1. Gratitude is a very popular positive psychology intervention.  In your opinion, what is special about gratitude, compared to other interventions? What is the evidence base that supports gratitude as more effective, compared to kindness, compassion, best possible selves, and the like?  And, most effective for what?  (please consider your own research goals in answering this part of the question).

The question on whether gratitude is different, compared to other positive psychology interventions, is a vitally important one. Looking into the history of the subject, primary interventions of gratitude itself were often compared against a ‘negative’/‘focused on hassles’ control, instead of a neutral activity or a null control. This has been often a source of complaint in researchers looking for results that can hold up to stringent examination, as well as researchers attempting to compare the relative efficacy of studies in a meta-analysis, as a significant improvement compared to a negative comparison means less than compared to other ‘positive interventions’ (Dickens 2017). Indeed, one of the first experimental investigations of Gratitude found significant effects on subjective well being (SWB) for the gratitude intervention, but only in contrast with a ‘negative’ control (Emmons & McCullough 2003). Thus, considering the history of the study of gratitude as a field, evidence that supports gratitude as more effective as compared to other positive psychology interventions (kindness, compassion, best possible selves, etc.) is particularly valuable.

To begin to answer this question, it is first important to acknowledge that while there is strong evidence on what is special about gratitude, compared to other interventions, there is also a reasonable amount of evidence indicating that is not the case. Several meta-analysis on positive psychology interventions as a whole (Boiler, Haverman, Westerhof, Riper, Smit and Bohlmeijer 2013; Sin & Lyubomirsky 2009) have indicated that these interventions are generally effective at improving SWB and reducing depression, but neither meta-analysis investigated the effects of gratitude specifically. One recent meta-analysis of 71 studies on the effect of gratitude specifically, done by Leah Dickens in 2017, looked at results while explicitly accounting for relative control conditions (neutral mindset, negative mindset, positive mindset, etc.). Unsurprisingly, gratitude interventions had greater SWB, life satisfaction, happiness, and less depression when compared against a neutral or negative condition. In contrast, when comparing gratitude to other positive psychology interventions, there was only a modest increase in SWB. Regardless of whether or not gratitude has anything ‘special’ compared to other positive interventions, the meta-analyses indicate that it is much too easy to state the benefits of gratitude when comparing against neutral or negative situations.

In my opinion, the unique value of gratitude as compared to other positive psychology interventions can be framed under two perspectives. The first, is differences in execution and practice, as compared to other positive psychology interventions. For example, one significant ‘edge’ that gratitude exercises have over others is that gratitude can be practiced on your own time, without access to other resources (Dickens 2017). Kindness and compassion-based interventions generally requires other individuals to provide or other individuals to receive. In fact, comparing against Kindness specifically, Kerr and colleagues (2015), were able to experimentally induce an increase in gratitude by having subjects perform gratitude exercises, but were not able to increase kindness with kindness exercises. Both interventions were self-administered over 2 weeks, and the gratitude intervention also improved hedonic well-being. Considering that the briefness of the intervention did not ameliorate effectiveness on gratitude as compared to a kindness intervention, this is more strong evidence that gratitude has a ‘practical’ advantage. Sheldon and Lyubomirsky (2006) highlight another advantage of gratitude as compared to a ‘best possible selves’ intervention, namely that some individuals felt more ‘self concordant motivation’ (SCM) towards one activity and not the other. This is important, as SCM strongly predicted likelihood of practicing either intervention, and the regular practice of the intervention, regardless of which one it was, lead to increases in positive affect (PA) and decreases in negative affect (NA). Given that long term benefits require sustained effort, it is much easier to achieve if the ‘fit’ of the exercise matches with the individual. Thus, gratitude can have a unique benefit insofar as some people have individual difference preferences for activities. For individuals that feel greater SCM when practicing gratitude, they would have greater benefits to increases in PA and reductions in NA as compared to other activities.

The second perspective showcasing the unique benefits of gratitude, as compared to other positive psychology interventions, is greater improvements in physical and mental outcome measures. Watkins, Uhder, and Pichinevskiy (2014) found that gratitude had significantly greater impact on SWB, even when comparing against not just a neutral memory condition, but also a ‘pride based positive recollection’ condition. Furthermore, increases in SWB continued to grow up until and including at the 1 and 5 week follow-ups, with an additional decrease in depression levels at 5 weeks. Seligman, Steen, Park, and Peterson (2005) likewise found that a ‘gratitude visit’, compared to several other positive psychology interventions (best possible selves, signature strengths, etc.) caused the largest changes in magnitude for both measured happiness and decreased depression symptoms. Similarly, Sirosis and Wood (2017) examined whether the construct of gratitude was unique in predicting lower levels of depression for patients with arthritis and chronic irritable bowel disorder (IBD). In theory, the benefits of gratitude could be reflective of a wide range of positive constructs that would be similar in benefit for adjusting to depression. The authors provided a more stringent test of the unique predictive value of gratitude for explaining depressive symptoms in relation to other relevant positive psychology constructs, by adding psychological thriving to their model to determine if the proposed effects of gratitude would hold. For both arthritis and chronic IBD, gratitude predicted lower levels of depression over a 6-month period above and beyond initial levels of depression as well as a large set of demographic, disease-related, and psychological variables known to predict depression, including age, respondent gender, disease duration, self-rated health, illness cognitions, and changes in pain, social support, and perceived stress. While gratitude was moderately associated with psychological thriving, but it still explained significant incremental variance in depression in both samples over and above that explained by the effect of thriving by itself.

Finally, there are some philosophical differences when considering the benefits of gratitude as compared to other positive psychology interventions. McCullough, Kilpatrick, Emmons, and Larson (2001) put forth the concept that one of the unique benefits of gratitude insofar as it can compare to other interventions, is that the actual expression of gratitude in and of itself has interpersonal utility. In the form of a ‘moral barometer’, expressed gratitude provides valuable information that is particularly sensitive to changes in one’s social relationships. Regardless of whether or not the activity that one is grateful for is objectively ‘moral or immoral’, elicited changes in gratitude indicate that whatever has occurred is at least moral in the ‘local’ sense (thought to improve well-being of the recipient), which is valuable information to have in social interaction, perhaps even more so than information on the objective morality of a given behavior. Furthermore, the very concept of gratitude itself has benefits in that it allows for positive framing of negative events (not necessarily possible in a BPS, kindness or compassion based intervention). Research by McAdams, Reynolds, Lewis, and Bowman finds that “redemption sequences” are a distinct narrative style showcasing a transformation from unpleasant circumstance to positive outcome, vital to this are feelings of gratitude (e.g. One sequence was that of an unwanted pregnancy and painful birth resulting in thankfulness and happiness for the pregnancy.) The benefit of gratefulness on helping shape redemptive narratives is unique and valuable.

1. What more basic affective, physiological, or cognitive processes are affected by a person’s resolve to feel, and express, gratitude?  That is, what are the primary mediators of gratitude effects?  Be sure to discuss studies examining mediators in your answers.

There are many basic affective, physiological, and cognitive processes that are affected by a person’s resolve to feel, and express, gratitude. Affective processes that are affected by gratitude include: Openness to positive social interaction and prosocial behavior (McCullough 2001). Physiological processes that are affected by gratitude include: Improvements in sleep quality, improvements in diastolic blood pressure, greater self-reported physical health, and increased volume of exercise (Emmons & McCullough 2003; Jackowska, Brown, Ronaldson, and Steptoe 2015; Hill, Allemand, and Roberts 2013). Cognitive processes that are affected by gratitude include: Recollection of pleasant memories, training of beneficial cognitive biases, self-reported psychological health, propensity for healthy activities, and increased willingness to get help for health concerns.

Looking at studies that specifically held mediational hypothesis, Hill et al., executed a multi-factor study that examined if dispositional gratitude predicted greater physical health, and for what reasons (2013). Hill’s study found that gratitude was positively correlated with physical and psychological health, propensity for healthy activities, and willingness to get help for health concerns. Following the bootstrapping procedure outlined by Preacher and Hayes (2008), the researchers were able to confirm that psychological health fully mediated the relationship, and that each of the other variables were significant mediators as well. Additionally, Hill et al., found that the mediational relationship between gratitude and physical health had significant interaction with the moderator of age. Gratitude has a larger effect on physical health, through psychological health as well as engagement in ‘healthy activities’, as you get older.

Several other studies have looked at mediational hypothesis on the effects of gratitude on subjective well-being (SWB). Liao & Weng (2018), expanding on Fredrickson’s Broaden and Build theory, hypothesized that the important mediators for the relationship between gratitude and SWB would be increased social and cognitive resources. Two of the proposed resources, ‘Social connectedness’ and ‘presence of meaning in life were found to be significant mediators, using Shrout and Bolger’s bootstrapping method. Another study by Toussaint & Friedman (2009), conducted on 72 clinical outpatients in Philadelphia found that Positive Affect and ‘belief in self’ / ‘self worth’ were full or near-full mediators for the effects of gratitude on SWB. On the related metric of life satisfaction, Perez, Peralta, and Besa (2021), studied how gratitude affected life satisfaction through the mediator of ‘spirituality’, on a sample of several hundred religious teens/young adults in the Philippines. Mediational analysis was done using the Hayes bootstrapping method. There was a partial mediation effect of spirituality on life satisfaction.

Finally, Gabana, Steinfeldt, Wong, and Chung (2017) looked at two considerably more domain specific outcomes, whether gratitude was related to athletic burnout or sport satisfaction. This study was done on nearly 300 D1 and D3 college athletes and used the Hayes bootstrapping method to test for mediation. The researchers found that ‘perceived social support’, defined as “One’s potential access to social support and is a support recipient’s subjective judgment that friends, family, team-mates, and coaches would provide assistance if needed” was a strong mediator for the relation between gratitude and both outcome measures.

References

Sirois, F. M., & Wood, A. M. (2017). Gratitude uniquely predicts lower depression in chronic illness populations: A longitudinal study of inflammatory bowel disease and arthritis. *Health Psychology*, *36*(2), 122–132. https://doi.org/10.1037/hea0000436

Watkins, P. C., Uhder, J., & Pichinevskiy, S. (2015). Grateful recounting enhances subjective well-being: The importance of grateful processing. *Journal of Positive Psychology*, *10*(2), 91–98. https://doi.org/10.1080/17439760.2014.927909

Cohn, M. A., Pietrucha, M. E., Saslow, L. R., Hult, J. R., & Moskowitz, J. T. (2014). An online positive affect skills intervention reduces depression in adults with type 2 diabetes. *Journal of Positive Psychology*, *9*(6), 523–534. https://doi.org/10.1080/17439760.2014.920410

Van Cappellen, P., Rice, E. L., Catalino, L. I., & Fredrickson, B. L. (2018). Positive affective processes underlie positive health behaviour change. *Psychology & Health*, *33*(1), 77–97. https://doi.org/10.1080/08870446.2017.1320798

Emmons, R. A., & McCullough, M. E. (2003). Counting Blessings Versus Burdens: An Experimental Investigation of Gratitude and Subjective Well-Being in Daily Life. *Journal of Personality and Social Psychology*, *84*(2), 377–389. https://doi.org/10.1037/0022-3514.84.2.377

Dickens, L. R. (2017). Using Gratitude to Promote Positive Change: A Series of Meta-Analyses Investigating the Effectiveness of Gratitude Interventions. *Basic and Applied Social Psychology*, *39*(4), 193–208. https://doi.org/10.1080/01973533.2017.1323638

Lomas, T., Froh, J. J., Emmons, R. A., Mishra, A., & Bono, G. (2014). Established Areas of Intervention A Review and Future Agenda. *The Wiley Blackwell Handbook of Positive Psychological Interventions*, 1–19. http://doi.wiley.com/10.1002/9781118315927.ch1

Hill, P. L., Allemand, M., & Roberts, B. W. (2013). Examining the pathways between gratitude and self-rated physical health across adulthood. *Personality and Individual Differences*, *54*(1), 92–96. https://doi.org/10.1016/j.paid.2012.08.011

Fredrickson, B. L., Tugade, M. M., Waugh, C. E., & Larkin, G. R. (2003). What good are positive emotions in crisis? *Journal of Personality and Social Psychology*, *84*(2), 365–376.

Fredrickson, B. L. (2001). The role of positive emotions in positive psychology: The broaden-and-build theory of positive emotions. *American Psychologist*, *56*(3), 218–226. https://doi.org/10.1037//0003-066x.56.3.218

Jackowska, M., Brown, J., Ronaldson, A., & Steptoe, A. (2016). The impact of a brief gratitude intervention on subjective well-being, biology and sleep. *Journal of Health Psychology*, *21*(10), 2207–2217. https://doi.org/10.1177/1359105315572455

Kerr, S. L., O’Donovan, A., & Pepping, C. A. (2015). Can Gratitude and Kindness Interventions Enhance Well-Being in a Clinical Sample? *Journal of Happiness Studies*, *16*(1), 17–36. https://doi.org/10.1007/s10902-013-9492-1

Sheldon, K. M., & Lyubomirsky, S. (2006). How to increase and sustain positive emotion: The effects of expressing gratitude and visualizing best possible selves. *Journal of Positive Psychology*, *1*(2), 73–82. https://doi.org/10.1080/17439760500510676

Snyder, C. R., & Lopez, S. J. (2009). *Handbook of positive psychology*. 417–426.

Pietrowsky, R., & Mikutta, J. (2012). Effects of Positive Psychology Interventions in Depressive Patients—A Randomized Control Study. *Psychology*, *03*(12), 1067–1073. https://doi.org/10.4236/psych.2012.312158

Van Cappellen, P., Rice, E. L., Catalino, L. I., & Fredrickson, B. L. (2018). Positive affective processes underlie positive health behaviour change. *Psychology & Health*, *33*(1), 77–97. https://doi.org/10.1080/08870446.2017.1320798

Cohn, M. A., Pietrucha, M. E., Saslow, L. R., Hult, J. R., & Moskowitz, J. T. (2014). An online positive affect skills intervention reduces depression in adults with type 2 diabetes. *Journal of Positive Psychology*, *9*(6), 523–534. https://doi.org/10.1080/17439760.2014.920410

Bolier, L., Haverman, M., Westerhof, G. J., Riper, H., Smit, F., & Bohlmeijer, E. (2013). Positive psychology interventions: A meta-analysis of randomized controlled studies. *BMC Public Health*, *13*(1). https://doi.org/10.1186/1471-2458-13-119

Sin, N. L., & Lyubomirsky, S. (2009). Enhancing well-being and alleviating depressive symptoms with positive psychology interventions: a practice-friendly meta-analysis. *Journal of Clinical Psychology*, *65*(5), 467–487. https://doi.org/10.1002/jclp.20593

Seligman, M. E. P., Steen, T. A., Park, N., & Peterson, C. (2005). Positive psychology progress: empirical validation of interventions. *The American Psychologist*, *60*(5), 410–421. <https://doi.org/10.1037/0003-066X.60.5.410>

McCullough, M. E., Kilpatrick, S. D., Emmons, R. A., & Larson, D. B. (2001). Is gratitude a moral affect? *Psychological Bulletin*, *127*(2), 249–266. https://doi.org/10.1037/0033-2909.127.2.249

Preacher, K. J., & Hayes, A. F. (2008). Asymptotic and resampling strategies for assessing and comparing indirect effects in multiple mediator models. *Behavior Research Methods*, *40*(3), 879–891. https://doi.org/10.3758/BRM.40.3.879

Liao, K. Y. (2018). Supplemental Material for Gratefulness and Subjective Well-Being: Social Connectedness and Presence of Meaning as Mediators. *Journal of Counseling Psychology*, *65*(3), 383–393. <https://doi.org/10.1037/cou0000271.supp>

Toussaint, L., & Friedman, P. (2009). Forgiveness, gratitude, and well-being: The mediating role of affect and beliefs. *Journal of Happiness Studies*, *10*(6), 635–654. https://doi.org/10.1007/s10902-008-9111-8

Perez, J. A., Peralta, C. O., & Besa, F. B. (2021). Gratitude and life satisfaction: the mediating role of spirituality among Filipinos. *Journal of Beliefs and Values*, *42*(4), 511–522. https://doi.org/10.1080/13617672.2021.1877031

Gabana, N. T., Steinfeldt, J. A., Wong, Y. J., & Chung, Y. B. (2017). Gratitude, burnout, and sport satisfaction among college student-athletes: The mediating role of perceived social support. *Journal of Clinical Sport Psychology*, *11*(1), 14–33. https://doi.org/10.1123/jcsp.2016-0011