gratitude (in addition to PTSD).

Voci, Veneziani and Fuochi (2018) suggest that both self-compassion and gratitude are at the heart of mindfulness and confirm that they play a mediating role in the relationship between mindfulness and psychological well-being.

Associations with other constructs

In a study by Nettle et al (2007) a strong correlation was reported between agreeableness and empathy, as well as between extraversion and empathy. Research by Graziano et al (2007) confirms that agreeableness is the trait most strongly associated with empathy, with $r=0.53$. In a study by Melchers et al. (2016) between 11 and 18% of the individual variance in empathic responding was attributed to the trait agreeableness, followed by conscientiousness, which explained 8% of the variance in empathy. Agreeableness was also supported as predictor of compassion among adolescents (Shiota et al, 2006).

Self-compassion was negatively associated with neuroticism ($r=-0.65$) and positively correlated to extraversion ($r=0.32$), conscientiousness ($r=0.42$) and agreeableness ($r=0.35$) in a study by Neff, Rude and Kirkpatrick (2007).

McCullough, Emmons and Tsang (2002) confirmed a positive link of gratefully disposed people to agreeableness ($r=0.39^{**}$), conscientiousness ($r=0.23^{**}$) and extraversion ($r=0.18^{**}$). A negative correlation was reported between grateful disposition and neuroticism ($r=-0.32^{**}$). All the above correlations account for about 30% of the contribution of the personality traits to the grateful disposition. Even after controlling for the above personality traits associated with gratitude, the correlations to positive affect, life satisfaction and prosociality remain significant.

In a more extended definition gratitude may also be experienced beyond people and attributed to “non-human forces in existential sense” such as Higher power, God, luck etc. (McCullough,

Emmons & Tsang, 114). Grateful respondents were also found to be less materialistically inclined, which is consistent with the grateful disposition as focused more on appreciating the positive things in life and being thankful for what one has rather than striving for additional material acquisitions. McCullough, Emmons and Tsang (2002) report a positive link between gratitude and spirituality, however it is not yet clear whether gratitude may spur spirituality or the reverse.

Conclusion

Compassion, self-compassion and gratitude are all hallmarks of optimal psychological functioning. In addition, they both motivate behaviours aimed at building social capital and wellbeing in the long-run (Bartlett & DeSteno, 2006; DeSteno, Condon & Dickens, 2016). Both compassion and gratitude have impact not only on the person expressing them, but also on the other side in the social interaction. Compassion motivates people to offer help to reduce suffering. Gratitude motivates individuals to pay back an act of kindness and to act prosocially, which confirms to witnesses of gratitude that grateful people are reliable and loyal from a relationship point of view. Finally, both compassion and gratitude have positive associations to well-being.

БИБЛИОГРАФИЯ / BIBLIOGRAPHY

Algoe, S. B., Haidt, J., & Gable, S. L. (2008). Beyond reciprocity: Gratitude and relationships in everyday life. *Emotion*, 8(3), 425-429. <https://doi.org/10.1037/1528-3542.8.3.425>

Algoe, S., Kurtz, L., Hilaire, N. (2016). Putting the “You” in “Thank You”: Examining Other-Praising Behavior as the Active Relational Ingredient in Expressed Gratitude. *Social Psychological and Personality Science*, 7, 7, 658-666.

Bartlett, M., DeSteno, D. (2006). Gratitude and Prosocial Behaviour: Helping when it costs you. *Psychological Science*, 17, 4, 319-325.

Batson, C. D. (1998). Altruism and prosocial behavior. In D. T. Gilbert, S. T. Fiske, & G. Lindzey (Eds.), *The handbook of social psychology* (282–316). New York, NY: McGraw-Hill.

Batson, C., & Shaw, L. (1991). Evidence for altruism: Toward a pluralism of prosocial motives. *Psychological Inquiry*, 2, 107–122.

Beni, L. A. D. S., & Latipun, L. (2019). Correlation self-compassion and happiness among university students in Timor-Leste: Gratitude as moderation variable. *International Journal of Psychological Studies*, 11(2), 1-1.

Bono, G., Froh, J. J., Disabato, D., Blalock, D., McKnight, P., & Bausert, S. (2017). Gratitude's role in adolescent antisocial and prosocial behavior: a 4-year longitudinal investigation. *The Journal of Positive Psychology*, 14(2), 230–243. <https://doi.org/10.1080/17439760.2017.1402078>.

Chambers, R. (2023). Increasing Nurse Leader Compassion Satisfaction Through Gratitude, *Nurse Leader*, 21, 3, 17-21.

Crocker, J., & Canevello, A., (2008). Creating and Undermining Social Support in Communal Relationships: The role of compassionate and self-image goals. *Journal of Personality and Social Psychology*, 95 (3), 555 – 575.

DeSteno, D., Li, Y., Dickens, L., & Lerner, J. S. (2014). Gratitude: A tool for reducing economic impatience. *Psychological Science*, 25(6), 1262-1267.

DeSteno, D., Condon, P., & Dickens, L. (2016). Gratitude and Compassion. In M. Lewis, J. M. Haviland-Jones, & L. Barrett (eds.), *Handbook of Emotions* (4th Edition, 835-846). New York: Guilford Press.

Dorian, M., & Killebrew, J. (2014). A Study of Mindfulness and Self-Care: A Path to Self-Compassion for Female Therapists in Training. *Women & Therapy*, 37:1-2, 155–163.

Duprey, E. B., McKee, L. G., O'Neal, C. W., & Algoe, S. B. (2018). Stressful life events and internalizing symptoms in emerging adults: The roles of mindfulness and gratitude. *Mental Health & Prevention*, 112, 1–9. <https://doi.org/10.1016/j.mhp.2018.08.003>.

Dutton, J. E., & Heaphy, E. (2003). The power of high-quality connections. In K. Cameron, J.E. Dutton and R.E. Quinn, *Positive Organizational Scholarship* (263-278). San Francisco: Berrett-Koehler.

Eisenberg, N., & Miller, P. (1987). The relation of empathy to prosocial and related behaviours. *Psychological Bulletin*, 101 (1), 91-119.

Emmons, R. A., & Mishra, A. (2011). Why gratitude enhances well-being: What we know, what we need to know. In K. M. Sheldon, T. B. Kashdan, & M. F. Steger (Eds.), *Designing positive psychology: Taking stock and moving forward* (248–262). Oxford University Press.

Emmons, R. & Stern, R. (2013). Gratitude as a psychotherapeutic intervention. *Journal of clinical psychology*, 69(8), 846-855.

Fredrickson, B. L. (2004). Gratitude, Like Other Positive Emotions, Broadens and Builds. In R. A. Emmons & M. E. McCullough (Eds.), *The psychology of gratitude* (145–166). Oxford University Press.

Froh, J. J., Selfick, W. J., & Emmons, R. A. (2008). Counting blessings in early adolescents: An experimental study of gratitude and subjective well-being. *Journal of School Psychology*, 46(2), 213–233. <https://doi.org/10.1016/j.jsp.2007.03.005>

Froh, J. J., Bono, G., & Emmons, R. (2010). Being grateful is beyond good manners: gratitude and motivation to contribute to society among early adolescents. *Motivation and Emotion*, 34(2), 144–157. <https://doi.org/10.1007/s11031-010-9163-z>.

Fujiwara, T., Murakami, T., Nishimura, T., Hamaguchi, Y., & Sakurai, S. (2014). Development of an interpersonal gratitude scale for children. *Japanese Journal of Educational Psychology*, 62, 187-196.

Grant, A. M. (2008). Does intrinsic motivation fuel the prosocial fire? Motivational synergy in predicting persistence, performance, and productivity. *Journal of Applied Psychology*, 93: 48–58.

Graziano, WG, Habashi, MM, Sheese, BE, & Tobin, RM. (2007). Agreeableness, Empathy, and Helping: A Person x Situation Perspective. *Journal of Personality and Social Psychology*, 93 (4), 583 – 599.

Haidt, J. (2003). The moral emotions. In R. J. Davidson, K. R. Scherer, & H. H. Goldsmith (Eds.), *Handbook of affective sciences* (852–870). Oxford University Press.

Holt-Lunstad, J., & Smith, T. B. (2012). Social relationships and mortality. *Social and Personality Psychology Compass*, 6, 41–53.

Jazaieri, H., McGonigal, K., Jinpa, T., Doty, J. R., Gross, J. J., & Goldin, P. R. (2014). A randomized controlled trial of compassion cultivation training: effects on mindfulness, affect, and emotion regulation. *Motivation and Emotion*, 38, 23–35.

Jiang, Y., Ren, Y., Zhu, J., & You, J. (2022). Gratitude and hope relate to adolescent nonsuicidal self-injury: Mediation through self-compassion and family and school experiences. *Current Psychology: A*

Journal for Diverse Perspectives on Diverse Psychological Issues, 41(2), 935–942. <https://doi.org/10.1007/s12144-020-00624-4>

Kim, G., Wang, D., Hill, P. (2018). An Investigation into the multifaceted relationship between Gratitude, Empathy and Compassion. *Journal of Positive Psychology and Wellbeing*, 2, 1, 23–44.

Klimecki, O.M., Leiberg, S., Ricard, M., & Singer, T. (2013). Differential pattern of functional brain plasticity after compassion and empathy training. *Social Cognitive and Affective Neuroscience*, 9 (3), 873–879.

Krause, N., & Hayward, R. D. (2015). Humility, compassion, and gratitude to God: Assessing the relationships among key religious virtues. *Psychology of Religion and Spirituality*, 7, 192–204.

Lazarus, R. S., & Lazarus, B. N. (1994). *Passion and reason: Making sense of our emotions*. New York: Oxford University Press.

Leary et al (2007). Self-Compassion and Reactions to Unpleasant Self-Relevant Events: The Implications of Treating Oneself Kindly. *Journal of Personality and Social Psychology*. 92, 5, 887–904.

Lindsay, & E., Creswell, J. (2014). Helping the self helps others: Self-affirmation increases self-compassion and pro-social behaviors. *Frontiers in Psychology*, 5 (9). Available at: DOI.org/10.3389/fpsyg.2014.00421 [Accessed: 12 Oct 2021].

Liu, A., Wang, W., Wu, X. (2020). Understanding the Relation Between Self-Compassion and Suicide Risk Among Adolescents in a Post-disaster Context: Mediating Roles of Gratitude and Posttraumatic Stress Disorder. *Frontiers in Psychology*. 11:1541. doi: 10.3389/fpsyg.2020.01541.

Ma, L. K., Tunney, R. J., & Ferguson, E. (2017). Does gratitude enhance prosociality?: A meta-analytic review. *Psychological Bulletin*, 143(6), 601–635. <https://doi.org/10.1037/bul0000103>

Macbeth, & A., Gumley, A. (2012). Exploring compassion: A meta-analysis of the association between self-compassion and psychopathology. *Clinical Psychology Review*, 32, 545–552.

McCraty, R., Atkinson, M., Tiller, W. A., Rein, G., & Watkins, A. D. (1995). The effects of emotions on short-term power spectrum analysis of heart rate variability. *American Journal of Cardiology*, 76, 1089–1093.

McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin*, 127, 249–266.

McCullough, M. E., Emmons, R. A., & Tsang, J. A. (2002). 'The grateful disposition: A conceptual and empirical topography', *Journal of Personality and Social Psychology*, 82, 112–127.

Melchers, M. C., Li, M., Haas, B. W., Reuter, M., Bischoff, L., & Montag, C. (2016). Similar Personality Patterns Are Associated with Empathy in Four Different Countries. *Frontiers in Psychology*. 7.

Mongrain, M., Chin, J. M., & Shapira, L. B. (2011). Practicing compassion increases happiness and self-esteem. *Journal of Happiness Studies*, 12, 963–981.

Neff, K. (2003a). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and Identity*, 2 (2), 85–101.

Neff, K. (2003b). Development and validation of a scale to measure self-compassion. *Self and Identity*, 2, 3, 223–250.

Neff, K., & Pommier, E. (2013). The Relationship between Self-compassion and Other-focused Concern among College Undergraduates, Community Adults, and Practicing Meditators. *Self and Identity*, 12 (2), 160–176.

Neff, K., Rude, S., & Kirkpatrick, K. (2007). An examination of self-compassion in relation to positive psychological functioning and personality traits. *Journal of Research in Personality*. 41, 908 – 916.

Neff, K. D., Kirkpatrick, K. L., & Rude, S. S. (2007). Self-compassion and adaptive psychological functioning. *Journal of Research in Personality*, 41(1), 139–154. <https://doi.org/10.1016/j.jrp.2006.03.004>

Nettle, D. (2007). Empathizing and systemizing: what are they, and what do they contribute to our understanding of psychological sex differences? *British Journal of Psychology*. 98, 237–255.

Nguyen, T. M., Bui, T. T. H., Xiao, X., & Le, V. H. (2020). The influence of self-compassion on mindful parenting: A mediation model of gratitude. *The Family Journal*, 28(4), 455–462.

Penner, L. et al (1995). Measuring the prosocial personality. In J.N. Butcher & C.D. Spielberger (Eds), *Advances in Personality Assessment*, 10, 147 – 163. Hillsdale, NJ. Erlbaum.

Portocarrero, F. F., Gonzalez, K., & Ekema-Agbaw, M. (2020). A meta-analytic review of the relationship between dispositional gratitude and well-being. *Personality and Individual Differences*, 164, Article 110101. <https://doi.org/10.1016/j.paid.2020.110101>

Raes, F. (2010). Rumination and worry as mediators of the relationship between self-compassion and depression and anxiety. *Personality and Individual Differences*, 48, 757–761.

Reffi, A. N., Boykin, D. M., & Orcutt, H. K. (2019). Examining pathways of childhood maltreatment and emotional dysregulation using self-compassion. *Journal of Aggression, Maltreatment & Trauma*, 28(10), 1269-1285.

Reis, H. T., Maniaci, M. R., & Rogge, R. D. (2014). The expression of compassionate love in everyday compassionate acts. *Journal of Social and Personal Relationships*, 31, 651-676.

Schwartz, C.E., & Sendor M. (1999). Helping others helps oneself: Response shift effects in peer support. *Social Science and Medicine*, 48:1563–75.

Shiota, M. N., Keltner, D., & John, O. P. (2006). Positive emotion dispositions differentially associated with big five personality and attachment style. *The Journal of Positive Psychology*, 1, 61–71.

Sprecher, S., & Fehr, B. (2005). Compassionate love for close others and humanity. *Journal of Social and Personal Relationships*, 22 (5), 629–651.

Tsang, J.-A., Carpenter, T. P., Roberts, J. A., Frisch, M. B., & Carlisle, R. D. (2014). Why are materialists less happy? The role of gratitude and need satisfaction in the relationship between materialism and life satisfaction. *Personality and Individual Differences*, 64, 62–66. <https://doi.org/10.1016/j.paid.2014.02.009>.

Voci, A., Veneziani, C. A., & Fuochi, G. (2019). Relating mindfulness, heartfulness, and psychological well-being: The role of self-compassion and gratitude. *Mindfulness*, 10(2), 339–351. <https://doi.org/10.1007/s12671-018-0978-0>

Weng, H. Y., Fox, A. S., Hesselthaler, H. C., Stodola, D. E., & Davidson, R. J. (2015). The role of compassion in altruistic helping and punishment behavior. *PLoS ONE*, 10, e0143794. <http://dx.doi.org/10.1371/journal.pone.0143794>

Wood, A. M., Maltby, J., Gillett, R., Linley, P. A., & Joseph, S. (2008). The role of gratitude in the development of social support, stress, and depression: Two longitudinal studies. *Journal of Research in Personality*, 42(4), 854–871. <https://doi.org/10.1016/j.jrp.2007.11.003>

Wood, A. M., Froh, J. J., & Geraghty, A. W. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review*, 30(7), 890–905.

Worthen, V. E., & Isakson, R. L. (2007). The therapeutic value of experiencing and expressing gratitude. *Issues in Religion and Psychotherapy*, 31, 33-46.

You, S., Lee, J., Lee, Y., & Kim, E. (2018). Gratitude and life satisfaction in early adolescence: The mediating role of social support and emotional difficulties. *Personality and Individual Differences*, 130, 122–128. <https://doi.org/10.1016/j.paid.2018.04.005>

Yang, Y., Kong, X., Guo, Z., & Kou, Y. (2021). Can self-compassion promote gratitude and prosocial behavior in adolescents? A 3-year longitudinal study from China. *Mindfulness*, 12(6), 1377–1386. <https://doi.org/10.1007/s12671-021-01605-9>

Zhang H, Li Y. (2022). Child Neglect and Life Satisfaction among Left-behind Children in Rural China: The Roles of Self-compassion and Gratitude. *Journal of Interpersonal Violence*, 37(17-18):NP15649-NP15669. doi: 10.1177/08862605211016348.