

The Intellectual Justice Scale: Development and Validation of a Self-Report Measure

Abstract

Intellectual justice, the disposition to engage fairly with knowledge and those who produce it, has received growing attention in philosophy and education, yet no validated self-report measure exists. This research describes the development and validation of the Intellectual Justice Scale (IJS), a 9-item measure with three subscales (Testimonial Justice, Hermeneutical Justice, and Intellectual Action) grounded in the framework of epistemic injustice (Fricker, 2007). Being able to measure individual differences in intellectual justice is an important step toward studying whether this virtue varies across people and whether it can be cultivated through education or targeted interventions.

Scale development followed established guidelines (Carpenter, 2017; Hinkin, 2005; Morgado et al., 2017). An initial pool of 66 items was developed based on Fricker's (2007) theoretical framework, refined through expert input from philosophers specialising in intellectual justice, and evaluated through several rounds of iterative review. A pilot study (N = 100) further reduced the pool using descriptive item statistics and qualitative judgment, resulting in 22 items carried forward for the main studies.

In Study 1 (N = 404), exploratory factor analysis supported a three-factor structure. Item selection was conducted independently by two researchers, one using statistical criteria and one using conceptual criteria, and both selections converged on the same nine items, three per subscale. The 9-item scale showed good internal consistency ($\alpha = .84$, $\omega = .87$), with subscale reliabilities ranging from $\alpha = .72$ to $.74$.

In Study 2 (N = 401), confirmatory factor analysis was used to evaluate the factor structure in an independent sample. A higher-order model, in which Testimonial Justice, Hermeneutical Justice, and Intellectual Action are the dimensions of a single overarching intellectual justice construct, showed good fit (robust CFI = .964, robust TLI = .946, robust RMSEA = .068, SRMR = .037). All factor loadings were significant ($p < .001$). The scale again showed good reliability ($\alpha = .82$, $\omega = .85$).

To assess construct validity, participants additionally completed the Intellectual Humility Scale (Leary et al., 2017), the HEXACO-60 personality inventory (Ashton & Lee, 2018), the Social Justice Scale (Torres-Harding et al., 2011), and the Justice Sensitivity Short Scales-8 (Groskurth et al., 2023). As expected, the IJS showed positive associations with all validity measures. The strongest associations were found with social justice attitudes ($r = .82$) and intellectual humility ($r = .67$), reflecting meaningful conceptual overlap with broader justice orientations and related intellectual virtues. Associations with personality traits were moderate (Openness to Experience: $r = .50$; Agreeableness: $r = .49$) to weak (Honesty-Humility: $r = .29$; Conscientiousness: $r = .21$), and justice sensitivity showed a similarly weak association ($r = .27$), suggesting that intellectual justice is not simply a reflection of broader personality dimensions. Discriminant validity analyses indicated that the IJS remained empirically distinct

from all included measures, with a theoretically interpretable marginal overlap with social justice attitudes.

Taken together, these findings offer the first validated self-report measure of intellectual justice attitudes. The three-subscale structure provides empirical support for Fricker's theoretical distinction between testimonial and hermeneutical injustice, while the Intellectual Action subscale extends this framework by capturing active epistemic engagement. The IJS has potential applications in research on epistemic fairness, educational interventions aimed at cultivating intellectual virtue, and motivational attitudes related to critical thinking in AI.

References

- Ashton, M. C., & Lee, K. (2018). How well do Big Five measures capture HEXACO scale variance? *Journal of Personality Assessment*, 101(6), 567–573. <https://doi.org/10.1080/00223891.2018.1448986>
- Carpenter, S. (2017). Ten steps in scale development and reporting: A guide for researchers. *Communication Methods and Measures*, 12(1), 25–44. <https://doi.org/10.1080/19312458.2017.1396583>
- Fricker, M. (2007). *Epistemic injustice: Power and the ethics of knowing*. Oxford University Press.
- Groskurth, K., Beierlein, C., Nießen, D., Baumert, A., Rammstedt, B., & Lechner, C. M. (2023). An English-language adaptation and validation of the Justice Sensitivity Short Scales-8 (JSS-8). *PLoS ONE*, 18(11), e0293748. <https://doi.org/10.1371/journal.pone.0293748>
- Hinkin, T. R. (2005). Scale development principles and practices. *Research in Organizations: Foundations and Methods of Inquiry*, 1(1), 161–179.
- Leary, M. R., Diebels, K. J., Davisson, E. K., Jongman-Sereno, K. P., Isherwood, J. C., Raimi, K. T., & Hoyle, R. H. (2017). Cognitive and interpersonal features of intellectual humility. *Personality and Social Psychology Bulletin*, 43(6), 793–813. <https://doi.org/10.1177/0146167217697695>
- Morgado, F. F. R., Meireles, J. F. F., Neves, C. M., Amaral, A. C. S., & Ferreira, M. E. C. (2017). Scale development: Ten main limitations and recommendations to improve future research practices. *Psicologia Reflexão e Crítica*, 30(1). <https://doi.org/10.1186/s41155-016-0057-1>
- Torres-Harding, S. R., Siers, B., & Olson, B. D. (2011). Development and psychometric evaluation of the Social Justice Scale (SJS). *American Journal of Community Psychology*, 50(1–2), 77–88. <https://doi.org/10.1007/s10464-011-9478-2>