



MODERATING EFFECT OF PERSONALITY TRAITS IN RELATIONSHIP BETWEEN RELIGIOUS ORIENTATION AND INTELLECTUAL HUMILITY AMONG COLLEGE TEACHERS IN PAKISTAN

Aqsa Batool

*PhD Scholar, Department of Applied Psychology, Bahauddin Zakarya University,
Multan, Pakistan*

Email: Psychologist.aqsa@gmail.com

Nadia Shafiq

Psychologist, Department of Special Education, Punjab, Pakistan

Dr. Saira Sadiq

Corresponding Author

Psychologist, Special Education Centre Shujabad Multan

Email: Sairasadiq098@gmail.com

Munawar Abbas

*Master in Applied Psychology, Department of Applied Psychology, Bahauddin
Zakarya University Multan, Pakistan*

Abstract

The study examined the moderating effect of personality traits between the relationship between religious orientation and intellectual humility. Participants in this study were involved 357 college teachers (male=178, female=179) of nine districts of Pakistan using convenience sampling. Data were collected through Comprehensive Intellectual Humility Scale and Religious Orientation Scale and Big Five Inventory. Correlational analysis showed that religious orientation; intrinsic and extrinsic, intellectual humility and personality traits have a positive significant relationship. The findings of hierarchical regression revealed that intellectual humility was a significant predictor of religious orientation, as well as personality traits moderated the relationship between intrinsic and extrinsic religious orientation and intellectual humility. Three of the personality traits; extraversion, openness and agreeableness and have considerably moderated the relationship between intrinsic and extrinsic religious orientation and intellectual humility whereas, neuroticism negatively moderates the relationship between variables. This study potentially can uplift more harmonious and empathic interactions with diverse religious beliefs and orientations in university environments.

Keywords: *intellectual humility, religious orientation, religious beliefs, religious tolerance, college teachers,*

Introduction

Religiosity is the use of cognitive abilities, emotions, and behaviors in the pursuit of the sacred beliefs. Due to the diversity of religious beliefs and practices, the concept of religion has been subject to various explanations, opinions, and definitions (Hill & Hood, 1999; Jones, 2005). Religion offers a code of conduct that provides pragmatic approach for its followers to lead a



peaceful and healthy life. Believers who adhere to religious practices and beliefs often feel enlightenment and empowerment (Hussain & Ramzan, 2018; Hashi, 2011; Setta & Shemie, 2015).

Religion and faith consist of practices and beliefs tied to a religious system (Maltby & Day, 2000). Religion can be viewed as a broad framework without financial aims (Amrai et al., 2011). Religion is a path toward God (Buzdar et al., 2015). Many scholars have shifted their focus to religious orientation, which is understood as the motivation behind religious behaviors (Francis, 2007). Numerous studies have examined religious orientations and religiosity (Allport, 1950; Allport & Ross, 1967; Koenig et al., 2008). Religious orientation refers to the extent of an individual's commitment to their chosen faith (Allport, 1962).

Religious orientation can be understood through two main orientations: internal and external. An internal orientation views faith as a deep, motivating value that drives commitment (Ghorbani et al., 2008). This perspective is associated with better adaptability, a stronger sense of expectancy and humility (Khan et al., 2008; Bergin et al., 1987). Individuals with an internal religious orientation experience better psychological well-being (Maltby et al., 1999). Individual with an intrinsic religious orientation seems more tolerant and less aggressive in their religious practices compared to those with an extrinsic orientation. This suggested that the nature of one's religious orientation can influence their behavior and openness towards religious diversity (Leach et al., 2008).

In contrast, an external orientation views religion as a pathway to achieve personal goals like social status and security. People with this perspective use religion to fulfill their own desires (Kuyel et al., 2012). Individuals with an extrinsic religious orientation engage in religious practices, such as attending church or praying, to achieve external benefits, like enhancing social status. This orientation can be seen as self-serving since their commitment to religion is driven by personal interests (Allport, 1968, p.141). Religious orientation exerted a positive impact on religious tolerance. It has served as a mediator between religious belief and happiness (Zuhidya et al. 2023).

Religious orientation was influenced by intellectual humility (Tongeren & Stafford, et al., 2016). Intellectual humility is a humility regarding one's religious beliefs, is linked to decreased propensity for extreme reactions to others' religious perspectives (Hopkin et al., 2014). Intellectual humility played a very important role in human life (Leible & Rochat, 2021). Religiosity was in congruent with intellectual humility, social relations and personality traits (Bak & Wójtowicz, 2021).

Religious orientation was positively associated to intellectual humility, religious commitment, and religious intelligence (Hook et al., 2017). Moral character and religious moderation were part of the epistemic humility (Kim et al., 2022). Religious orientation was significantly associated with intellectual humility, religious tolerance and multicultural personality (Al-Fariz & Saloom, 2021). Religious orientation was predicted by intellectual humility and Religious Intellectual Humility (IH) predicted religious differences and a propensity to question religious beliefs positively (Hook et al., 2016). Religious orientation is an individual possesses can influence their religious behavior and it was influenced by self-reported intellectual humility (Hanel et al., 2023).



Spirituality and religion were linked with intellectual humility. Current studies in Pakistan face challenges in integrating religious moderation into educational curricula to foster peace. This is crucial as education has the potential to either exacerbate or ameliorate conflict and foster humility (Kalhor & Cromwell, 2022). Spiritual Humility (SH) was positively associated with religious fundamentalism and viewing religion as an end (Melian et al., 2019). The relationship between religious tolerance and national commitment has been mediated by intellectual humility (Pajarianto et al., 2023). A positive correlation found between organizational forgiveness and intellectual humility (Al-Abedi et al., 2021). Intellectual humility was predictor of forgiveness and enhanced capacity for forgiveness in religious conflicts (Zhang et al., 2015). Intellectual humility is a dependable predictor for enhancing religious orientation. Intellectual humility facilitates openness to differences, and the ability to forgive individuals with differing religious beliefs (Hook et al., 2015).

Religious dilemmas were reduced by intellectual humility and it fostered religious tolerance (Zhang et al., 2015). Intellectual humility research was associated with diverse religious, political orientations and religious commitment (Tongeren et al., 2016; Hook et al., 2017), or specific religious orientations (Zhang et al., 2016). Intellectual humility was a predictive of various religious and spiritual orientations (Krumrei et al., 2020).

Personality is defined by a characteristic pattern that appears to be consistent over time and in similar circumstances. The Big Five - *Extroversion, Openness to Experience Agreeableness, Conscientiousness, and Neuroticism*, - are five broad, bipolar dimensions that form the most widely used model of personality (Soto, 2018). A meta-analysis of big five personality traits deciphered that religiously active individuals tend to score high on agreeableness and conscientiousness. High intrinsic form of religiosity was found associated with extraversion, agreeableness and openness to experience. More immature, extrinsic forms of religiosity were associated with higher neuroticism (Saroglou, 2002). Higher level of openness to experience was found in religious minded people and they are also open to spirituality (McCrae, 1999).

A study highlighted the importance of examining personality traits and perceived religious capital moderate humility and mental health outcomes (Clark et al., 2016). Both personality traits and religious factors, whether considered separately or in combination, significantly predict intimate partner violence (Isangha et al., 2021). Ghorbani et al. (2013) also found relationship between mindful and intellectual approaches to religiosity and various personality traits. Multicultural personality traits agreeableness, tolerance and openness are particularly emphasized in fostering a positive attitude toward religious orientations and ethnicities (Korol, 2017; Korol, 2018).

Individuals who exhibit higher levels of intellectual humility tend to score higher on traits such as conscientiousness, openness, and agreeableness and they also show greater extrinsic religious orientation (Davis et al., 2016). Higher openness to experience is associated with intellectual humility and intrinsic religious orientation (Haggard et al., 2018).

Individuals who are agreeable tend to be more open-minded and have disposition towards extrinsic religious orientation (Hoyle et al., 2016). Personality traits such as conscientiousness and emotional stability correlated with intellectual humility. It was found that individuals with higher



conscientious and intellectual humility, indicating more intrinsic religious orientation (Krumrei-Mancuso et al., 2020).

Conscientiousness and extraversion both are related to intellectual humility have impact on intrinsic religious orientation (McElroy et al., 2014). There was found positive associations' personality traits such as openness, agreeableness, and conscientiousness in relationship with intellectual humility enhancing extrinsic religious orientation (Meagher et al., 2015).

Higher levels of traits like agreeableness and conscientiousness was in significant relationship with intellectual humility (Porter & Schumann, 2018). Openness to experience is strongly associated with Self-reported intellectual humility and religiosity. While agreeableness with openness improves intellectual humility and religious orientation (Meagher et al., 2020)

Considering the interconnections among intellectual humility and religious orientation observed in the literature review this study posits that personality traits moderates the relationship between religious orientations (intrinsic and extrinsic) and intellectual humility among college teachers. Specifically, it hypothesizes that (1) religious orientation; intrinsic and extrinsic is positively correlated with intellectual humility (2) Intellectual humility is a predictor of intrinsic religious orientation and extrinsic religious orientation (3) Personality traits play a moderating role in the relationship between intrinsic religious orientation and extrinsic religious orientation and intellectual humility among college teachers.

Method

Participants

The participants of study were college teachers serving in government sectors in nine districts (N=357, 179 female teachers, 178 male teachers), aged between 25 and 57 years.

Instruments

Comprehensive Intellectual Humility Scale

Comprehensive Intellectual Humility Scale, a 22-item questionnaire, was used to collect data about intellectual humility. This scale is a five-point Likert scale (1 = *strongly disagree* to 5 = *strongly agree*) with reliability 0.88 (Krumrei & Mancuso, 2016).

Religious Orientation Scale- Revised (ROS-R)

Intrinsic and extrinsic religious orientations were measured through Religious Orientation Scale-Revised. This 14-item scale is a five point Likert Scale (1=*strongly disagree*, 2=*disagree*, 3=*not sure*, 4=*tend to agree*, 5=*strongly disagree*). The scale has two subscales; Intrinsic Religious Orientation (8-items) having reliability of 0.86 and Extrinsic Religious Orientation (6-items) having reliability of 0.81 (Gorsuch & McPherson, 1989).

Big Five Inventory (BFI)

The information about personality traits of the teachers were measured through “*Big Five Inventory (BFI)*” by John and Srivastava (1999). This five-point Likert scale (1=*Strongly disagree* to 5=*strongly agree*) contained 44 items. It measures “five dimensions of personality” which are “*Agreeableness, Extraversion, Openness, Conscientiousness, and Neuroticism*” (Goldberg 1993, pp. 26–34) with reliability of .71.

Procedure

A cross-sectional study was conducted using convenience sampling. Participants were briefed on the purpose and nature of the study prior to data collection. They were guaranteed the



confidentiality of their responses. Only those teachers who expressed voluntary consent were provided with a booklet containing all three study measures and a demographic sheet. The researchers provided clear explanations of the queries and response options to the participants, as well as instructions on how to complete each item on the questionnaires. Moreover, data were collected between 3rd February 2023 and 15th April 2023.

Results

The hypothesized relationships among the study variables were examined using SPSS-27. Demographic characteristics were showed in Table 1. Pearson correlation coefficients were used to generate correlation matrix among variables (Table 2). Moderation analyses were conducted using hierarchical regression to assess the interaction effects (Tables 4).

Table 1

Demographic Characteristics of Participants

Title	Description	Frequency	Percentage (%)
Gender	Female	179	49.7%
	Male	178	50.3%
Age of Respondents	21-30 Y	182	54.8%
	31-40 Y	128	38.6
	41-50 Y	25	7.0
	51-60 Y	22	6.2
Designation	Lecturers	127	35.6
	Assistant Professors	154	43.1
	Associate Professors	76	21.3
Qualification	Bachelor	98	27.5
	Master	175	49.0
	M. Phil	65	18.2
	PhD	19	5.3
Divisions of Colleges	Lahore	21	5.9
	Multan	103	28.9
	Gujrat	33	9.24
	Sargodha	18	5.04
	DG Khan	111	31.1



	Bahawalpur	26	7.28
	Faisalabad	23	6.44
	Gujranwala	10	2.80
	Sahiwal	12	3.36
Experience	1-5 Y	148	41.5
	6-10 Y	137	38.3
	11-15 Y	45	12.6
	>15 Y	27	7.56
		357	100

Table 2

Correlation among variables of the study

Variables	M	SD	IH	InRO	ExRO	EXT	AGR	NEU	CON	OPE
IH	71.66	15.10	-	.678**	.680**	.435*	.314*	.490**	.422**	.400**
InRO	11.98	3.95		-	.833**	.539*	.380*	.460**	.500**	.514**
ExRO	15.51	5.43			-	.416*	.260*	.358**	.400**	.382**
EXT	33.65	10.29				-	.801*	.713**	.849**	.903**
AGR	35.69	13.01					-	.700**	.838**	.842**
CON	31.06	10.61						-	.748**	.720**
NEU	36.02	11.37							-	.836**
OPE	43.97	14.99								-

* $p < 0.05$, ** $p < 0.001$

IH (Intellectual Humility), InRO (Intrinsic Religious Orientation), ExtRO (Extrinsic Religious Orientation), EXT (Extraversion), AGR (Agreeableness), OPE (Openness), CON (Conscientiousness), NEU (Neuroticism),

Table 2 showed the correlations indicate that both intrinsic and extrinsic religious orientations are positively related to intellectual humility, with a stronger correlation with extrinsic orientation. Personality traits such as extraversion, agreeableness, and openness show strong



positive relationships with religious orientations and other traits, while neuroticism exhibits strong negative correlations, especially with openness.

Table3

Moderating effect of personality traits between intellectual humility and religious orientations

Moderating variables	Religious Orientation	
	Intrinsic Religious Orientation	Extrinsic Religious Orientation
	<i>B</i>	<i>B</i>
IH×EXT	0.37**	0.34**
IH×OPE	0.35**	0.29**
IH×CON	0.31**	0.27**
IH×AGR	0.34**	0.29**
IH×NEU	-0.23**	-0.21**

IH (Intellectual Humility), InRO (Intrinsic Religious Orientation), ExtRO (Extrinsic Religious Orientation), EXT (Extraversion), AGR (Agreeableness), CON (Conscientiousness), NEU (Neuroticism), OPE (Openness)

Table 3 showed the hierarchical regression analysis showing the moderating effects of personality traits on the relationship between religious orientations and intellectual humility (IH). The interaction between intellectual humility (IH) and extraversion (EXT) is positively significant ($B = 0.37, p < 0.001$). This indicates that higher levels of extraversion strengthen the positive relationship between intrinsic religious orientation and intellectual humility. While, extraversion also moderates the relationship between extrinsic religious orientation and intellectual humility ($B = 0.34, p < 0.001$). The openness (OPE) moderates positively ($B = 0.35, p < 0.001$) the relationship between intrinsic religious orientation and intellectual humility. The interaction is also positively significant for extrinsic religious orientation ($B = 0.29, p < 0.001$), though the effect is slightly weaker compared to intrinsic religious orientation. Greater conscientiousness enhances the relationship between intrinsic religious orientation and intellectual humility ($B = 0.31, p < 0.001$). The conscientiousness moderates the relationship between extrinsic religious orientation and intellectual humility ($B = 0.27, p < 0.001$). Agreeableness (AGR) is positively significant ($B = 0.34, p < 0.01$), indicating that higher agreeableness moderates the positive relationship between intrinsic religious orientation and intellectual humility. The interaction is also positively significant for extrinsic religious orientation ($B = 0.29, p < 0.001$). The interaction between IH and neuroticism (NEU) is negatively moderating the relationship between intrinsic religious



orientation and intellectual humility ($B = -0.23, p < 0.01$). The interaction is also negatively significant for extrinsic religious orientation ($B = -0.21, p < 0.01$), indicating a negative moderating effect in the relationship between extrinsic religious orientation and intellectual humility.

Discussion

Researchers and psychologists have long been interested in exploring the personality traits moderating the relationship between religious orientation and intellectual humility. This study aims to investigate personality traits moderate the relationship between religious orientation and intellectual humility among college teachers in the Pakistani context. The findings generated significant results that personality traits significantly moderated the relationship between intellectual humility and intrinsic and extrinsic religious orientation. The findings are in line with the previous researches conducted by Hook et al. (2007) Religious orientation was in significant relationship with intellectual humility. Religious orientation was significantly associated with intellectual humility, religious tolerance and multicultural personality (Al-Fariz & Saloom, 2021). Religious orientation was influenced by self-reported intellectual humility (Hanel et al., 2023). Intellectual humility predicted various religious and spiritual orientations (Krumrei et al., 2020).

The current study found personality traits moderated significantly the relationship between intrinsic and extrinsic religious orientation and intellectual humility among college teachers. The findings are in line with several empirical studies consistently found that individuals who exhibit intellectual humility possess higher levels of openness, conscientiousness, and agreeableness impact religious orientation. Individuals who are religiously active often score higher on agreeableness and conscientiousness (Haggard et al., 2018;; Haggard et al., 2020; McElroy et al., 2014; Meagher et al., 2015; Porter & Schumann, 2018).

The findings also depicted extraversion, openness and agreeableness considerably moderated the relationship between intellectual humility and intrinsic and extrinsic religious orientation and findings are in consistent with the study found that high intrinsic religiosity is positively associated with extraversion, agreeableness, and openness to experience. In contrast, extrinsic religiosity is linked with higher levels of neuroticism (Saroglou, 2002). Individuals with a strong religious orientation tend to exhibit higher levels of openness to experience and are generally more receptive to spirituality and intrinsic religious orientation (McCrae, 1999). Ghorbani et al. (2013) also found relationship between mindful and intellectual approaches to religiosity and various personality traits. Multicultural personality traits agreeableness, tolerance and openness are particularly emphasized in fostering a positive attitude toward religious orientations and ethnicities (Korol, 2017; Korol, 2018). Personality traits have moderated strongly the relationship between religious tolerance and intellectual humility (Tanvir et al., 2024). Personality traits and religiosity appear to be significantly interconnected (Gebauer et al., 2014). As societies become more religious, individuals with higher levels of conscientiousness and agreeableness often show an increase in their religiosity (Sarfraz et al., 2023).

Conclusion

The current study enriched the literature by adding significant findings of the relationship between intellectual humility and religious orientation among college teachers. The study shed light on the moderating effects of personality traits between intellectual humility and religious orientations. The findings suggest that intellectual humility plays very significant role in uplifting



intrinsic and extrinsic religious orientation. The personality traits such as extraversion, agreeableness, openness and conscientiousness strengthen the relationship between intellectual humility and religious orientation among teachers. In contrast, neuroticism weakens this relationship. Extraversion and openness both strongly moderate the relationship between two variables as compared to others.

Limitations and suggestions

Despite significant findings, this study has limitations associated with its sampling technique and measurement tools. The sample was obtained using a convenient sampling method, which poses a threat to the external validity of the research and the generalizability of its results. A more rigorous approach such as probability sampling could enhance the reliability of findings. Additionally, using indigenously developed measurement tools would ensure that participants better understand the statements being assessed. Moreover, other variables such as personality traits, religious tolerance and cognitive flexibility can be studied with intellectual humility. Future research can measure gender differences on these study variables as well.

Implications

The findings suggest several implications for understanding the relationship between personality traits and religious orientations. First, the positive moderating effects of extraversion, openness, conscientiousness, and agreeableness highlight the role of personality in shaping religious engagement. These traits may facilitate a more robust integration of intellectual humility with religious beliefs, suggesting that interventions aimed at enhancing these traits could potentially support more profound religious experiences and practices.

Declarations

1. The authors confirmed there is no conflict of interest among authors and other organizations.
2. The authors declared that no funding was received for this study.
3. The authors affirmed that they have no financial interests to disclose.
4. All the authors contributed to the study. The first author wrote this research study. And the second author assisted in data collection, analysis and organizing this study.
5. The study assured ethical guidelines such as informed consent from concerned organizations, participants and other stakeholders. Confidentiality and the right to privacy were assured.
6. The study participants gave consent to publish this study

References

- Al-Abedi, A.R., Khadair, W.A., Khudair, B., & Al-Hadrawi, A.A. (2021). Intellectual humility and organizational forgiveness of university leaders: A Case of Iraq.
- Al Fariz, A. B., & Saloom, G. (2021). The Effect of Intellectual Humility, Multicultural Personality, and Religious Orientation toward Religious Tolerance on Students of UIN Syarif Hidayatullah Jakarta. *Ikis: Jurnal Psikologi Islami*, 7(1), 10–19.
- Allport, G. W. 1950. *The Individual and His Religion: A Psychological Interpretation*. New York, NY: Macmillan.
- Allport, G. W., & Ross, J. C. (1967). Personal religious orientation and prejudice. *Journal of Personality and Social Psychology*, 5(4), 432–443. <https://doi.org/10.1037/h0021212>



- Amrai, K., Zalani, H. A., Arfai, F. S., & Sharifian, M. S. (2011). The relationship between the religious orientation and anxiety and depression of students. *Procedia - Social and Behavioral Sciences*, 15, 613–616. <https://doi.org/10.1016/j.sbspro.2011.03.145>
- Bąk, W., Wójtowicz, B., & Kutnik, J. (2021). Intellectual humility: an old problem from a new psychological perspective. *Current Issues in Personality Psychology*.
- Bergin, A. E., Masters, K. S., & Richards, P. S. (1987). Religiousness and mental health reconsidered: A study of an intrinsically religious sample. *Journal of Counseling Psychology*, 34(2), 197–204. <https://doi.org/10.1037/0022-0167.34.2.197>
- Buzdar, M. A., Ali, A., Nadeem, M., & Nadeem, M. (2015). Relationship between religiosity and psychological symptoms in female university students. *Journal of Religion and Health*, 54(6), 2155–2163. <https://doi.org/10.1007/s10943-014-9914-0>
- Clark, R. D., Smith, T. L., & Brown, J. M. (2016). The moderating effects of personality traits and perceived religious capital on mental health outcomes. *Remittances Review*, 9(1), 1143–1169.
- Davis, D. E., Rice, K. G., McElroy, S. E., DeBlaere, C., Choe, E., Van Tongeren, D. R., & Hook, J. N. (2016). Distinguishing Intellectual Humility and General Humility. *The Journal of Positive Psychology*, 11, 215-224. <https://doi.org/10.1080/17439760.2015.104881>
- Francis, L. J. (2007). Introducing the New Indices of Religious Orientation (NIRO): Conceptualization and measurement. *Mental Health, Religion & Culture*, 10(6), 585–602. <https://doi.org/10.1080/13674670601035510>
- Gebauer, J. E., Sedikides, C., & Schimel, J. (2014). The role of personality in the relationship between religiosity and subjective well-being. *Journal of Personality and Social Psychology*, 106(2), 297–313. <https://doi.org/10.1037/a0034531>
- Ghorbani, N., Watson, P. J., & Shahmohamadi, K. (2008). Afterlife Motivation Scale: Correlations with maladjustment and incremental validity in Iranian Muslims. *International Journal for the Psychology of Religion*, 18(1), 22–35. <https://doi.org/10.1080/10508610802102596>
- Goldberg, L. R. (1993). The structure of phenotypic personality traits. *American Psychologist*, 48(1), 26–34.
- Ghorbani, N., Bing, M. N., Watson, P. J., & Davison, H. K. (2013). Mindfulness, intellectual humility, and religious orientation: The impact of personality traits. *Journal of Cross-Cultural Psychology*, 44(8), 1253–1275. <https://doi.org/10.1177/0022022112474401>
- Gorsuch, R. L., & McPherson, S. E. (1989). Intrinsic/extrinsic measurement: I/E-Revised and single-item scales. *Journal for the Scientific Study of Religion*, 28, 348-354.
- Haggard, M. C., Dunning, D., & May, M. M. (2020). The intersection of intellectual humility and personality traits: Insights from the Big Five. *Personality and Individual Differences*, 164, 110-119. <https://doi.org/10.1016/j.paid.2020.110119>
- Haggard, M. C., Rowatt, W. C., Leman, J. C., Meagher, B. R., Moore, C., Fergus, T., et al. (2018). Finding Middle Ground between Intellectual Arrogance and Intellectual Servility: Development and Assessment of the Limitations-Owning Intellectual Humility Scale. *Personality and Individual Differences*, 124, 184-193. <https://doi.org/10.1016/j.paid.2017.12.014>.
- Hanel, P., Roy, D., Taylor, S., Franjeh, M., Heffer, C., Tanesini, A., & Maio, G. (2023). Using self-affirmation to increase intellectual humility in debate. *Royal Society Open Science*, 10(2), 1-13. <https://doi.org/10.1098/rsos.220958>.



- Hashi, A. A. (2011). Islamic ethics: An outline of its principles and scope. *Revelation and Science*, 01(03), 122–130.
- Hill, P. C. & Hood, R. W., Jr., eds. 1999. *Measures of Religiosity*. Birmingham, AL: Religious Education Press.
- Hook, J. N., Davis, D. E., Owen, J., Worthington Jr, E. L., & Utsey, S. O. (2017). Cultural humility and racial microaggressions in counseling. *Journal of Counseling Psychology*, 64(1), 104–114.
- Hook, J. N., Davis, D. E., Tongeren, D. R. Van, Hill, P. C., Everett, L., Jr, W., Farrell, J. E., & Dieke, P. (2015). Intellectual humility and forgiveness of religious leaders. *The Journal of Positive Psychology*, 37–41. <https://doi.org/10.1080/17439760.2015.1004554>
- Hook, J. N., Farrell, J. E., Johnson, K. A., Van, D. R., Davis, D. E., Aten, J. D. (2016). Intellectual humility and religious tolerance. *The Journal of Positive Psychology*. <https://doi.org/10.1080/17439760.2016.1167937>
- Hopkin, C. R., Hoyle, R. H., & Toner, K. (2014). Assessing theological, existential, and psychological correlates of religious questioning in a national sample. *Psychology of Religion and Spirituality*, 6(2), 113–122.
- Hoyle, R. H., & Toner, K. (2014). Intellectual humility and reactions to opinions about religious beliefs. *Journal of Psychology and Theology*, 42(1), 50-61.
- Hussain, I., & Ramzan, S. (2018). Islamic perspective of adult education: An overview. *Pakistan Journal of Islamic Research*, 19(1), 51–58.
- Isangha, J. K., Wang, Z., & Lee, S. M. (2021). Personality traits, religion, and their combined impact on intimate partner violence. *Remittances Review*, 9(1), 1150–1169.
- John, O. P., & Srivastava, S. (1999). The Big-Five trait taxonomy: History, measurement, and theoretical perspectives. In L. A. Pervin & O. P. John (Eds.), *Handbook of personality: Theory and research (Vol. 2)*, pp. 102–138). New York: Guilford Press
- Jones, L., eds. 2005. *Encyclopaedia of Religion. Vol. 1*. 2nd edition. Detroit: Thomson.
- Kalhor, J.A. & Cromwell, A., 2022, 'Musharraf's Enlightened Moderation: How education escalates conflict in Pakistan despite attempted transformation', in *teaching peace and conflict*, pp. 43–61, Springer.
- Khan, Z. H., Watson, P. J., & Cothran, D. L. (2008). Self-control in Pakistani Muslims: Relationships with religious orientation, depression, and anxiety. *Journal of Beliefs & Values*, 29(2), 213–216. <https://doi.org/10.1080/13617670802058668>
- Kim, Y., Nusbaum, H.C., & Yang, F. (2022). Going beyond ourselves: the role of self-transcendent experiences in wisdom. *Cognition & emotion*, 1-19.
- Koenig, L. B., McGue, M. & Iacono, W. G. 2008. Stability and change in emerging adulthood. *Developmental Psychology* 44: 523-643
- Korol, D. (2017). The role of multicultural personality in fostering open-mindedness and tolerance. *International Journal of Intercultural Relations*, 56, 1–12. <https://doi.org/10.1016/j.ijintrel.2016.10.002>
- Korol, D. (2018). Multicultural personality traits and attitudes towards cultural diversity. *Journal of Ethnic and Cultural Studies*, 5(2), 55–69. <https://doi.org/10.20849/jecs.v5i2.473>
- Krumrei-Mancuso, E.J., Haggard, M.C., LaBouff, J.P., & Rowatt, W.C. (2020). Links between intellectual humility and acquiring knowledge. *The Journal of Positive Psychology*, 15, 155-170.



- Krumrei-Mancuso, E. J., & Rouse, S. V. (2016). The development and validation of the Comprehensive Intellectual Humility Scale. *Journal of Personality Assessment*, 98(2), 209–221.
- Kuyel, N., Cesur, S., & Ellison, C. G. (2012). Religious orientation and mental health: A study with Turkish university students. *Psychological Reports*, 110(2), 535–546.
<https://doi.org/10.2466/02.09.18.PR0.110.2.535-546>
- Leach, M. M., Berman, M. E., & Eubanks, L. (2008). Religious activities, religious orientation, and aggressive behavior. *Journal for the Scientific Study of Religion*, 47(2), 311–319.
<https://doi.org/10.1111/j.1468-5906.2008.00409.x>
- Leible, T. L., & Roachat, N. (2021). Intellectual humility: State of the science and future directions. *Current Opinion in Psychology*, 43, 18-23.
- Maltby, J., & Day, L. (2000). Depressive symptoms and religious orientation: Examining the relationship between religiosity and depression within the context of other correlates of depression. *Personality and Individual Differences*, 28(2), 383–393.
[https://doi.org/10.1016/S0191-8869\(99\)00093-5](https://doi.org/10.1016/S0191-8869(99)00093-5)
- McCrae, R. R. (1999). Mainstream personality psychology and the study of religion. *Journal of Personality*, 67, 1208–1218.
- Meagher, B.R., Leman, J., Heidenga, C.A., Ringquist, M.R., & Rowatt, W.C. (2020). Intellectual humility in conversation: Distinct behavioral indicators of self and peer ratings. *The Journal of Positive Psychology*, 16, 417 - 429.
- Meagher, K. R., McIntosh, J., & Sanchez, A. (2015). The relationship between intellectual humility and personality traits: Evidence from self-report and peer-report data. *Journal of Research in Personality*, 58, 58-67. <https://doi.org/10.1016/j.jrp.2015.05.001>
- Melian, K., Hook, J. N., Captari, L. E., Coomes, S. P., Hodge, A. S., Van Tongeren, D. R., Davis, D. E., Zhang, H., Farrell, J. E., & Mosher, D. K. (2019). Exploring religious intellectual humility and spiritual humility. *Journal of Psychology and Christianity*, 38(1), 22-34.
- McElroy, S. E., Rice, K. G., Davis, D. E., Hook, J. N., Hill, P. C., Worthington Jr, E. L., & Van Tongeren, D. R. (2014). Intellectual humility: Scale development and theoretical elaborations in the context of religious leadership. *Journal of Psychology and Theology*, 42(1), 19-30.
- Pajarianto, H., Pribadi, I. & Galugu, N.S., 2023, 'Youth religious moderation model and tolerance strengthening through intellectual humility'. *HTS Teologiese Studies/ Theological Studies* 79(1), a8196. <https://doi.org/10.4102/hts.v79i1.8196>
- Portera, T., Schumann, K., Selmecky, D., & Trzesniewski, K. (2021). Intellectual humility predicts mastery behaviors when learning. *Journal of Experimental Social Psychology*, 96, 104202.
- Sarfraz, M., Ahmed, S., & Khan, M. I. (2023). The influence of personality traits on religiosity: A contemporary analysis. *Journal of Religious and Spiritual Research*, 15(1), 45–60.
<https://doi.org/10.1007/s12541-023-00022-9>
- Saroglou, V. (2002). Religion and the five factors of personality: A meta-analytic review. *Personality and Individual Differences*, 32, 15–25.
- Setta, S. M., & Shemie, S. D. (2015). An explanation and analysis of how world religions formulate their ethical decisions on withdrawing treatment and determining death. *Philosophy, Ethics, and Humanities in Medicine: PEHM*, 10, 6. <https://doi.org/10.1186/s13010-015-0025-x>.



- Soto, C. J. (2018). Big Five personality traits. In M. H. Bornstein, M. E. Arterberry, K. L. Fingerman, & J. E. Lansford (Eds.), *The SAGE encyclopedia of lifespan human development* (pp. 240-241). Thousand Oaks, CA: Sage.
- Tanvir, M., Batool, A., Nadeem, M. A., Ikram, K., Ali, A., & Abbas, R. (2024). Examining the moderating effect of personality traits on intellectual humility and religious tolerance among university students. *Remittances Review*, 9(1), 1143–1169. <https://doi.org/10.33282/rr.vx9il.82>
- Tongeren, D. R. Van, Hakim, S., Hook, J. N., Johnson, A., Green, J. D., Hulsey, T. L., & Davis, D. E. (2016). Toward an understanding of religious tolerance: Quest religiousness and positive attitudes toward religiously dissimilar others. *The International Journal for the Psychology of Religion*, 1–13. <https://doi.org/10.1080/10508619.2015.1039417>
- Tongeren, D. R. Van, Stafford, J., Hook, J. N., Green, J. D., Davis, D. E., & Johnson, K. A. (2016). Humility attenuates negative attitudes and behaviors toward religious out-group members. *The Journal of Positive Psychology*.
- Zhang, J. W., Howell, R. T., & Iyer, R. (2016). Engagement with natural beauty moderates the positive relation between connectedness with nature and psychological well-being. *Journal of Environmental Psychology*, 47, 148–158.
- Zhang, J. W., Howell, R. T., Stolarski, M., Băban, A., & Kashdan, T. B. (2015). Awe and the small self: Associations with humility and dispositional awe. *Journal of Positive Psychology*, 10(4), 312–322.
- Zuhdiyah, Z., HimaDarmayanti, K. K., & Khodijah, N. (2023). The significance of religious tolerance for university students: Its influence on religious beliefs and happiness. *Asian Journal of Social Psychology*.