From Intellectual Virtues to Flourishing: The Mediating Role of Virtuous Moral Character in Higher Education

Claudia E. Vanney & Belén Mesurado

From intellectual virtues to flourishing:
The mediating role of virtuous moral character in higher education

Prof. Claudia E. Vanney
Philosophy Institute, Universidad Austral, Buenos Aires, Argentina

Prof. Belén Mesurado
CONICET – Philosophy Institute, Universidad Austral, Buenos Aires, Argentina;
Facultad de Ciencias Biomédicas, Universidad Austral, Buenos Aires, Argentina.

Abstract

Some scholars argue that flourishing is a central aim of education, emphasising its role in shaping students' character, purpose, and relationships. This paper presents empirical research with university students in Argentina that examines how intellectual virtues relate to flourishing through the mediation of a virtuous moral character. Studies 1 (N = 323) and 2 (N = 319) validated a Virtuous Moral Character Scale, and Study 3 (N = 321) tested the proposed theoretical model. Results reveal that intellectual virtues are correlated with virtuous moral character (24% of variance explained), which in turn is associated with human flourishing (19% of variance explained), underscoring the formative importance of intellectual virtues in higher education.

Introduction

Recent scholarship has increasingly argued that flourishing should be understood as a fundamental goal of education (Kristjánsson, 2020, 2025; Kristjánsson & VanderWeele, 2024). Although flourishing has been conceptualised in various ways across different traditions (Diener, 1984; Keyes, 2002; Mesurado et al., 2018; Ryff & Keyes, 1995; Seligman, 2011; Weziak-Bialowolska et al., 2019), most accounts agree that it can be seen as the intrinsically valuable end of human life: living in ways that develop our capacities, express virtue, and align with our deepest values. It involves engaging in meaningful relationships and activities, finding authentic purpose through autonomous choices, and realising our potential over the course of a whole life. Moreover, flourishing depends on both our own contributions and supportive environments that enable individuals and communities to thrive.

Central to this view is the claim that schools play a decisive role in cultivating virtues and fostering students' character development, thereby shaping their sense of purpose and their relationships with others. This emphasis aligns with international frameworks—most notably those advanced by the OECD—which highlight the importance of character qualities, ethical competencies, and social-emotional dispositions as key educational outcomes (Taguma & Barrera, 2019). Together, these perspectives underscore a growing recognition that education should extend beyond the transmission of knowledge and skills

to include the cultivation of the virtues and character strengths that enable students to lead flourishing lives.

In higher education, a parallel conversation has emerged about the university's responsibility to foster character and virtue in its students (Brant et al., 2022). Arthur (2024) argues that universities—regardless of their particular traditions or institutional identities—are uniquely positioned to support the development of moral and intellectual virtues that enable students to lead purposeful and integrated lives. Building on the *Jubilee Centre's Framework for Flourishing*[1], he contends that character formation in universities can be pursued through intentional curricular design, opportunities for practical reasoning, and the cultivation of communities that model and reinforce virtuous behaviour. On this view, universities are not merely providers of disciplinary knowledge or professional training, but are formative institutions that can nurture the dispositions and commitments necessary for graduates to flourish personally, ethically, and civically.

While current discussions on character in higher education tend to emphasize moral character, they often give comparatively less attention to the development of intellectual character. The notion of character typically adopted in these debates is rooted in virtue ethics and foregrounds the role of moral virtues in public, civic, and professional life. Yet, it has been argued that—'because our minds tend to lead our actions' (Dow, 2013, p. 22)—the quality of our intellectual character may, in an important sense, surpass that of our moral character due to its capacity to shape the overall direction of our lives. This perspective invites a broader and more integrated account of character, one that recognises the interdependence of moral and intellectual virtues and the role both play in enabling students to flourish within and beyond university life.

Against this conceptual backdrop, advancing research on character in higher education requires not only clearer theorisation but also robust empirical tools capable of capturing its key dimensions. If both moral and intellectual character are to be understood as central contributors to students' flourishing, then reliable and valid measures of these constructs become essential for examining their interrelations and developmental pathways.

A growing body of work has sought to clarify the nature of intellectual virtues, typically understood as the dispositional qualities that enable individuals to pursue truth responsibly and think well (Zagzebski, 1996). These virtues include traits such as curiosity, autonomy, attentiveness, carefulness, open-mindedness, and intellectual humility—qualities that regulate how individuals inquire, evaluate evidence, and form beliefs. Recent efforts in the field have also produced instruments to operationalise these constructs, such as the intellectual humility scale developed by Leary et al. (2017) and the Virtuous Intellectual Character Scale (VICS), which captures five core intellectual virtues following the framework proposed by Mesurado and Vanney (2024). Together, these developments provide an emerging empirical foundation for studying intellectual character and its potential contribution to human flourishing.

The notion of moral character has likewise been conceptualised in multiple ways. Within positive psychology, moral character is often approached through specific trait-like dispositions—such as gratitude, forgiveness, compassion, and honesty—that support

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[1] Cf. https://www.jubileecentre.ac.uk/wp-content/uploads/2023/08/Character_Education_in_Universities_Final_Edit-1.pdf

prosocial behaviour and interpersonal flourishing (Michael Furr et al., 2022; Peterson & Seligman, 2004). In contrast, a classical virtue-ethical framework grounds moral character in the four cardinal virtues of prudence, justice, fortitude, and temperance, understood as hinge virtues that provide the foundational structure upon which other moral virtues depend (Pieper, 2017; Stenberg, 2025). From this perspective, the cardinal virtues function as structuring dispositions that integrate and orient a wide range of secondary moral virtues. Many of the dispositions studied in positive psychology can thus be interpreted as specific expressions of the cardinal virtues: prudence encompasses practical wisdom; justice includes gratitude, kindness, fairness, and forgiveness; fortitude is expressed in perseverance, courage, resilience, and determination; and temperance contains virtues such as modesty, humility, self-control, and emotional regulation. Rather than replacing the specific virtues identified by positive psychology, the cardinal virtues provide the normative framework that organises and lends coherence to them within a unified conception of moral character.

Across these perspectives, a recurrent methodological challenge emerges in developing an instrument capable of assessing virtuous moral character in a way that is both sufficiently comprehensive to reflect its multidimensional nature and concise enough to be practical in educational settings. Although there are promising efforts in this direction (López González et al., 2023; Rodríguez Barroso et al., 2025), the field still lacks a brief, reliable, and theoretically grounded measure of virtuous moral character.

Taken together, these conceptual developments point to the need for improved instruments to support empirical research that clarifies how the intellectual and moral dimensions of character jointly contribute to students' flourishing. Addressing this gap, the present study examines the relationships among intellectual virtues, virtuous moral character, and human flourishing in a university context. To this end, we first develop and validate a brief, theoretically grounded measure of virtuous moral character, and subsequently test a model in which intellectual virtues predict flourishing indirectly through their contribution to moral character.

In what follows, we present three complementary studies that advance this line of inquiry. The discussion section later returns to these conceptual and empirical threads, integrating the findings into a unified account of how intellectual and moral virtues support flourishing in higher education.

The aim of this article is therefore twofold: (1) to validate a scale that assesses virtuous moral character across the four moral virtues: justice, fortitude, temperance, and prudence; and (2) to test a theoretical model proposing that intellectual humility and virtuous intellectual character are associated with moral character, and that all these variables, in turn, are associated with human flourishing.

To address the first aim, Study 1 describes the development of the new scale and examines its construct validity and reliability, and Study 2 confirms its structure and evaluates its convergent and divergent validity, as well as its reliability levels. To address the second aim, Study 3 tests the proposed theoretical model.

Study 1

Method

Development of the virtuous moral character scale

Based on a classical philosophical background, 23 items were developed to assess four moral virtues: justice, fortitude, temperance, and prudence y two senior researchers (a psychologist specializing in moral development and psychometrics, and a philosopher specializing in ethics).

For example, the statements developed were: "I usually take time to reflect so I can recognize what is truly good in each situation" (prudence), "I make an effort to recognize and respect what each person deserves" (justice), "I try to face difficult situations even when I feel afraid" (fortitude), and I try not to do things solely because I feel like it" (temperance). Participants should rank each statement on a five-point Likert scale from 1 (not at all like me) to 5 (very much like me). Mean scores will be computed for each dimension, and a global flourishing score will be obtained by averaging all items.

To measure the content validity, 5 Argentinean researchers with experience on the topic were included as expert judges. The researchers assess (1) how well each proposed item reflects each moral virtue and (2) how clearly each one is phrased. The results showed 100% agreement among the judges on 23 items regarding relevance and clarity.

Procedure

First, the administrative authorities of an Argentine university were approached and briefed about the aims of the project. Following their positive response, they enabled contact with the academic program coordinators. After receiving the necessary authorization, a researcher visited the classrooms during scheduled class sessions to explain the study and invite students to take part. Those who agreed to participate provided written informed consent and were assured that their involvement was voluntary and anonymous, with no financial or other incentives offered.

Participants

Study 1 included 323 university students, of whom 187 (57.9% of the sample) identified as women, 135 (41.8% of the sample) as men, and one (0.3% of the sample) as non-binary. Participants' ages ranged from 18 to 24 years (M = 20.01, SD = 1.14). All participants were students enrolled in 27 different academic programs, including Medicine, Psychology, Design, and Law, among others.

Data Analysis

In order to examine the construct validity of the new scale, an exploratory factor analysis (EFA) will be conducted. Principal axis extraction with varimax rotation will be used. Three procedures will be used to determine the number of factors: parallel analysis, the Kaiser criterion (eigenvalues > 1), and the scree plot. The tolerance and the variance inflation factor (VIF) will be used to test collinearity among the items.

The item–total correlations and the internal consistency, as measured by the McDonald's omega coefficient, will be used to assess reliability. All analyses will be performed using SPSS version 29 and JASP.

Results

Construct Validity

To measure the construct validity, an exploratory factor analysis (EFA) was conducted using the principal axis extraction method and varimax rotation. The Bartlett's test of sphericity yielded a value of 1443.65 *(df = 136, p = .001)*, and the Kaiser–Meyer–Olkin (KMO) coefficient was .85; these indicators indicate that the associations among the items in the scale were strong enough to justify proceeding to the subsequent analyses.

According to parallel analysis in JASP, eigenvalues, and the scree plot in SPSS, four dimensions were identified: justice, fortitude, temperance, and prudence. Items with factorial complexity or factor loadings below .35 were excluded (Worthington & Whittaker, 2006). Consequently, the new scale includes 17 items: 5 assess prudence, and 4 assess each of the remaining moral virtues, justice, fortitude, and temperance. The prudence subscale explained 13.02% of the variance, the fortitude subscale explained 11.21% of the variance, the temperance subscale explained 10.65% of the variance, and the justice subscale explained 7.88%. In summary, the instrument explained 42.81% of the variance.

Table 1 presents the factor loadings, tolerance values, and variance inflation factors (VIFs) for each item. All tolerance values exceeded .20, and all VIFs were below 5, indicating that collinearity was not a concern.

Table 1. Study 1: Factor loading, tolerance and VIF

	Prudence	Fortitude	Temperance	Justice	Tolerance	VIF
Item 1	.729				.61	1.64
Item 2	.594				.61	1.64
Item 3	.555				.63	1.59
Item 4	.685				.64	1.57
Item 6	.503				.72	1.39
Item 15		.780			.55	1.81
Item 16		.746			.52	1.91
Item 17		.542			.69	1.45
Item 18		.382			.73	1.37
Item 20			.681		.74	1.35
Item 21			.577		.70	1.43
Item 22			.646		.68	1.48
Item 23			.488		.83	1.20
Item 8				.430	.73	1.37
Item 9				.634	.73	.1.37
Item 10				.550	.71	1.41
Item 11				.437	.78	1.28

Figure 1. Study 1: Scree Plot for the Exploratory Factor Analysis
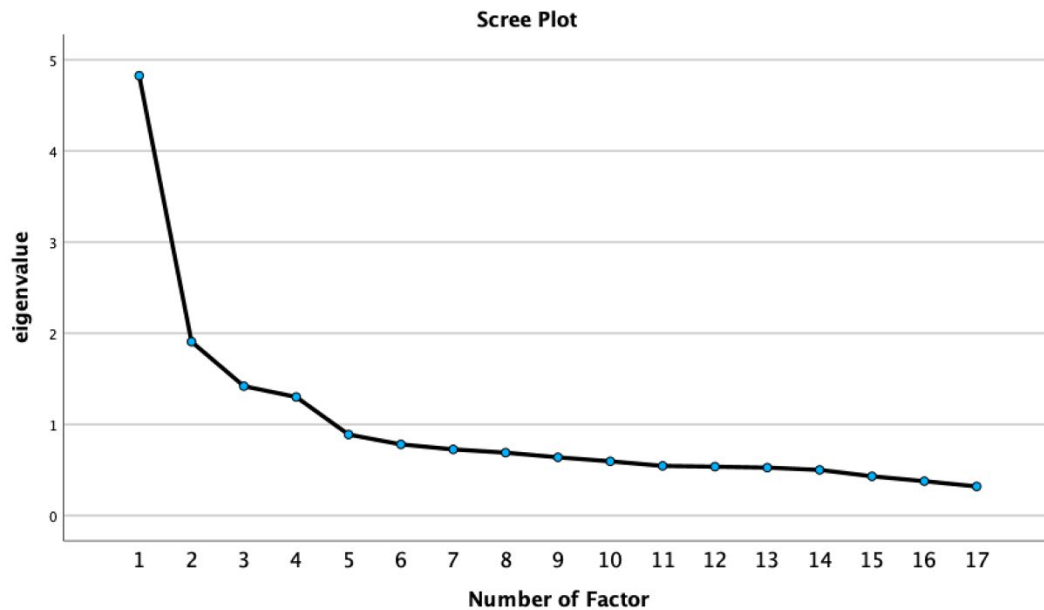
Reliability

The corrected item–total correlations are presented in Table 2. All items obtained a good item–total correlation with value between .37 and .56. In addition, the McDonald's omega coefficient for the total score of the instrument was .85, and .79 for the prudence subscale, .76 for the fortitude subscale, and .67 for the justice and temperance subscales, respectively. The overall scale showed strong reliability, and the subscale demonstrated reliability within an acceptable range.

Table 2. Study 1 and Study 2: Corrected Item-Total Correlation

	Study 1: Corrected Item-Total Correlation	Study 2: Corrected Item-Total Correlation
Item 1	.484	.491
Item 2	.536	.532
Item 3	.556	.600
Item 4	.461	.439
Item 6	.432	.388
Item 15	.499	.531
Item 16	.545	.589
Item 17	.438	.469
Item 18	.448	.480
Item 20	.433	.463
Item 21	.446	.486
Item 22	.510	.473
Item 23	.366	.355

Item 8	.470	.514
Item 9	.388	.404
Item 10	.480	.488
Item 11	.379	.398

Study 2

Method

Procedure

Study 2 followed the same procedure described in Study 1.

Participants

Study 2 included 319 university students, of whom 190 (59.6% of the sample) identified as women, and 129 (40.4% of the sample) as men. Participants' ages ranged from 19 to 24 years (M = 20.00, SD = 1.08). All participants were students enrolled in 25 different academic programs, such as Medicine, Psychology, Design, and Law, among others.

Instruments

Virtuous Moral Character Scale. The 17-item Virtuous Moral Character Scale was used to measure prudence, justice, fortitude, and temperance.

Honesty and prudence. We employed the Honesty and Prudence subscale from the Values in Action Inventory of Strengths (Peterson et al., 2005). This subscale consists of 10 items, each subscale (e.g., honesty: "My friends say I am authentic or transparent", and prudence: "I always think before I speak.") rated on a 5-point Likert scale ranging from 1 ("not at all like me") to 5 ("very much like me"). The honesty and prudence scores were calculated by averaging participants' responses across the ten items. In the present study, the two subscales demonstrated good internal consistency, with a McDonald's omega coefficient of .74 for honesty and .77 for prudence.

Perseverance. Perseverance was measured through the Perseverance of Effort subscale from the original Grit Scale (Grit-O), created by Duckworth et al. (2007) and later adapted for use in Argentina by Tortul et al. (2020). The Grit-O consists of 12 items that capture an individual's sustained effort and enduring passion toward long-term objectives. The instrument includes two six-item components—Consistency of Interest and Perseverance of Effort. Participants respond on a 5-point Likert scale ranging from 1 (not at all like me) to 5 (very much like me). The McDonald's omega coefficient for this sample was .78.

Data Analysis

Multivariate normality was examined with Mardia's test using JASP. A confirmatory factor analysis was then conducted to verify the proposed five-factor structure of the Virtuous Moral Character scale. Model fit was evaluated using several indices: the chi-square statistic (χ^2), the χ^2/df ratio, the comparative fit index (CFI), the Tucker–Lewis

index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean squared residual (SRMR).

Convergent validity will be examined through the average variance extracted (AVE), which reflects the extent to which the items adequately capture each dimension of social, psychological, emotional, moral, or intellectual well-being. An AVE value exceeding 0.50 indicates that the construct accounts for more than half of the variance in its indicators, supporting satisfactory convergent validity (Hair et al., 2019). In addition, convergent validity was evaluated by analyzing the correlations between the four dimensions of the Virtuous Moral Character Scale and the measures of honesty, prudence, and perseverance. It is expected that prudence, justice, fortitude, and temperance will show positive associations with the honesty, prudence, and perseverance subscales.

The heterotrait-monotrait (HTMT) ratio of the correlations will be used to test the discriminant validity. A value of HTMT greater than .85 or .90 indicates inadequate discriminant validity (Hair et al., 2019).

Results

The Mardia's test will be used to assess multivariate normality in JASP, the results indicated significant multivariate skewness, $\chi^2(969) = 35.43$, $p < .001$, and significant multivariate kurtosis, $z = 379.45$, $p < .001$, indicating a violation of the assumption of multivariate normality.

To test a 4-factor structure of the Virtuous Moral Character scale, a confirmatory factor analysis was conducted in MPLUS 9. Because the data did not have a normal distribution MLM (Maximum Likelihood Mean-adjusted) estimator was used.

Model fit was first assessed using the chi-square statistic, which was significant, $\chi^2(113) = 147.62$, $p < .001$, suggesting some degree of discrepancy between the model and the observed data. Given the well-known sensitivity of this statistic to sample size, other goodness-of-fit indices were also considered to evaluate the adequacy of the model. The relative chi-square was 1.30 (χ^2/df), a value below the recommended upper limit of 2, which is generally interpreted as indicative of a satisfactory fit (Wang & Wang, 2020). Additional indices supported this conclusion: the comparative fit index (CFI) reached .95, the Tucker–Lewis index (TLI) was .94, the root mean square error of approximation (RMSEA) was .04, and the standardized root mean squared residual (SRMR) was .05. Following conventional guidelines, CFI and TLI values of .90 or greater are considered evidence of acceptable model fit (Wang & Wang, 2020).

Convergent validity

The AVE index was used to test the convergent validity. The values obtained were prudence/phronesis AVE = .41; justice AVE = .34; fortitude AVE = .50; and temperance AVE = .32. The factors had slightly lower AVE values than those suggested in the literature, with the exception of fortitude, which arrived at .50 (Hair et al., 2014).

Positive and statistically significant correlations (p < .001) were observed among all the study variables. Prudence subscale of Virtuous moral character scale showed moderate associations with honesty (VIA; r = .36) and prudence (VIA; r = .54) subcales of value in

action, and perseverance (r = .35). Fortitude subscale of VMC was moderately correlated with honesty (VIA; r = .46) and showed its strongest relationship with grit (r = .52). Temperance subscale of VMC displayed a moderate prudence (VIA; r = .392), and a weaker correlation with honesty (VIA; r = .23) subscale of VIA. The Justice subscale of VMC was moderately related to honesty (VIA; r = .36) and grit (r = .26) (see Table 3).

Discriminant validity

The heterotrait-monotrait (HTMT) ratio of the correlations was conducted to measure discriminant validity. The HTMT value between prudence and justice, was .62; prudence and fortitude, was .49; prudence and temperance, was .66; justice and fortitude, was .62; justice and temperance, was .66; and fortitude and temperance, was .57. Because no HTMT value exceed .85 or .90 the presence of discriminant validity was confirmed.

Reliability

The corrected item–total correlations are presented in Table 2. All items obtained a good item–total correlation with value between .37 and .60. In addition, the McDonald's omega coefficient for the instrument's total score was .88, and .78 for the prudence subscale, .67 for the justice subscale, .80 for the fortitude subscale, and .65 for the temperance subscale. High reliability was found for the total scale, along with adequate reliability for the subscale.

Study 3

Method

Procedure
Study 3 followed the same procedure described in Studies 1 and 2.

Participants

Study 3 included 321 university students, of whom 191 (59.5% of the sample) identified as women, 129 (40.2% of the sample) as men, and one (0.3%) as non-binary. Participants' ages ranged from 18 to 24 years (M = 19.96, SD = 1.06). All participants were students enrolled in 27 different academic programs, including Medicine, Psychology, Design, and Law, among others.

Instrument

Virtuous Moral Character Scale. The 17-item Virtuous Moral Character Scale was used to measure prudence, justice, fortitude, and temperance. In the present sample, the overall scale demonstrated good internal consistency (McDonald's omega = .85).

Virtues Intellectual Character Scale. Virtuous intellectual character was assessed using a 23-item measure validated by Mesurado and Vanney (2024), which draws on virtue-based self-report assessments proposed by Baehr (2021). This scale evaluates five core dimensions of intellectual virtue: attentiveness (e.g., "I enjoy paying attention"), open-

mindedness (e.g., "I like to hear different perspectives"), curiosity (e.g., "The world is a fascinating place to discover"), carefulness (e.g., "I check my work for errors before turning it in"), and intellectual autonomy (e.g., "When someone gives me advice, I like to think it through for myself"). Participants rated each item using a five-point Likert-type scale ranging from 1 (not at all like me) to 5 (very much like me). Mean scores were calculated for each virtue, with higher values indicating stronger virtuous intellectual character. In the present sample, the overall scale demonstrated good internal consistency (McDonald's omega = .80).

Humility. Intellectual humility was assessed using a six-item instrument originally created by Leary and colleagues (2017). The measure assesses a single underlying dimension and consists of items such as "I accept that my beliefs and attitudes may be wrong". Responses were given on a five-point Likert-type scale ranging from 1 (not at all like me) to 5 (very much like me). An overall score was computed by averaging the items, with higher values indicating greater intellectual humility. In the present study, the scale showed strong internal consistency (McDonald's omega = .75).

Flourishing. Human flourishing was assessed using a 12-item short form of the Multidimensional Flourishing Scale developed by Mesurado (2021). This instrument captures three core facets of flourishing: social well-being (e.g., "I am committed to addressing the problems faced by society"), psychological well-being (e.g., "I find my life to be full of meaning"), and emotional well-being (e.g., "sad–happy"). Items assessing social and psychological well-being were rated on a five-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). Emotional well-being was measured through a five-point semantic differential format anchored by opposite affective descriptors, from 1 (negative emotions) to 5 (positive emotions). Participants selected the response that best reflected how they had felt during the previous two weeks (e.g., from sad to happy). Mean scores were computed for each subdimension, and an overall flourishing score was obtained by averaging all items. In the present sample, the scale demonstrated strong internal consistency (McDonald's omega = .82).

Data Analysis

Multivariate normality was examined with Mardia's test using JASP. A structural equation model was conducted on the theoretical model, which proposes that intellectual humility and virtuous intellectual character are associated with moral intellectual virtues, and that all these variables, in turn, are associated with flourishing in life. Model fit was evaluated using several indices: the chi-square statistic (χ^2), the χ^2/df ratio, the comparative fit index (CFI), the Tucker–Lewis index (TLI), the root mean square error of approximation (RMSEA), and the standardized root mean squared residual (SRMR).

Results

To evaluate the model, we conducted a Structural Equation Modeling analysis. Mardia's test will be used to assess multivariate normality in JASP, the results indicated significant multivariate skewness, $\chi^2(20) = 61.49$, $p < .001$, and significant multivariate kurtosis, $z = 4.82$, $p < .001$, indicating a violation of the assumption of multivariate normality.

Because the data did not have a normal distribution, the MLM (Maximum Likelihood Mean-adjusted) estimator was used.

The tested model is just identified with zero degrees of freedom; consequently, global fit indices indicate a perfect fit by definition and were therefore not interpreted. The results suggest that intellectual humility (β = .23, $p \leq .001$, 95% CI [.11, .36]) and virtuous intellectual character (β = .33, $p \leq .001$, 95% CI [.22, .44]) are positively associated with virtuous moral character. In turn, virtuous moral character (β = .44, $p \leq .001$, 95% CI [.33, .56]) is also associated with flourishing in life. However, intellectual humility (β = -.03, p = .96, 95% CI [-.14, .13]) and virtuous intellectual character (β = -.01, p = .96, 95% CI [-.14, .12]) are not directly associated with human flourishing.

Moreover, there are indirect effects from intellectual humility (β = .09, p = .005, 95% CI [.03, .16]) and virtuous intellectual character (β = .20, $p \leq .001$, 95% CI [.12, .30]) on flourishing in life through virtuous moral character (see Figure 2). The model explained 24% of the variance in virtuous moral character and 19% of the variance in human flourishing.

Figure 2. Theoretical Model Tested
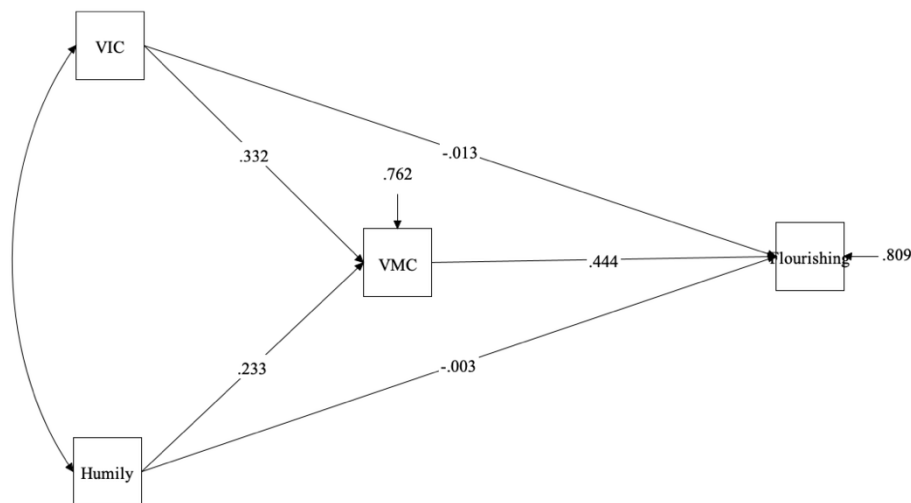
Note:
VIC = virtuous intellectual character, VMC = Virtuous moral character

Discussion

The purpose of this study was twofold: (i) to validate an instrument for assessing virtuous moral character in college environments, and (ii) to examine the relationships between virtuous character (both intellectual and moral) and human flourishing. We hypothesized that virtuous intellectual character would be directly associated with virtuous moral character, and that virtuous moral character would, in turn, be directly associated with human flourishing. Moreover, we expected virtuous moral character to mediate between virtuous intellectual character and human flourishing.

This research was situated within a pluralistic epistemological framework that integrates philosophical, psychological, and educational perspectives on character and flourishing. Philosophically, we draw on two distinct traditions: virtue ethics, which conceptualizes moral character as the cultivation of virtues that orient action toward the good, and virtue epistemology, which frames intellectual character as a set of traits that guide the responsible and truth-oriented conduct of inquiry. Psychology provides the empirical foundation for translating these philosophical accounts into measurable constructs, offering validated methods for assessing dispositional tendencies, modeling their interrelations, and examining their implications for well-being. From an educational standpoint, the study is situated within the developmental context of higher education, where both moral and intellectual virtues should be actively shaped through curricular, pedagogical, and relational experiences. By bringing these perspectives together, the study advances an empirically grounded and conceptually robust account of how the different dimensions of character contribute to human flourishing in university settings. At the same time, such interdisciplinary integration must remain mindful of the specific epistemic aims and methodological constraints that characterize each discipline involved, ensuring that their insights are brought into dialogue without erasing their differences. This conceptual grounding also informed the design of the empirical instruments developed in the present research.

Guided by this framework, Studies 1 and 2 aimed to design and validate an instrument for assessing virtuous moral character. To develop a brief (17-item) yet comprehensive measure, the scale was structured around four dimensions—prudence, justice, temperance, and fortitude—traditionally regarded as the cardinal virtues. According to Thomas Aquinas, 'all the other virtues among which one ranks before another, are reducible to the above four' (Summa Theologiae I–II, q.61, a.2, ad 3).

Unlike previous studies drawing on the same theoretical framework (Rodríguez Barroso et al., 2025), our scale prioritised operationalising the core features of these four virtues rather than their relation to professional competencies, in order to achieve stronger psychometric performance.

Beyond the empirical validation, it is important to situate this classical taxonomy within contemporary virtue research. Building on this classical framework, it is also possible to interpret contemporary virtue vocabularies (Michael Furr et al., 2022) as specific manifestations of broader moral genera rather than as entirely independent categories. Aquinas's claim that other virtues are reducible to prudence, justice, temperance, and fortitude provides a theoretical basis for this analytic move, but the reduction should be framed cautiously. We propose this theoretical framework as a heuristic taxonomy, not an ontological erasure of the particularities of modern virtues. On this reading, *honesty* can be understood as implicating prudence (judgment about truthful conduct) and fortitude (speaking the truth even when it is hard); *compassion* carries elements of justice (recognition of others' needs) and fortitude (sustained moral responsiveness); *fairness* maps most directly onto justice; *loyalty* manifests aspects of fortitude and prudential judgment while sometimes standing in tension with impartial justice; *respect* aligns with justice and temperance; and *purity*—to the extent it denotes self-restraint and moderation—falls under temperance, though it often bears culturally specific meanings that exceed the classical taxonomy. Accordingly, we employ the four-cardinal-virtue framework as a conceptually useful organizing schema that motivates empirical tests

rather than taking them as a definitive reduction that obviates the descriptive and normative work of contemporary virtue constructs.

Having clarified the structure of moral character, we now turn to the measurement of flourishing. Several instruments have been developed, each reflecting different conceptual emphases and research aims. Kristjánsson (2025) identifies nine recurrent elements in the background literature that appear to constitute core components of flourishing. The Multidimensional Flourishing Scale developed by Mesurado et al. (2018) was selected for this study because it provides a brief yet theoretically aligned measure that incorporates many of these elements. For example, the scale includes items related to the continuous and active nature of flourishing (e.g., 'I am committed to my daily activities'), its relational and community-oriented dimensions (e.g., 'I feel like an important member of society'; 'I am committed to addressing the problems faced by society'), and the realization of one's capacities rather than mere success (e.g., 'I am happy with my current lifestyle'). It also captures aspects related to meaning and purpose ('I find my life to be full of meaning'), the importance of external conditions ('I am happy with my family'), and the orientation toward values greater than oneself ('I believe that my work contributes to the well-being of my society'). Overall, the scale offers an empirically efficient and conceptually coherent tool that aligns well with the multidimensional understanding of flourishing proposed in the philosophical literature.

With both constructs rigorously defined and empirically validated, Study 3 examined whether virtuous moral character mediates the relationship between virtuous intellectual character and human flourishing. Previous research had already explored this mediating function for a single virtue—honesty (Mesurado & Vanney, 2025). The present model extends those findings by considering moral character as a multidimensional construct grounded in the cardinal virtues rather than as an isolated trait. This broader approach allows for a more comprehensive and theoretically coherent assessment of how moral dispositions, taken as an integrated whole, contribute to the pathway from intellectual virtues to flourishing.

Several limitations should be acknowledged when interpreting these findings. First, all data were collected from university students in Argentina, which limits the generalizability of the results. Cultural, educational, and socio-economic contexts shape both character development and conceptions of flourishing; therefore, the patterns observed in this study may not fully apply to students in other regions or institutional settings. Future research should examine whether the structure of virtuous moral character and its mediating role between intellectual character and flourishing replicate across diverse cultural contexts. Second, the cross-sectional design used in Study 3 precludes strong causal inferences. Although the proposed model is theoretically grounded, longitudinal or experimental designs are needed to determine the temporal ordering of the associations and to test whether growth in intellectual virtues indeed precedes and promotes growth in moral character, ultimately contributing to flourishing. Such designs would provide a more rigorous assessment of the developmental pathways implied by the mediation model.

Taken together, these findings underscore the importance of understanding character as a multidimensional construct whose intellectual and moral dimensions jointly support human flourishing. By integrating classical virtue theory with contemporary psychological measurement, this study offers a framework capable of guiding both future

research and educational practice. Although further work is needed—across cultures, contexts, and time—to test the stability and causal direction of these relationships, the present evidence suggests that cultivating intellectual virtues may foster flourishing most effectively when embedded within a broader moral orientation. In this sense, the study affirms a central insight of the virtue tradition: flourishing is not merely achieved through skill or knowledge, but through the harmonious development of the whole person. This integrated approach not only enriches our theoretical understanding but also offers a practical roadmap for higher education: cultivating both intellectual and moral virtues may be a key pathway toward fostering students who are not only capable but genuinely flourishing.

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