

Humility, Intellectual Humility, and Subjective Well-Being: The Mediating Role of Altruistic Attitudes and Prosocialness

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Abstract. Previous studies have explored the relationship between humility and subjective well-being, but have given limited attention to the correlation between cognitive aspect of humility, known as intellectual humility, and subjective well-being. Understanding the underlying mechanisms that drive this relationship is essential. Therefore, this study aimed to investigate the relationship between humility, intellectual humility, and subjective well-being, with a focus on whether altruistic attitudes and prosocialness mediated the relationship. An online questionnaire was administered to a total of 231 participants to assess their levels for these variables. The results showed that prosocialness mediated the relationship between humility, intellectual humility, and subjective well-being. However, the hypothesized mediation effect of altruistic attitudes was not supported. In conclusion, the results indicated that high levels of humility and intellectual humility in an individual could increase prosocialness, which in turn, enhanced subjective well-being.

Keywords: altruistic attitudes, humility, intellectual humility, prosocialness, subjective well-being

Kerendahan Hati, Kerendahan Hati Intelektual, dan Kesejahteraan Subjektif: Peran Mediasi Sikap Altruistik dan Prosocial

Abstrak. Meskipun sejumlah penelitian sebelumnya menunjukkan adanya hubungan kerendahan hati (*humility*) dengan kesejahteraan subjektif (*subjective well-being*), belum banyak diteliti apakah aspek kognitif kerendahan hati, yang disebut kerendahan hati intelektual (*intellectual humility*), berhubungan dengan kesejahteraan subjektif. Penting untuk diketahui pula bagaimana mekanisme yang mendasari hubungan tersebut. Penelitian ini bertujuan untuk mengetahui hubungan kerendahan hati dan kerendahan hati intelektual dengan kesejahteraan subjektif dan berhipotesis bahwa sikap altruistik dan kecenderungan prososial berperan dalam memediasi hubungan tersebut. Sebanyak 231 orang berpartisipasi menjadi responden dalam penelitian ini dengan mengisi kuesioner secara online. Responden diukur kerendahan hati, kerendahan hati intelektual, sikap altruistik, kecenderungan prososial, dan kesejahteraan subjektifnya. Hasil analisis menunjukkan, kecenderungan prososial berperan memediasi hubungan kerendahan hati dan kerendahan hati intelektual dengan kesejahteraan subjektif. Berbeda dengan hipotesis, sikap altruistik tidak berperan memediasi hubungan tersebut. Kerendahan hati dan kerendahan hati intelektual yang tinggi pada seseorang dapat meningkatkan kecenderungan prososial dan hal ini pada akhirnya meningkatkan kesejahteraan subjektif.

Kata Kunci: kecenderungan prososial, kerendahan hati, kerendahan hati intelektual, kesejahteraan subjektif, sikap altruistik

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Studies on positive psychology have been expanding since inception over the past two decades, and are expected to continue growing in the future (Seligman, 2019). Despite virtues being fundamental to positive psychology (Hill & Sandage, 2016; Sandage & Hill, 2001), humility has received limited attention from psychological experts (Davis et al., 2013), particularly during the early emergence of positive psychology. This scarcity may be attributed to its close association with theology and ethics (Hill & Sandage, 2016). However, this area of study has witnessed significant exploration in recent years.

Humility is a virtue characterized by accurate self-assessment, acknowledgment of weaknesses, a focus beyond oneself, and openness to the values and ideas of others (Tangney, 2000). While many view humility as a positive trait, some perceive it as negative (Elliott, 2010), associated with feelings of worthlessness, low self-esteem, and self-criticism (Hill & Sandage, 2016; Tangney, 2000). Despite these mixed perceptions, humility aligns with the criteria for virtue and character in positive psychology, emphasizing its potential to enhance the well-being of both oneself and others (Harvey & Pauwels, 2004; Park et al., 2004)

Several studies reported the role of humility in various aspects of life, including interpersonal relationship. For instance, individual with high humility exhibited more positive attitudes and behaviors toward others

with different religious views (Tongeren, Stafford, et al., 2016). Longitudinal studies have shown that humility strengthens social bonds, leading to greater forgiveness and acceptance in groups (Davis et al., 2013). Experimental investigations also showed that this trait positively influenced inclination toward helpful behavior, even independently of the effects of the Big Five personality factors, religiosity, and gratitude (Exline & Hill, 2012; LaBouff et al., 2012).

Humility plays a positive role in enhancing quality of life, a crucial concept in positive psychology known as subjective well-being, which measures how individuals think and feel about their lives (Diener et al., 2018). Correlational studies consistently showed that humility was positively related to life satisfaction (Krause, 2016) and well-being (Jankowski et al., 2019). This trait is also known to mitigate the negative effects of stress on well-being (Krause et al., 2016). A significant aspect of this trait is the epistemic virtue known as intellectual humility, which has garnered attention from both philosophers (Snow, 2018; Tanesini, 2018; Whitcomb et al., 2017) and psychological scientists (Du & Cai, 2020; Leary, 2018). Drawing from investigations involving both groups, Leary (2018) defined intellectual humility as “recognizing that a particular personal belief may be fallible, accompanied by an appropriate attentiveness to limitations in the evidentiary basis of that belief and to one’s own limitations in obtaining and evaluating

relevant information” (p. 4). Similarly, Krumrei-Mancuso and Rouse (2016) described it as “a nonthreatening awareness of one’s intellectual fallibility” (p. 210). This awareness stemmed from respecting the viewpoints of others, openness to the revision of personal perspectives, having low overconfidence in what is known, and being unthreatened by differences in perspectives (Krumrei-Mancuso & Rouse, 2016).

It is important to note that intellectual humility differs from humility in several aspects. While humility involves recognizing personal limitations, accurate self-assessment, differences in all aspects, and focuses on reducing self-centeredness, intellectual humility pertains to accurate awareness and limitation of self knowledge, values the differing perspectives of others, and centers on minimizing overconfidence (Krumrei-Mancuso & Rouse, 2016; Leary, 2018; Tangney, 2000). Although intellectual humility was a component of humility, several studies showed that these two variables were distinct (Davis et al, 2016). Given the general positive impact of humility on well-being, it is crucial to investigate the effect of intellectual humility on subjective well-being (Leary, 2018).

Subjective well-being, a central concept in positive psychology, refers to the cognitive and affective evaluations of the quality of life (Diener, 2000; Diener et al, 2002, 2018). It comprises two main components, namely positive emotions and positive life functioning

(Magyar & Keyes, 2019). Positive emotions encompass levels of happiness and life satisfaction, as well as experienced positive affect (emotional well-being). Meanwhile, positive life functioning pertains to personal development (psychological well-being) and building meaningful relationship (social well-being).

Personality factors, in addition to social and cultural factors, play a crucial role in influencing subjective well-being (Diener et al, 2003; Diener & Ryan, 2009). Among these factors, values and character significantly contribute to the level of subjective well-being (Oishi et al, 1999; Park et al, 2004). In history, philosophers advocated that practicing virtues could bring happiness (Besser, 2021). In line with this, positive psychology experts classified several virtues and character strengths as beneficial for human life. This was exemplified in the Values in Action (VIA) Classification of Strengths, many of which were positively related to happiness and life satisfaction (Park et al, 2004). Other studies suggested that developing virtuous and pleasure motives could enhance optimal achievement of subjective well-being (Huta & Ryan, 2010). However, the strength of this relationship could vary depending on how the local culture appreciated or disregarded the virtues (James Jr., 2011; Stavrova et al, 2013).

Several studies showed that humility was positively related to subjective well-being, while others reported its correlation with life

satisfaction (Krause, 2016). Humility can serve as a buffer in reducing the negative effects of stress on depression, anxiety, happiness, and life satisfaction (Krause et al., 2016). In another study examining the mechanisms underlying this relationship in religious leaders, humility positively influenced well-being, mediated by high self-regulation and low uncomfortable attachment to God (Jankowski et al., 2019), in contrast to some other results with negative correlation. High levels of intellectual humility led to increased uncomfortable attachment to God, subsequently reducing well-being. In an attempt to refute the conclusion of the the negative correlation, a measure of intellectual humility was developed for religious populations, serving as a buffer for the effect of religious commitment on several well-being indicators, including meaning in life and life satisfaction (Hill et al., 2021).

Some studies on humility contrastingly showed weak and even negative correlations with life satisfaction and subjective well-being. An investigation of the relationship between various character strengths from the VIA and life satisfaction found that humility/modesty had a weaker correlation compared to other character strengths (Park et al., 2004). Certain intellectually oriented character strengths, such as creativity and love of learning, showed a weak correlation with life satisfaction. A negative relationship was also found between humility and psychological well-being measured at two different times with the same

respondents. However, psychological well-being was found to affect humility (Tong et al., 2019). Different results were also reported for studies developing humility measurement tool, showing a negative correlation (Elliott, 2010).

Several studies within the framework of the Humility (Intellectual)-Health hypothesis asserted that humility and intellectual humility were positively related to subjective well-being (Bowes & Tasimi, 2023). It is hypothesized that the relationship between both variables was mediated by altruistic attitudes and prosocialness. Altruism is defined as "a motivational state with the ultimate goal of increasing another's welfare" (Batson & Shaw, 1991, p. 108). Although not the sole motive, altruism can drive individuals to engage in prosocial behaviors, which are actions intended to benefit others (Batson & Powell, 2003). In this context, altruistic attitudes refer to motivations to enhance the well-being of others, which can lead to the emergence of prosocial actions (Bhatta et al., 2021). Prosocialness is understood as empathetic feelings and prosocial actions, such as sharing, helping, and providing protection, directed toward the needs or requests of others (Caprara et al., 2005).

The relationship between humility and intellectual humility with subjective well-being, mediated by altruistic attitudes and prosocialness, is based on the self-determination theory. According to this theory, humans have three innate psychological needs, namely

competence, relatedness, and autonomy, that contribute to personal growth and personality integration, ultimately enhancing well-being (Ryan & Deci, 2000). Helping others based on altruistic motives can fulfill these needs, leading to an increase in well-being and enhancing sense of competence by demonstrating the ability to positively affect a situation. It also strengthens feelings of relatedness with others and promotes autonomy as the act of helping to reflect personal values (Weinstein & Ryan, 2010). According to the self-determination theory, altruistic attitudes and prosocialness are driven by the need for competence, relatedness to others, and autonomy, motivating individuals to embody the values of humility and intellectual humility. Consequently, these actions contribute to subjective well-being.

The relationship between humility and intellectual humility with subjective well-being mediated by altruistic attitudes and prosocialness is also based on a hypo-egoic perspective, characterized by several factors: 1) thoughts and feelings being involved in the current situation, not dwelling on the past or the future; 2) minimal self-introspection of thoughts, feelings, and motives; 3) thinking and evaluating oneself concretely and specifically, rather than abstractly and generally; 4) being less concerned about how others perceive and evaluate oneself (Leary et al., 2017). Humility fits this hypo-egoic phenomenon, characterized by accurate self-assessment, a focus on others in interpersonal relationships, and openness to

learn from others (Hill & Laney, 2017). Humility creates hypo-egoic conditions that foster prosocial behaviors, positively impacting subjective well-being (Hill & Laney, 2017).

Several previous studies showed the correlation between certain demographic variables, such as age and marital status (Krause, 2016), Age and intellectual humility (Krumrei-Mancuso, 2017), age, education, and marital status with subjective well-being (Diener & Ryan, 2009). Therefore, control for demographic variables is necessary for this current study.

Based on the theoretical review above, the following hypotheses were proposed:

H₁ : Intellectual humility and humility are associated with altruistic attitudes, prosocialness, and subjective well-being.

H₂ : Humility predicts altruistic attitudes, prosocialness, and subjective well-being after controlling for demographic variables.

H₃ : Intellectual humility predicts altruistic attitudes, prosocialness, and subjective well-being after controlling for humility and demographic variables.

Understanding the underlying mechanism of the relationship between humility and intellectual humility with subjective well-being is essential because, from the perspective of positive psychology, one of the criteria for virtues and character is the potential to contribute to the well-being of oneself and others (Park et al., 2004). As virtues and character strengths, humility, and intellectual

humility are expected to play a role in enhancing subjective well-being. However, the existing limitations on the possibility of this correlation warrant the importance of this study.

Previous experimental results showed that humility could affect altruistic attitudes, as it correlated with altruistic motives but not with egoistic motives, leading individuals to engage in helping actions (LaBouff et al, 2012). Experiments using the dictator game paradigm showed that humility was associated with altruistic tendencies characterized by fair actions (Hilbig et al, 2015). Surveys conducted with corporate leaders found that those with higher levels of humility had a significant impact on increased altruism, subsequently enhancing corporate innovation (Mallén et al, 2019). Another study showed that high altruistic attitudes could enhance subjective well-being in terms of higher life satisfaction and positive affect (Kahana et al, 2013). In addition, these attitudes were expected to act as a mediator in the relationship between intellectual humility and subjective well-being. Intellectual humility, indicated by valuing the perspectives of others, could enhance empathy, specifically perspective-taking and empathic concern (Krumrei-Mancuso, 2017). According to the empathy-altruism hypothesis (Batson et al, 2015), empathic concern could trigger altruistic motivation, prompting prosocial behaviors. Krumrei-Mancuso (2017) also found that high levels of intellectual humility were associated with higher levels of altruism and several other prosocial values, such as benevolence, universalism, and lower power-seeking tendencies.

Based on the theoretical review above, the following hypotheses were proposed:

H₄ : Altruistic attitudes mediate the relationship between humility and subjective well-being.

H₅ : After controlling for humility, altruistic attitudes mediate the relationship between intellectual humility and subjective well-being.

Prosocialness is considered a mediating factor in the relationship between humility and subjective well-being. This implies that higher levels of correlation are connected to increased prosocialness, enhancing subjective well-being. This assumption was based on the humility-helpfulness hypothesis, emphasizing that individuals with high humility were more likely to engage in helping actions (LaBouff et al, 2012). The individuals also tended to be more generous, willing to contribute to strangers, and had greater motives to do good for both close friends, strangers, and even enemies (Exline & Hill, 2012). Prosocialness was expected to improve subjective well-being, since high prosocial behavior could increase sense of meaning in life (Tongeren, Green, et al, 2015). They could also mediate the relationship between intellectual humility and subjective well-being. Higher levels of intellectual humility in an individual were associated with greater empathy and prosocial values and tendencies (Krumrei-Mancuso, 2017).

Based on the theoretical review above, the following hypotheses were proposed:

H_6 : *Prosocialness mediates the relationship between humility and subjective well-being.*

H_7 : *After controlling for humility, prosocialness mediates the relationship between intellectual humility and subjective well-being.*

Method

Study design

This study adopted a quantitative method and utilized a non-experimental correlational survey. Non-probability convenience sampling was used to gather participants who met predetermined sample criteria from the population of Indonesian citizens aged 18 years and above. The sample consisted of individuals from the research expert's social network who agreed to participate. Data were collected at a single point in time through cross-sectional design, and a questionnaire created on the Google Forms platform. The Google Forms link was distributed through social media channels such as WhatsApp. The data collection period spanned from April 25 to May 19, 2022. As an incentive for participation, ten selected respondents received OVO/Gopay credits worth 25,000 Indonesian rupiahs each.

Respondents

A total of 231 respondents participated in this study, consisting of 127 females (55%) and 104 males (45%), with age range between 18 and 67 years ($M = 24.75$, $SD = 10.02$). In

terms of educational background, 167 respondents reported high school as their last education accounting for 72.29% of the participants. The remaining participants had various educational levels, with 39 (16.88%) having an undergraduate degree, 18 (7.80%) having Master's degree, 5 (2.17%) Doctoral, 1 (.43%) Diploma, and 1 (.43%) Junior High School. Regarding marital status, 177 respondents (76.62%) were not married, while the remaining 54 (23.38%) were married. The analysis for ethnicity showed there were 127 (53.60%) Javanese, 37 (16.02%) Sudanese, 36 (15.56%) Betawi, and 35 participants (15.15%) from other ethnic groups, such as Bima, Bugis, Minang, Malay, Banjar, Madurese, Lampung, Chinese, Gayo, and Balinese. In terms of geographic distribution, 189 respondents (81.82%) were from Jakarta, Bogor, Depok, Tangerang, and Bekasi (Jabodetabek). Moreover, a total of 31 respondents (13.42%) hailed from various cities/regencies in Banten, West Java, Central Java, Yogyakarta, and East, while 11 (4.76%) were from Kalimantan, Sulawesi, Nusa Tenggara, and Papua.

Measuring instrument

Humility

The Relational Humility Scale adopted from Davis et al. (2011) was used to assess the humility levels of respondents. This scale was selected over other options due to its strong internal consistency and construct validity, and widespread usage in measuring humility within

social relationship contexts (McElroy-Heltzel et al, 2019). The scale consisted of 16 items, which evaluated the thoughts and feelings of respondents across three dimensions, namely global humility ("Most people would consider me a humble person"), superiority ("I think of myself as overly important"); and accurate self-view ("I know my weaknesses"). These items were rated using a five-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree). Due to low internal consistency among respondents ($\alpha = .69$), an exploratory factor analysis was conducted to retain only items with factor loadings above .40. Consequently, 11 items were used, leading to an acceptable internal consistency of .77. The scores of respondents ranged from 11 to 55, with greater scores indicating higher levels of humility.

Intellectual humility

The Comprehensive Intellectual Humility Scale adopted from (Krumrei-Mancuso & Rouse, 2016) was used to assess intellectual humility. This instrument was recommended for its strong internal consistency and construct validity (McElroy-Heltzel et al, 2019). It comprised 22 items that measured thoughts, feelings, and behavior in four dimensions, namely independence in intellect and ego ("When someone disagrees with ideas that are important to me, it feels as though I'm being attacked," unfavorable items), openness to correcting points of view ("I am open to revising my important beliefs in the face of new

information"), respect for the perspectives of others ("I can respect others, even if I disagree with them in important ways"), and a lack of excessive intellectual self-confidence ("My ideas are usually better than other people's ideas," unfavorable items). These items were rated using a five-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree). The scores fell within the range of 22 to 110 with greater scores indicating a higher level of intellectual humility. The Internal consistency among respondents was found to be satisfactory ($\alpha = .81$).

Altruistic attitude

A measuring tool developed by Bhatta et al (2021) was used to assess altruistic attitudes. This instrument comprised 5 statement items, exemplified by "I enjoy doing things for others." These Items were rated using a five-point Likert scale (ranging from 1 = strongly disagree to 5 = strongly agree). The internal consistency among respondents was initially at an acceptable level ($\alpha = .71$). However, to obtain better internal consistency, an exploratory factor analysis was conducted to exclude items with loading factors below .40, resulting in a satisfactory internal consistency ($\alpha = .82$). The scores obtained ranged from 4 to 20, with greater scores indicating a higher level of altruistic attitudes.

Prosocialness

A total of 16 items were adapted to assess prosocialness, specifically feelings and

behavior (Caprara et al., 2005). Prosocial feelings were gauged through items related to empathy for others, such as as “I am emphatic with those who are in need”. On the other hand, prosocial behavior were evaluated by items reflecting sharing, helping, caring, and fulfilling the needs of others. An example of such item is, “I do what I can to help others avoid getting into trouble.” Respondents were presented with various situations and asked to indicate their spontaneous responses using a five-point Likert scale (1 = never/almost never, 2 = rarely true, 3 = sometimes true, 4 = often true, and 5 = always/almost always true). The obtained scores fell within the range of 16 to 80, with greater scores indicating a higher level of prosocialness. The Internal consistency among respondents was found to be satisfactory ($\alpha = .90$).

Subjective well-being

The Mental Health Continuum—Short Form (MHC–SF) for Adults tool developed by Keyes was used to assess subjective well-being (Magyar & Keyes, 2019). This instrument consisted of 14 items that inquired about the range of feelings experienced by respondents over the last two weeks. It encompassed three dimensions, namely emotional well-being (“During the past two weeks, how often did you feel happy?”), social well-being (“During the past two weeks, how often did you feel that you had something important to contribute to society?”), and psychological well-being (“During the past

two weeks, how often did you feel that you liked most parts of your personality?”). Respondents expressed their answers using a six-point Likert scale (1 = never, 2 = once or twice, 3 = once a week, 4 = two or three times a week, 5 = almost every day, and 6 = every day). The obtained scores ranged between 6 to 84, with greater scores indicating a higher level of subjective well-being. The Internal consistency among respondents was found to be satisfactory ($\alpha = .91$).

Demographic variables

When analyzing the mediating role of altruistic attitudes and prosocialness in the relationship between humility and intellectual humility on subjective well-being, the research experts controlled for several demographic variables, including gender, age, education level, and marital status.

Data analysis

The JASP program was used to test the hypotheses through statistical analysis of data. Descriptive analysis was conducted to examine the characteristics of respondents concerning both demographic and study variables. Correlation analysis was also carried out to determine the relationship between these variables. Hierarchical regression analysis was separately conducted to investigate the impact of humility on altruistic attitudes, prosocialness, and subjective well-being, while excluding the effect of demographic variables. Another

hierarchical regression analysis was performed to examine the relationship between intellectual humility and altruistic attitudes, prosocialness, and subjective well-being, while excluding the effects of humility and demographic variables. In summary, mediation analysis was conducted to determine whether altruistic attitudes and prosocialness served as mediators in the relationship between humility and intellectual humility with subjective well-being.

Results

Table 1 presents the descriptive data and correlations among study variables. Considering Hypothesis 1, there was a positive correlation

between high levels of humility and intellectual humility with increased altruistic attitudes, prosocialness, and subjective well-being. The demographic variables, including gender, age, education, and marital status exhibited correlations. Specifically, gender, age, education, and marital status correlated with humility and subjective well-being, while age, education, and marital status correlated with intellectual humility. However, there was no significant correlations between the demographic variables and altruistic attitudes or prosocialness. Considering the correlations between the demographic and various study variables, these demographic factors would be controlled in the subsequent analyses.

Table 1

Descriptive Data and Correlation between Study Variables

Variable	M	SD	1	2	3	4	5	6	7	8	9
1 Gender	-	-	-								
2 Age	24.75	10.02	0.41**	-							
3 Education	-	-	0.29**	0.77**	-						
4 Marital status	-	-	0.38**	0.85**	0.79**	-					
5 Humility	40.30	5.72	0.33**	0.27**	0.31**	0.30**	-				
6 Intellectual humility	79.52	8.67	0.02	0.19**	0.26**	0.18**	0.27**	-			
7 Altruistic attitude	16.98	2.38	-0.03	0.08	0.08	0.07	0.23**	0.26**	-		
8 Prosocialness	64.91	8.27	-0.06	-2.27e-3	0.02	-0.04	0.29**	0.32**	0.63**	-	
9 Subjective well-being	60.28	11.98	0.42**	0.35**	0.32**	0.33**	0.51**	0.19**	0.14*	0.28**	-

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

To test Hypothesis 2, three hierarchical regression analyses were conducted to examine whether humility predicted altruistic attitudes, prosocialness, and subjective well-being after

controlling for demographic variables. The results showed that humility significantly predicted altruistic attitudes ($\Delta R^2 = .06, p < .001$), prosocialness ($\Delta R^2 = .11, p < .001$), and

subjective well-being ($\Delta R^2 = .13, p < .001$). Therefore, it explained approximately 6% to 13% of the variance in these variables, independent of the influence of demographic variables. This signified the acceptance of Hypothesis 2. The detailed results of these analyses are presented in Table 2.

To test Hypothesis 3, three hierarchical regression analyses were conducted to determine whether intellectual humility predicted altruistic attitudes, prosocialness, and subjective well-being after controlling for humility and demographic variables. The

results showed that intellectual humility significantly predicted altruistic attitudes ($\Delta R^2 = .04, p < .01$), and prosocialness ($\Delta R^2 = .06, p < .001$), but did not significantly predict subjective well-being ($\Delta R^2 = 0, p = .35$). Therefore, it accounted for approximately 4% to 6% of the variation in altruistic attitudes and prosocialness, beyond the variance explained by humility and demographic variables. This signified the acceptance of Hypothesis 3. The detailed results of these analyses are presented in Table 3.

Table 2

Humility Hierarchical Regression Results in Predicting Altruistic Attitudes, Prosocialness, and Subjective Well-Being

	<i>B</i>	<i>SE B</i>	β	<i>R</i> ²	ΔR^2
Altruistic attitudes					
Stage 1				.01	.01
Gender	-0.38	0.35	-0.08*		
Age	0.02	0.03	0.08		
Education	0.09	0.24	0.04		
Marital status	2.26e-3	0.78	4.02e-4		
Stage 2				.07	.06***
Humility	0.11	0.03	0.26***		
Prosocialness					
Stage 1				.01	.01
Gender	-1.05	1.21	-0.06*		
Age	0.08	0.11	0.10		
Education	0.86	0.83	0.12		
Marital status	-3.81	2.72	-0.20		
Stage 2				.13	.11***
Humility	0.53	0.10	0.37***		
Subjective well-being					
Stage 1				.22	.22***
Gender	7.98	1.56	0.33***		
Age	0.12	0.14	0.10		
Education	1.55	1.07	0.15		
Marital status	0.07	3.50	2.35e-3		
Stage 2				.35	.13***
Humility	0.83	0.12	0.40***		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Table 3

Intellectual Humility Hierarchical Regression Results in Predicting Altruistic Attitudes, Prosocialness, and Subjective Well-Being

	<i>B</i>	<i>SE B</i>	<i>B</i>	<i>R</i> ²	ΔR^2
Altruistic attitudes					
Stage 1				.07	.07**
Gender	-0.72	0.35	-.15*		
Age	0.03	0.03	.12		
Education	-0.04	0.23	-.02		
Marital status	-0.19	0.76	-.03		
Humility	0.11	0.03	.26***		
Stage 2				.11	.04**
Intellectual humility	0.06	0.02	.21**		
Prosocialness					
Stage 1				.13	.13***
Gender	-2.69	1.18	-.16*		
Age	0.12	0.11	.15		
Education	0.23	0.79	.03		
Marital status	-4.76	2.57	-.24		
Humility	0.53	0.10	.37***		
Stage 2				.19	.06***
Intellectual humility	0.25	0.06	.26***		
Subjective well-being					
Stage 1				.34	.34***
Gender	5.45	1.47	.23***		
Age	0.18	0.13	.15		
Education	0.56	0.98	.05		
Marital status	-1.40	3.21	-.05		
Humility	0.83	0.12	.40***		
Stage 2				.34	.00
Intellectual humility	0.07	0.08	0.05		

Note. * $p < .05$, ** $p < .01$, *** $p < .001$

Two main hypotheses were proposed regarding the mediating role of altruistic attitudes (H4) and prosocialness (H6) in the relationship between humility and subjective well-being. This study also hypothesized that altruistic attitudes (H5) and prosocialness (H7) mediated the relationship between intellectual humility and subjective well-being after controlling for humility. Mediation analysis was employed to test these hypotheses. A simple mediation model was

adopted, positing that "at least one causal antecedent X variable is proposed as influencing an outcome Y through a single intervening variable M" (Hayes, 2013, p. 86). In contrast to the traditional view, where a mediator (M) is tested only when variable X has a significant total effect on Y (Baron & Kenny, 1986), the current approach allows for testing mediation even when there is no direct impact (Hayes, 2009). This method permits mediation tests even when there is no

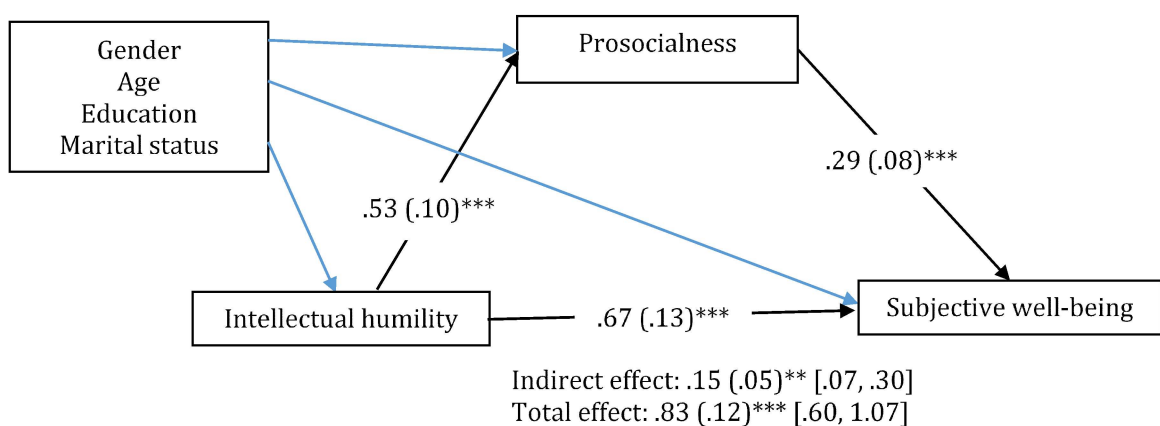
direct effect of intellectual humility on subjective well-being. To address the non-fulfillment of normality assumptions due to the small sample size, the bootstrap method was employed for each mediation analysis by resampling the data 1,000 times (Hayes, 2009; Preacher & Hayes, 2008).

Regarding the first set of hypotheses, the mediation analysis indicated that altruistic attitudes did not mediate the relationship between humility and subjective well-being, with an indirect effect of $B = .03$ $SE = .03$ $[-.03, .11]$, $p = .36$, signifying the acceptance of Hypothesis 4. However, the results showed that prosocialness partially mediated the relationship between humility and subjective well-being, with an indirect effect of $B = .15$ $SE = .05$ $[.07, .30]$, $p < .01$, signifying the acceptance of Hypothesis 6.

Concerning the second set of hypotheses, the mediation analysis showed that altruistic attitudes did not mediate the relationship between intellectual humility and subjective well-being by controlling for humility and demographic variables, with an indirect effect of $B = .01$ $SE = .02$ $[-.02, .06]$, $p = .45$, resulting in the rejection of Hypothesis 5. This indicated that prosocialness fully mediated the relationship between intellectual humility and subjective well-being, with an indirect effect of $B = .07$ $SE = .03$ $[.03, .14]$, $p < .01$, signifying the acceptance of Hypothesis 7. Detailed diagrams of the mediation models for prosocialness in both the relationship between humility and subjective well-being and intellectual humility and subjective well-being are presented in Figure 1 and 2, respectively.

Figure 1

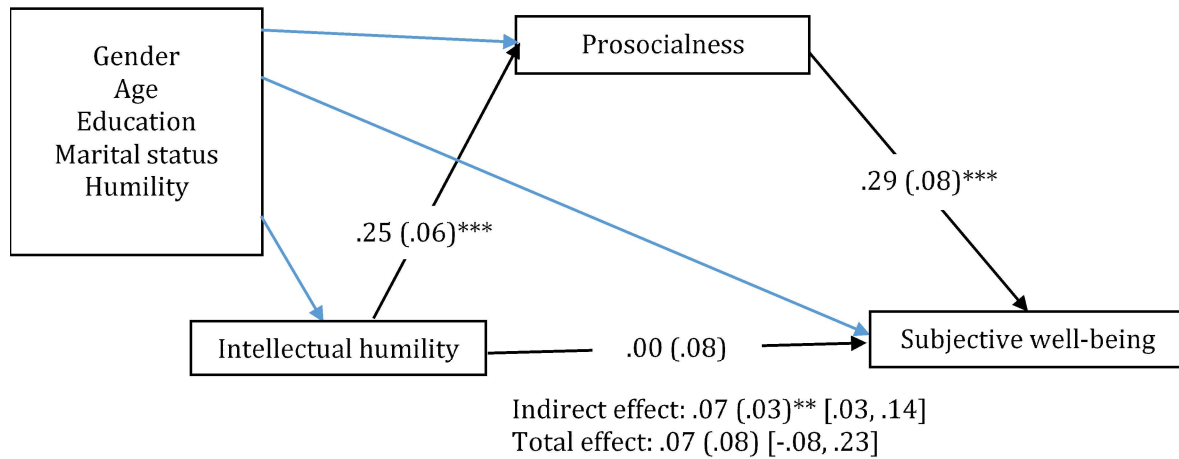
A Mediation Model that Places Prosocialness as a Mediator of The Relationship between Humility and Subjective Well-Being by Controlling for The Effect of Demographic Variables



Note. The values displayed were unstandardized coefficients (B) followed by Standard Errors (SE). Statistical significance was marked with an asterisk (* $p < .05$, ** $p < .01$, *** $p < .001$). The confidence interval (CI) was presented in square brackets and described 95% CI of the bootstrap result.

Figure 2

A Mediation Model that Posits Prosocialness as Mediators of The Relationship between Intellectual Humility and Subjective Well-Being by Controlling for Humility and The Effect of Demographic Variables



Note. The values displayed were unstandardized coefficients (B) followed by Standard Errors (SE). Statistical significance was marked with an asterisk (* $p < .05$, ** $p < .01$, *** $p < .001$). The confidence interval (CI) was presented in square brackets and described 95% CI of the bootstrap result.

Discussion

Positive psychology emphasizes the significance of studying virtues and their roles in individual well-being. In this context, exploring virtues such as humility and intellectual humility is essential to comprehend the mechanisms linking them to subjective well-being. This study hypothesized that altruistic attitudes and prosocialness mediated the relationship between these three variables. The results showed that after accounting for demographic variables, humility significantly influenced altruistic attitudes, prosocialness, and subjective well-being. Similarly, after controlling for humility and demographic variables, intellectual humility had an effect on altruistic attitudes and prosocialness but not on subjective well-being. In line with the

hypotheses, prosocialness served as a mediator between humility and subjective well-being, as well as intellectual humility and subjective well-being. In contrast to the hypotheses, altruistic attitudes did not mediate the relationship between humility and subjective well-being or between intellectual humility and subjective well-being.

The results contributed significantly to the literature on the relationship between virtues, specifically humility and intellectual humility, with subjective well-being, as supported by some previous studies (Jankowski et al, 2019; Krause, 2016; Krause et al, 2016), with prosocialness playing a mediating role. This present study also provided valuable insights into the limited literature on the relationship between intellectual humility

and subjective well-being, revealing a mediating mechanism through prosocialness.

This study supported the self-determination theory, suggesting subjective well-being was achieved when individuals fulfilled three basic needs, namely competence, connectedness, and autonomy, showed through prosocialness. Prosocialness, in this case, was driven by the need for competence, connectedness with others, and autonomy, fostering the values of humility and intellectual humility and ultimately enhancing subjective well-being. These results also supported the hypo-egoic perspective, positing that humility fostered prosocialness.

The conclusion that prosocialness could mediate the relationship between humility and intellectual humility with subjective well-being was in line with previous studies, emphasizing how high humility enhanced behaviors (Exline & Hill, 2012; LaBouff et al., 2012). Humility, characterized by low self-focus and high other-focus (Tangney, 2000; Wright et al., 2017), enhanced individuals inclination to help, a vital aspect of prosocialness (Caprara et al., 2005). Similarly, high intellectual humility, characterized by respect for perspectives of others (Krumrei-Mancuso & Rouse, 2016), fostered empathy, another component of prosocialness (Caprara et al., 2005). The results aligned with previous studies showing that high intellectual humility predicted high levels of empathy (perspective-taking and empathic concern) and several other prosocial values

(Krumrei-Mancuso, 2017). In addition, the influence of prosocialness on subjective well-being was consistent with previous studies, indicating that engaging in prosocial acts could enhance positive affect and meaningfulness (Martela & Ryan, 2016). Intellectual humility and humility, as antecedents of prosocialness, contributed to enhanced subjective well-being, aligning with previous studies highlighting the positive impact of intrinsic prosocial motives, rather than extrinsic prosocial motives, on life satisfaction, happiness, and psychological well-being (Gebauer et al., 2008; Vecina & Fernando, 2013). Humility and intellectual humility presented qualities related to intrinsic motives, motivating individuals to engage in prosocial behavior, further enhancing their subjective well-being.

The influence of humility and intellectual humility on altruistic attitudes were consistent with previous studies showing that humility was related to altruistic motives and actions (Hilbig et al., 2015; LaBouff et al., 2012). Intellectual humility was also found to impact altruistic values (Krumrei-Mancuso, 2017). However, this current study showed that altruistic attitudes did not significantly mediate the relationship between humility and intellectual humility with subjective well-being, as there was no significant effect of altruistic attitudes on subjective well-being. This differed from previous studies suggesting that altruistic attitudes could improve subjective well-being through increased life satisfaction and positive

affect (Kahana et al, 2013). This discrepancy could be attributed to the fact that subjective well-being was more closely related to experiential aspects, encompassing positive emotions as well as psychological and social life functioning (Magyar & Keyes, 2019). Attitudes did not necessarily translate into corresponding behavioral experiences, as there could be weak correlation between attitudes and specific behaviors (Ajzen, 2005). While high prosocial behavior in individuals might enhance subjective well-being (Martela & Ryan, 2016), the same might not necessarily apply to those with high altruistic attitudes, which could always lead to altruistic attitudes.

The results contributed to positive psychology by highlighting the relationship between humility, intellectual humility, and subjective well-being, with prosocialness acting as mediators. This study supported the Humility (Intellectual)-Health hypothesis, suggesting that humility and intellectual humility had psychological benefits for individuals (Bowes & Tasimi, 2023). The results also held theoretical implications, indicating that humility and intellectual humility benefited individuals and society at large (Bağ et al, 2022; Porter et al, 2022). Socially, these qualities could foster interpersonal relationship, as shown by concern for the well-being of others through prosocialness, ultimately leading to increased subjective well-being. From a practical standpoint, this study underscored the

importance of cultivating humility, intellectual humility, and prosocialness to build a society with high subjective well-being. Psychology practitioner seeking to enhance mental health in education, companies, and society should consider developing interventions that promote humility and intellectual humility (Worthington & Garrett, 2023). An effective approach could involve implementing self-affirmation, which encourage individuals to reflect on their values, and subsequently foster behaviors associated with intellectual humility (Hanel et al, 2023). However, since this study employed a correlational design, further investigation using experimental methods was warranted to strengthen the practical implications of these intervention strategies.

Conclusion

In conclusion, this study showed significant relationship between humility and intellectual humility with altruistic attitudes, prosocialness, and subjective well-being. It also identified a mediating mechanism in the relationship between humility, intellectual humility, and subjective well-being, facilitated by prosocialness. However, altruistic attitudes did not have a mediating effect in this relationship. After controlling for humility, prosocialness was found to mediate the relationship between intellectual humility and subjective well-being, while altruistic attitudes did not.

Suggestion

This study had several limitations that needed to be addressed. Firstly, the use of convenience sampling techniques could have resulted in a non-representative sample that did not accurately reflect the composition of the broader Indonesian society. For instance, the majority of respondents were unmarried, which did not align with the predominant marital status in the country (Kusnandar, 2022). Therefore, future investigations should consider the demographic composition in selecting respondents. Secondly, the correlational approach used in this study limited the ability to establish causal relationship between variables. Conducting longitudinal studies or experiments with repeated measures would allow for better understanding of potential causality and the underlying mechanism. Thirdly, relying solely on self-report, specifically for humility and intellectual humility, could introduce bias. Therefore, individuals with high humility might underreport the construct compared to those with lower scores (Hoyle & Mancuso, 2020). To address this, future studies could incorporate other measures such as informant reports from individuals close to respondents, observations of behavior reflecting humility, assessment of respondents' attraction to those with high humility, and the use of implicit measures (Hill & Laney, 2017; Hoyle & Mancuso, 2020).

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