



PSIWORLD 2014

# Appreciating the positive protects us from negative emotions: The relationship between gratitude, depression and religiosity

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## Abstract

Noticing and appreciating the positive in life naturally contrasts with a depressive worldview which involves a negative view of self, the world and the future. In this cross-sectional study we investigated whether participants' religious motivation play a role in the relationship between gratitude and depression. Romanian participants (N=113) completed online a series of self-report measures. As expected, an inverse relationship was found between gratitude and depression. More importantly, participants' religious motivation moderates the relationship between gratitude and depression, with highly religious individuals displaying less severe depressive symptoms. Finally, the implications of these findings and future research directions are highlighted.

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Peer-review under responsibility of the Scientific Committee of PSIWORLD 2014.

*Keywords:* gratitude, depression, intrinsic religiosity, moderation

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## 1. Introduction

Gratitude was first conceptualized as a positive emotion experienced after someone altruistically offered his help or gave us a costly present (Wood, Maltby, Stewart, Linley, & Joseph, 2008). However, gratitude cannot be limited to the emotional aspects, being a wider concept. People can be grateful for waking up in the morning, for having a refreshing shower, for being healthy, or for achieving their daily goals. Therefore, gratitude was subsequently defined as a life orientation towards noticing and appreciating the positive in life (Emmons, 2008; Wood, Froh, Geraghty, 2010). This life orientation conceptualization of gratitude was supported by data showing that the higher order gratitude factor covers a wide range of situations and events that elicit gratitude including impersonal sources (i.e., nature) or non-human sources (i.e., God, animals) (Emmons & McCullough, 2003; McCullough, Emmons &

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Tsang, 2002; Wood et al., 2010). When grateful, people generally perceive life from an enhanced perspective that allows them to appreciate what they already have. Therefore, gratitude is now considered an emotion, an attitude and a lifestyle that doesn't hinder individuals from seeking or receiving more, but encourages them to make the best of what they already possess.

Being a life orientation, gratitude was naturally correlated with other personality traits as the Big Five model. Gratitude was associated with extroversion, agreeableness, openness, and inversely related to neuroticism (McCullough et al., 2002; McCullough, Tsang, & Emmons, 2004; Wood, Maltby, Gillett, Linley, & Joseph, 2008; Wood, Maltby, Stewart et al., 2008). Gratitude was also associated with positive emotions and both subjective (Wood et al., 2010) and psychological well-being (Wood, Joseph & Maltby, 2009). Finally, gratitude was inversely related with a wide range of psychopathological conditions like depression (Kendler et al., 2003; Wood, Maltby, Gillett, et al., 2008), post-traumatic stress disorder (PTSD, Kashdan, Uswatte, & Julian, 2006), and suicide (Kleiman, Adams, Kashdan, Riskind, 2013).

The grateful orientation towards appreciating the positive life aspects sharply contrasts with the depressive worldview where the negative aspects are predominantly brought out. According to Beck's well known cognitive triad model, depressed individuals tend to view themselves, the world and the future from a dark and hopeless perspective (Beck, 1963). Actually, the first two DSM (Diagnostic and Statistical Manual) criteria for major depression show that the disorder is characterized by a sad mood and/or a loss of interest or pleasure in daily activities that persists for more than two weeks. No wonder recent studies demonstrated that depressed individuals tend to identify few, if any, gratitude reasons (Lambert, Clark, Durtschi, Fincham, & Graham, 2010).

Although the inverse relationship between gratitude and depression is well established, it is unclear whether individuals' religious interest or motivation plays any role in this relationship. To date, the impact of religious interests and practices for mental health remains understudied despite recent efforts devoted to empirically investigate and synthesize these findings. Recent studies show that religious motivation and practices tend to play a protective role in both physical and mental illness (Koenig, King, & Carson, 2012; Smith, McCullough, & Poll, 2003). In a large survey ( $n=2,621$ ) it was found that intrinsic religious motivation was a protective factor for depression, while thankfulness appeared to reduce the risk for the disorder (Kendler et al., 2003). In another empirical study gratitude was positively related to religious commitment, and this relationship was fully mediated by gratitude to God (Rosmarin, Pirutinsky, Cohen, Galler, & Krumrei, 2011). So it appears that a religious framework promotes gratitude by providing additional opportunities to express this trait. Starting from this relatively young literature we designed a cross-sectional study to investigate the complex relationship established among gratitude, depression and religiosity. We first hypothesized that gratitude and religious motivation are both inversely related to depression, and that highly religious individuals are significantly more grateful when compared to their less-religious counterparts. More importantly, we hypothesized that religious motivation moderates the relationship between gratitude and depression as we anticipate that gratitude and religious motivation will have an additive effect, protecting individuals from depression symptoms.

## 2. Methods

### 2.1. Participants and procedure

A total of 113 Romanian adults (age range 18–68,  $m=33.12$ ,  $SD=10.80$ , 70% women) completed an online survey as part of a larger study. In terms of religious affiliation, the majority of this self-selected population declared to be Christian-Orthodox (75.2%), while the remaining 25% were divided between Roman-Catholics (7.1%), protestants (8.9%) and non-religiously affiliated or atheists (8.8%). A written informed consent was obtained from all participants by surface mail. Afterwards participants were directed to a secure server where all measures could be completed online in one or more sittings (according to participant's preferences).

## 2.2. Measures

Participants' depression levels were assessed using the Beck Depression Inventory-II (BDI-II, Beck, Steer, & Brown, 1996) and the Quick Inventory for Depression Severity – Self-Report (QIDS-SR, Rush et al., 2003). The BDI-II is 21-item questionnaire, being a widely use evidence-based measure, with scores ranging from 0 to 63. The QIDS-SR consists of 16 items that covers the entire range of criterion used in the DSM-IV. This is another widely used depression measure that displays good to excellent psychometric proprieties (i.e.,  $\alpha = .86$ , Trivedi et al., 2004).

Gratitude was assessed with the Gratitude Questionnaire-6 (GQ-6, McCullough et al., 2002). The GQ-6 is a short unifactorial measure that assess the frequency and intensity of gratitude, with scores ranging from 6 to 42, and a good internal consistency ( $\alpha = .82$ , McCullough et al., 2002).

Participants' religiosity was assessed using the Intrinsic Religiosity (IR) scale (Hoge, 1972). The IR is a 10-item measure designed to assess intrinsic religious motivation, namely individual's relationship with and commitment to God. The scale is widely used in both community and clinical settings, with its total score ranging from 10 to 50.

## 3. Results

First, we investigated the relationship between gratitude (as measured by the GQ-6) and depression and found an inverse relationship for both BDI-II and QIDS-SR (see Table 1). Contrary to our expectation, no correlation was found between participants' religious motivation and depression.

Table 1. The correlation matrix

Variables	BDI-II	QIDS-SR	IR
1. Gratitude Questionnaire-6 (GQ-6)	-.36**	-.33**	.22**
2. Beck Depression Inventory-II (BDI-II)		.83**	.00
3. Quick Inventory for Depression Severity – Self-Report (QIDS-SR)			.01
4. Intrinsic Religiosity (IR)			

Note: \*\*  $p < .01$

Second, we tested whether highly religious individuals differ from their less-religious counterparts when it comes to gratitude. For this analysis, we selected only participants who scored one standard deviation (SD) above and below the Intrinsic Religiosity (IR) scale mean. Results show that religiously minded participants display a stronger disposition toward gratitude when compared with less-religious participants ( $t(45) = 2.38$ ,  $p < .05$ ).

Third, we investigated whether participant's religious motivation moderate the relationship between gratitude and depression (as measured by both BDI-II and QIDS-SR). To test this hypothesis a hierarchical multiple regression analysis was conducted. In the first step, two variables were included: gratitude (GQ-6) and intrinsic religiosity (IR). These variables accounted for a significant amount of depression's variance as measured by the BDI-II ( $R^2 = .14$ ,  $F(2, 110) = 9.32$ ,  $p < .00$ ). In the second step, the centered interaction term was added, and it accounted for a significant proportion of the depression variance ( $\Delta R^2 = .043$ ;  $\Delta F(1, 109) = 5.70$ ,  $p = .01$ ;  $t(110) = 2.38$ ,  $p = .01$ ) indicating that there is potentially significant moderation effect of participants' intrinsic religiosity. To thoroughly check the moderation role of religious motivation we implemented the same analytical procedure with another depression measure as dependent variable (i.e., QIDS-SR). The first model was also significant, predicting 12% of depression's variance ( $R^2 = .12$ ,  $F(2, 110) = 7.51$ ,  $p < .00$ ). In the second model, the interaction term also indicated a moderation effect ( $\Delta R^2 = .029$ ;  $\Delta F = 3.69$ ,  $p = .05$ ;  $t(110) = 1.92$ ,  $p = .05$ ). Although we found that gratitude and depression are inversely related for all participants ( $r = -.36$ ,  $p < .00$ ) this relationship seem to be even steeper for highly religious individuals (i.e., those who score one SD above the IR mean,  $r = -.59$ ,  $p < .00$ ). The interaction plot presented in Fig. 1b illustrates that as participants' intrinsic religiosity and gratitude increase, depression level (as measured by the BDI-II) tend to decrease. An almost identical graph illustrates these relationships when depression

was captured by the QIDS-SR (Fig. 1c). One more time, the graph illustrates that individuals who score high on both gratitude and IR tend to have lower depression scores.

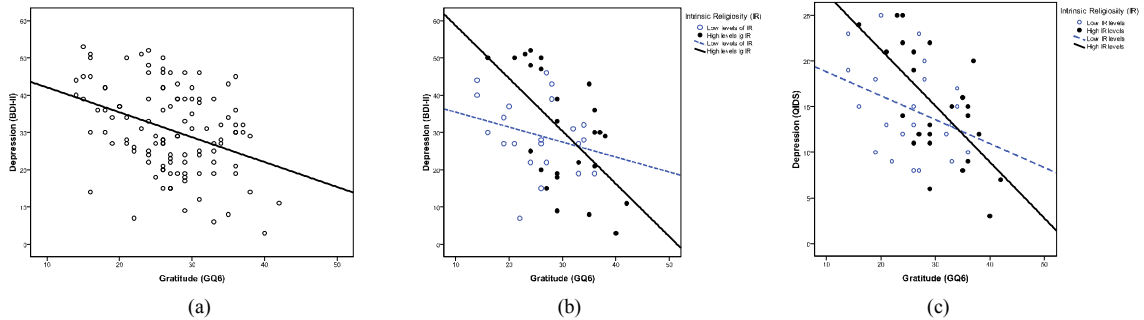


Fig. 1. (a) Gratitude-depression relationship; The moderating interaction plot for BDI-II (b) and QIDS-SR (c)

#### 4. Discussions

We designed a cross-sectional study to investigate the relationships established among gratitude, depression and religious motivation in an adult Romanian sample. As expected, an inverse relationship was found between gratitude and depression, proving that grateful individuals tend to experience less depressive symptoms, while depressed individuals find hard to appreciate what they already have in life. Also, a direct relationship between gratitude and religious motivation was found, and religiously minded individuals displayed a stronger disposition toward gratitude when compared to their less-religious counterparts. Contrary to our expectations, no relationship between religious motivation and depression was found. Similar results were reported in other studies (Koenig et al., 2014; Wink, Dillon & Larsen, 2005). However, such null results are contradicted by the small but reliable association between religious motivation and depression identified in a meta-analytic study (i.e., an omnibus effect size of  $-.096$ , Smith et al., 2003) and in a recent literature review (Koenig et al., 2012). More importantly, we found that participants' religious motivation moderates the relationship between gratitude and depression, with highly religious individuals displaying less severe depressive symptoms. It appears that besides gratitude, intrinsic religiosity represent another important factor that tends to lower participants' depression level, possibly protecting them from experiencing negative emotions.

Clarifying the nature and direction of these relationships represent an important challenge for future studies. The effort to identify and test various moderating and mediating variable is difficult as gratitude, depression and intrinsic religiosity are influenced by multiple factors. Moreover, the reciprocal influences could not be excluded, as some factors believed to exert a causal influence on these variables, are also their consequences. For instance, it is conceivable that the relationship between gratitude and depression is reciprocal. On the one hand, Wood and colleagues found that grateful people had a schematic bias to view the helping behavior as more beneficial (Wood, Maltby, Stewart et al., 2008) and that gratitude directly increase social support and protects individuals from stress and depression (Wood, Maltby, Gillette et al., 2008). On the other hand, it is also possible that the negative schemas activated during a depression episode predispose individuals to notice similar negative events and to ignore the positive events that capture the attention of grateful individuals. In the same realm, the relationship between intrinsic religiosity and depression could be reciprocal. Thus, highly depressed individuals might lack the energy to engage in former pleasant religious activities and therefore might withdraw from them. On the other hand, religious involvement is associated with lower rates of substance use, with higher social support, and with a more positive and meaningful appraisals of stressful life events (Koenig et al., 2012). All these aspects are known to be protective factors for depression. We could finally speculate that third order factors influence all three variables. For example, negative life events might at the same time increase the risk for depression, decrease interests in religion and reduce individuals' gratefulness. In order to clarify such complex patterns, future studies should use experimental and longitudinal designs. For instance, since both gratitude and intrinsic religiosity appear to be related to depression,

the new psychotherapy programs could built on previously-acquired religious motivation and incorporate short gratitude interventions modules to see whether these new features incrementally contribute to their effectiveness.

When considering the results of this exploratory study one should take into account its limitations. First, although the study was advertised in national newspapers and virtually anyone could register and complete the online survey, we ended up with a self-selected sample (i.e., Romanian adults having internet access and interested to take part in an online depression intervention). Second, using a cross-sectional design, our study could not address the causal nature of the reported associations, and therefore the interpretations should be regarded with precaution. Finally, we did not control for the level of social support, and it is well known that religious individuals tend to have a wider social network, and positive social interactions tend to be negatively associated with depression. Therefore, in the present study we could not rule out whether or how much of the moderating role of intrinsic religiosity is actually explained by social support. In spite of these limitations, it is reasonable to conclude that the relationship between gratitude and depression is stronger for highly religious individuals, and it is possible that gratitude and religious motivation play protective role for negative emotions, especially if they appear at the same time and are both strongly manifested.

## Acknowledgements

This work was possible with the financial support of the Romanian Ministry of Education–UEFISCDI, Partnerships in priority domains program (PN-II-PT-PCCA-2013), project number: 331/2014.

## References

- Beck, A. T. (1963). Thinking and depression: Idiosyncratic content and cognitive distortions. *Archives of General Psychiatry*, 9, 324–333.
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *Beck Depression Inventory – Second Edition*. San Antonio TX: Psychological Corporation.
- 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, 377–389. DOI: 10.1037/0022-3514.84.2.377
- Emmons, R.A. (2008). *Thanks! How Practicing Gratitude Can Make You Happier*, New York: Mariner Books.
- Hoge, D. R. (1972). A validated intrinsic religious motivation scale, *Journal for the Scientific Study of Religion*, 11, 369-376.
- Kashdan, T. B., Uswatte, G., & Julian, T. (2006). Gratitude and hedonic and eudemonic well-being in Vietnam war veterans. *Behaviour Research and Therapy*, 44, 177–199. doi:10.1016/j.brat.2005.01.005
- Kendler, K. S., Liu, X. Q., Gardner, C. O., McCullough, M. E., Larson, D., & Prescott, C. A. (2003). Dimensions of religiosity and their relationship to lifetime psychiatric and substance use disorders. *American Journal of Psychiatry*, 160, 496–503.
- Kleiman, E. M., Adams, L. M., Kashdan, T. B., & Riskind, J. H. (2013). Grateful individuals are not suicidal: Buffering risk associated with hopelessness and depressive symptoms, *Personality and Individual Differences*, 55, 595-599. <http://dx.doi.org/10.1016/j.paid.2013.05.002>
- Koenig, H. G., King, D. E., & Carson, V. B., (2012). *Handbook of religion and health*, New York: Oxford University Press
- Koenig, H. G., Berk, L. S., Daher, N. S., Pearce, M. J., Bellinger, D. L., Robins, C. J., Nelson, B., Shaw, S. F., Cohen, H. J., & King, M. B. (2014). Religious involvement is associated with greater purpose, optimism, generosity and gratitude in persons with major depression and chronic medical illness, *Journal of Psychosomatic Research* 77, 135–143. <http://dx.doi.org/10.1016/j.jpsychores.2014.05.002>
- Lambert, N. M., Clark, M. S., Durtschi, J., Fincham, F. D., & Graham, S. M. (2010). Benefits of expressing gratitude. *Psychological Science*, 21, 574–580. doi:10.1177/0956797610364003
- 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. DOI: 10.1037/0022-3514.82.1.112
- Rosmarin, D. H., Pirutinsky, S., Cohen, A. B., Galler, Y., & Krumrei, E. J. (2011). Grateful to God or just plain grateful? A study of religious and general gratitude. *The Journal of Positive Psychology*, 6, 389-396. <http://dx.doi.org/10.1080/17439760.2011.596557>
- Rush, A.J., Trivedi, M. H., Ibrahim, H. M., Carmody, T. J., Arnow, B., Klein, D. N., Markowitz, J. C., Niman, P. T., Kornstein, S., Manber, R., Thase, M. E., Kocsis, J. H., & Keller, M. B. (2003). The 16-item Quick Inventory of Depressive Symptomatology (QIDS) Clinician Rating (QIDS-C) and Self-Report (QIDS-SR): A psychometric evaluation in patients with chronic major depression. *Biological Psychiatry*, 54, 573-583. DOI: 10.1016/S0006-3223(02)01866-8
- Smith, T. B., McCullough, M. E., & Poll, J. (2003). Religiousness and depression: Evidence for a main effect and the moderating influence of stressful life events. *Psychological Bulletin*, 129, 614-636. DOI: 10.1037/0033-2909.129.4.614
- Trivedi, M. H., Rush, A. J., Ibrahim, H. M., Carmody, T. J., Biggs, M. M., Suppes, T., Crismon, M. L., Shores-Wilson, K., Toprac, M. G., Dennehy, E. B., Whitte, B., and Kashner, T. M. (2004). The Inventory of Depressive Symptomatology, Clinician Rating (IDS-C) and Self-Report (IDS-SR), the Quick Inventory of Depressive Symptomatology, Clinician Rating (QIDS-C) and Self-Report (QIDS-SR) in public sector patients with mood disorders: a psychometric evaluation. *Psychological Medicine*, 34, 73-82.

- Wink, P., Dillon, M., & Larsen, B. (2005). Religion as moderator of the depression – health connection. *Research on Aging*, 27, 197-220. doi:m10.1177/0164027504270483.
- Wood, A. M., Maltby, J., Stewart, N., & Joseph, S. (2008). Conceptualizing gratitude and appreciation as a unitary personality trait. *Personality and Individual Differences*, 44, 619–630. DOI: 10.1016/j.paid.2007.09.028
- 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, 854–871. DOI: 10.1016/j.jrp.2007.11.003
- Wood, A. M., Joseph, S., & Maltby, J. (2009). Gratitude predicts psychological well-being above the big five facets. *Personality and Individual Differences*, 46, 443–447. DOI: 10.1016/j.paid.2008.11.012
- Wood, A. M., Froh, J. J., & Geraghty, A. W. A. (2010). Gratitude and well-being: A review and theoretical integration. *Clinical Psychology Review*, 30, 890-905. doi:10.1016/j.cpr.2010.03.005