Social perception of wisdom across cultures

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One sentence summary

We identified two common dimensions of wisdom perception and showed that across cultures people view themselves as more socio-emotionally aware but less reflective than wisdom exemplars.

Abstract

The concept of wisdom has captivated scholars throughout history, yet disagreements remain over its cultural variability. Here, we investigated wisdom perception in self and others across 16 samples from eight cultural regions on five continents. Participants assessed wisdom exemplars, non-exemplar targets, and themselves on 19 socio-cognitive characteristics, rating each person's wisdom. Multilevel factor analyses unveiled two latent dimensions: Reflective Orientation and Socio-Emotional Awareness. These factors were invariant across cultures and correlated positively with each other and with explicit wisdom ratings, though ratings of some exemplars varied by culture within the socio-emotional dimension. We also found additive and interactive effects of these factors on wisdom ratings. Intriguingly, individuals perceived themselves as less reflective but more socio-emotionally aware than most wisdom exemplars. These results illuminate social perception across cultures and underscore the importance of social perception in wisdom-attribution for both self and others, with wide-ranging implications for philosophy, psychology, and cognitive sciences.

Social perception of wisdom across cultures

How do we perceive wisdom in people? Philosophers from various cultural and historical traditions have proposed a range of ideas about the fundamental components of wisdom, from critical thinking and self-awareness to spirituality and social intelligence. Differences in epistemological traditions across cultures and over time suggest that the social perception of wisdom may vary greatly between different societies. In some cases, what one society considers wise could be viewed as foolish by another (Weststrate et al., 2016).

Though cultural differences in wisdom perception seem plausible, some theories in social psychology hint at a possible cultural convergence in social judgment of wisdom in others and oneself. First, people appear to judge others based on their ability to master tasks and their ability to coordinate with others (Abele et al., 2021). Thus, the underlying general dimensions of social judgment—analytical and socio-emotional competences—might influence wisdom perception across cultures. Second, people often inflate their competences on characteristics they view as central to their self (Dufner et al., 2019; Gebauer et al., 2015; Sedikides et al., 2005). To the extent that people from different cultures consider wisdom-related characteristics as desirable (Assmann, 1994; Grossmann et al., 2020; Grossmann & Kung, 2020; Oakes et al., 2019), social judgments of others versus the self could be influenced by self-enhancement processes similar to those identified in prior research.

However, the empirical support for cross-cultural convergence in dimensions of wisdom perception remains inconclusive. While some previous research has suggested that Western cultures emphasize cognitive characteristics in their definitions of wisdom more than non-Western cultures (Takahashi & Overton, 2002), other studies have shown that Western cultures also emphasize socio-emotional characteristics (Glück & Bluck, 2011). Moreover, dimensions guiding social judgment of highly desirable characteristics like wisdom may differ from dimensions guiding social judgment of stereotypes; prior work on stereotypes focuses on less desirable characteristics associated with prejudice and social bias against certain groups. Finally, prior research on dimensions guiding judgment of stereotyped groups (Abele et al., 2021) and non-human agents (Gray et al., 2007) used samples from European and North American societies, with a dearth of research on social judgment in the Global South (Cuddy et al., 2009). To address this research gap, we systematically explored social perception of wisdom in others and the self across 16 samples from 8 distinct cultural regions.

Research Overview

Our research aimed to investigate latent dimensions that guide people's evaluation of characteristics associated with wisdom and whether these dimensions are consistent across cultures. We also examined the relationship between these latent dimensions and the explicit attribution of wisdom to specific individuals and oneself. To accomplish these aims, we developed a novel instrument that prompted participants to compare ten individuals, including themselves, in the context of making a difficult choice without a clear right or wrong answer. Specifically, participants compared pairs of human targets (e.g., *scientists* to *teachers*) on 19 characteristics associated with wisdom in prior philosophical and psychological scholarship on wisdom (e.g., “think logically,” “pay attention to others’ perspectives”), resulting in up-to 171 pairwise comparisons (see Fig.1 for study flow). The instrument also allowed us to examine cultural differences while accounting for response bias and other possible between-person differences across sites (e.g., gender, age, education). We gathered data from 16 samples across 11 languages and 5 continents.

We found two latent dimensions that guide people's evaluation of wisdom-related characteristics in others and the self—Reflective Orientation and Socio-Emotional Awareness, which were strongly aligned with the explicit attribution of wisdom (as well as knowledgeability and understanding) to specific individuals. Contrary to our expectations, these dimensions were consistent across cultures. Moreover, ratings of targets were highly stable across cultures on the Reflective dimension but varied depending on culture on the Socio-Emotional dimension. Additionally, we found that people in most cultures compared themselves favorably on socio-emotional characteristics associated with wisdom vis-à-vis exemplars of wisdom. Our findings provide new insights into the social perception of wisdom and its underlying dimensions. Our study has implications for our understanding of how individuals and cultures appraise desirable competences in others and the self.

Results

Two dimensions of wisdom perception

Based on prior cross-cultural research (Inglehart, 1997; Kitayama et al., 2022), we grouped our samples into 8 cultural regions. Participants compared ten human targets (including themselves) by their likeliness to act in a certain way in a difficult life situation (e.g., "think logically," "care for others' feelings;" see Fig. 1 and Methods for further details). Each act reflected a characteristic of wisdom, as discussed in prior research (Glück & Weststrate, 2022; Grossmann et al., 2020).

The target comparisons formed a multi-level dataset, with ratings of different targets by each characteristic nested within participants. We submitted this data to a series of factor analyses (Fig. 1). Model fit was evaluated with Comparative Fit Index (CFI, values greater than .9 signal an acceptable fit – (Hu & Bentler, 1998)), Root Mean Square Error of Approximation (RMSEA < .08), and Standardized Root Mean Error (SRMR < .08, reported for each level separately). In the first step, we aimed to identify the most stable configuration of factors—i.e., factors that remained consistent across exploratory multilevel factor models with different number of factors and provided interpretable solutions (as reflected in a meaningful combination of items) in each cultural region. This iterative process revealed an acceptable two-factor solution (see SI for details). By virtue of pairwise comparisons, our method controlled for an acquiescent response style within individuals. At the between-participant level, presence of response tendencies was tested by the introduction of a method factor. The latter improved the model only negligibly, difference (Δ) in CFI, RMSEA, and $SRMR_{within}$ was less than .001; and $\Delta SRMR_{between}$ = .006. Striving for a more parsimonious model, we thus omitted the method factor from further analyses.[1]

[1] Following preliminary analyses, we excluded three items from further analysis: One item ("disengage from the situation and let it unfold as it does") conceptually deviated from the others because it uniquely implied inaction, while the task given to participant was to determine if a target "will do" something. It also showed negligible associations with either factor (loadings < .2, see SI Tables S5-S6). Another item ("show pride in themselves") was the only reverse-coded characteristic (opposite of humility), and thus inconsistent with others. Finally, an item "notice if their body tenses up or relaxes when thinking about different options" was associated with each factor but did not contribute to the content coverage. Key analyses in the main body of the manuscript yield largely identical results when performing analyses on all 19 items. Thus, we focus on the restricted set to ensure clarity and avoid possible bias due to single reverse-coded items or items that stand out from the others.

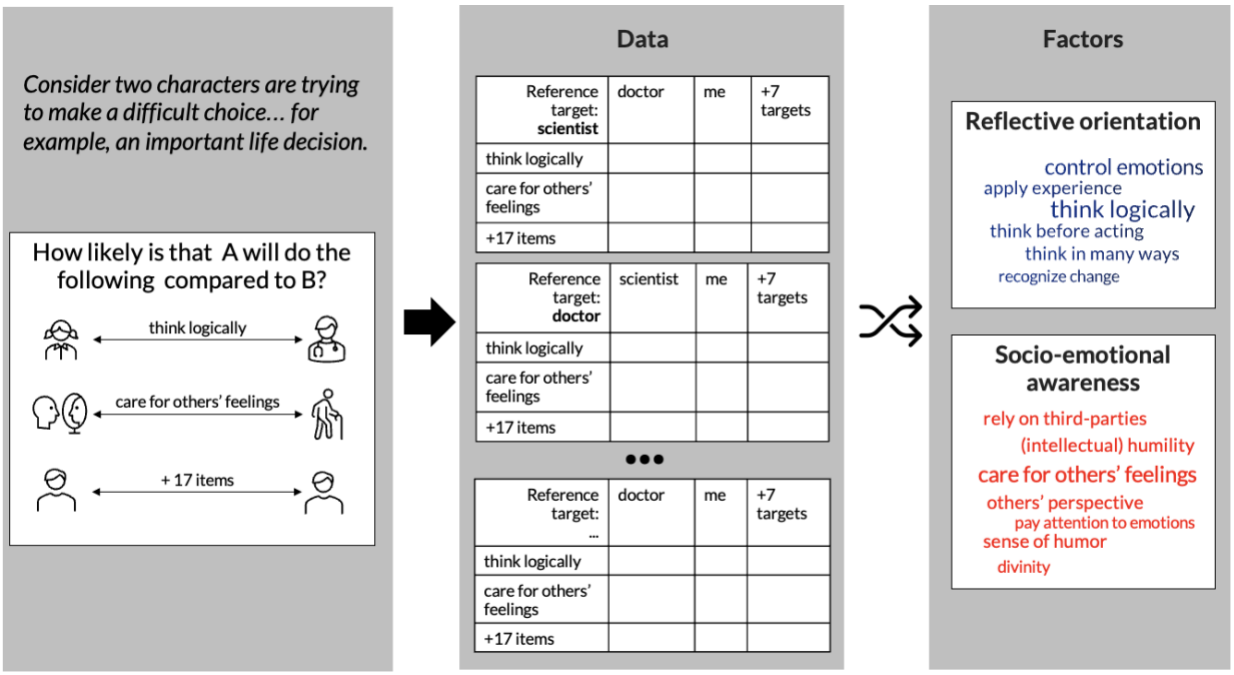

Fig. 1. Study flow. Participants in each cultural region pairwise compared ten targets (including themselves) on 19 ways of making a difficult choice when there is no clear right or wrong answer. The reference target was randomly assigned in a between-subject design, while the comparison targets' order was randomized within individuals. The resulting design allows for modeling within-individual, between-individual and between-regional differences in target similarity. The two-level factor analysis revealed two distinct latent dimensions of wisdom perception. The right panel lists shortened labels of the key items in the two factors, with font size reflecting their relative weighting.

In the second step we explored whether the two-factor model would be best described by factor loadings that are isomorphic across within- and between-individual levels of analyses. Isomorphic models assume equal loading across levels of analysis and are therefore more parsimonious (Jak, 2019). Cross-level isomorphism implies that the psychological processes underlying the attribution of characteristics to targets *within* an individual are similar to those defining *between*-individual differences. Cross-level isomorphism also implies that the constructs measured within and between individuals are comparable. Comparison of an isomorphic model constraining factor loadings across levels of analyses and a non-isomorphic model allowing them to vary demonstrated similarly good fit to the data, CFI = .956 and .963; RMSEA = .022 and .021; $SRMR_{within}$ = .028 and .024, $SRMR_{between}$ = .082 and .036, respectively. Thus, we proceeded with a more parsimonious isomorphic model.[2] Since the within-individual level dominated the model as indicated by intraclass correlation between .23 and .29 across different items, hereafter we focus on the results on the within-individual level (results on the between level are very similar; see SI).

To interpret the meaning of each factor, we examined factor loadings (Fig. 2). We labeled the first factor *Reflective Orientation*, with high loadings of characteristics concerning logical and complex thinking, recognition of change, emotion control, as well as application of knowledge and past experience. This factor dovetails with prior research on person and mind perception, which suggested "agency" (or "competence") as one dimension of social judgment.

[2] Since up to 80% of the variance in the data is due to the within-individual level, the deviations from isomorphism would be able to bias the parameters at the between level only. Importantly, the within-individual structure (including specific factor loadings) was unaffected by these model modifications.

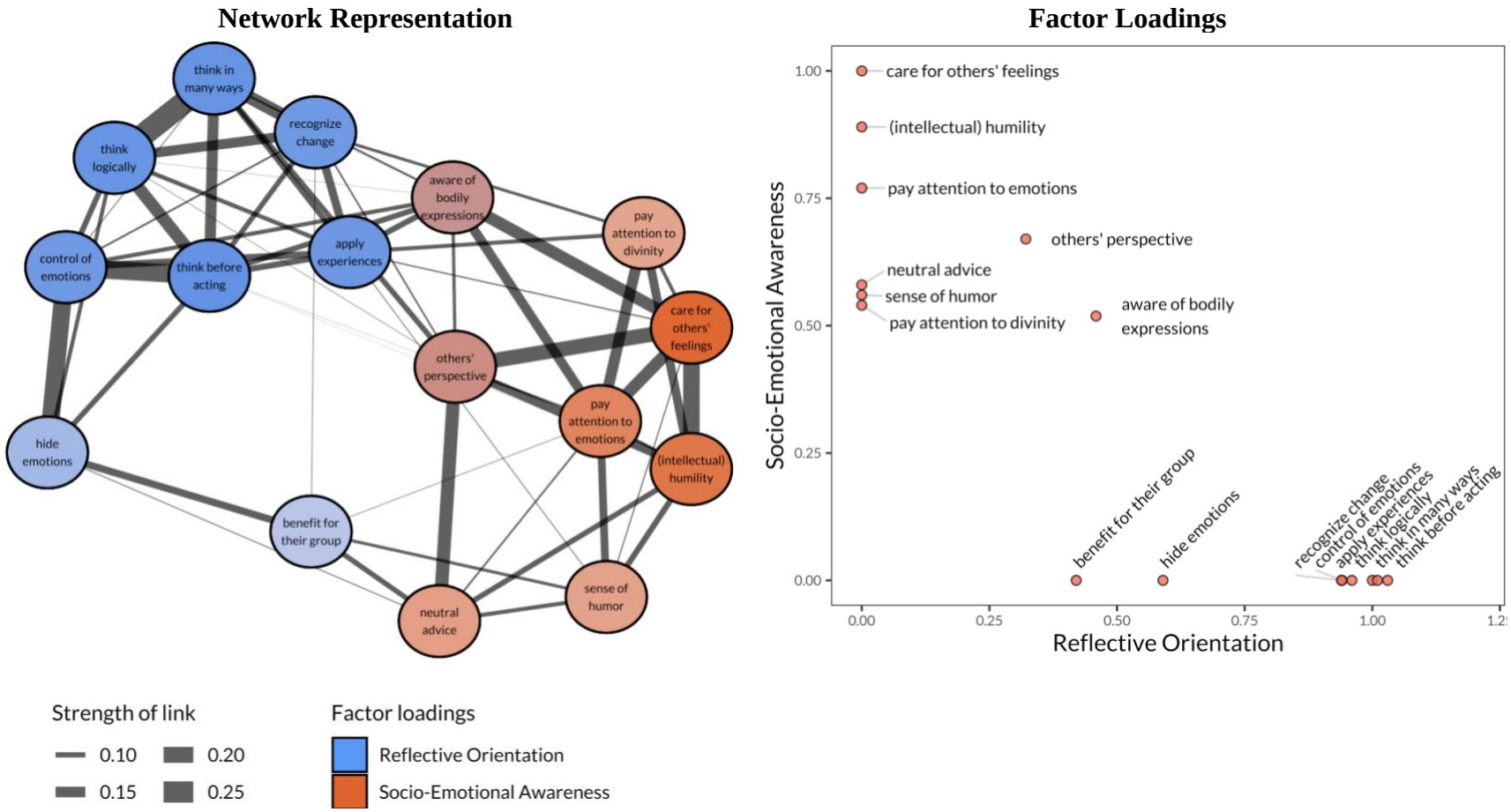

Fig.2. The structure of the latent wisdom perception dimensions. Left panel: network graph representation of items demonstrating closer (and stronger) associations of items making up each factor. Right panel: unstandardized factor loadings of items of the two factors taken from a multigroup multilevel confirmatory factor analysis. Drawing on prior tests, the underlying model assumed isomorphism (i.e., equal factor loadings at between- and within-individual levels), as well as partial invariance of loadings across eight cultural regions (only loadings on items "aware of bodily expressions," "consider others' perspective," and "listen to nature or divinity" differed across cultural groups). The model fit was acceptable, CFI = .912, RMSEA = .033, $SRMR_{within}$ = .032, $SRMR_{between}$ = .078.

We labeled the second factor Socio-Emotional Awareness, because of the highest loadings of characteristics concerning attention to feelings and others' perspective, and humility (recognition that one may be wrong). This factor appears similar to the "communion" ("warmth") and "experience" dimensions detected in prior social judgment (Abele et al., 2021) and mind perception research (Gray et al., 2007).

Probing cross-cultural differences

How stable is the two-dimensional model of wisdom perception across cultures? To address this question, we tested the invariance of the two-factor model across cultural regions. Results demonstrated a partial metric invariance, ΔCFI = .001; ΔRMSEA = .008; $\Delta SRMR_{within}$ = .004; $\Delta SRMR_{between}$ = .007. It implies that factor loadings were similar across the eight cultural regions. However, factor loadings of "paying attention to nature and divinity," and "consideration of others' perspective" showed some systematic variability across regions (Fig. S3 in the SI). Though speculative, cross-site variability in the value of "nature and divinity" for the Socio-Emotional Awareness dimension may reflect stronger socio-cultural emphasis on nature and divinity in traditional communities in Indian (Meitei) and South African (isiZulu and Sepedi) samples–the outliers in this item's loadings on the Socio-Emotional Awareness dimension.[3]

Though targets and characteristics varied widely, in most cultural regions perception of higher reflective orientation went hand in hand with higher perception of Socio-Emotional Awareness, r = .69, 95% CI [.66; .71], t = 63.0, p <. 001 (also see Fig. 4). This observation dovetails with the classic work on social judgment, suggesting a *halo effect* in person perception (Rosenberg et al., 1968) due to an overall positive appraisal of exemplars. It may imply that participants focused on the holistic differences between targets rather than specific differences between characteristics they rated targets on (i.e., showing little discrimination between characteristics). This holistic association between dimensions was more pronounced in East Asian and South African regions, $.76 < rs \leq .88$, compared to the Americas and North Africa, $.33 < rs \leq .77$ (also Table 1), dovetailing with prior observation of cultural differences in holistic versus analytic perception between these cultural regions (Nisbett & Miyamoto, 2005).

We performed several robustness checks of our results. First, we excluded the *12-year-old* target, a possible outlier in the current set of targets. It somewhat decreased the factor model fit, ΔCFI= .027, ΔRMSEA = .003, while after exclusion of "self" ratings from the data the model fit decreased only negligibly, ΔCFI= .002, ΔRMSEA = .002. Importantly, these analyses on restricted datasets barely changed the factor loadings of specific characteristics. The positive association between the two latent dimensions slightly decreased after exclusion of age-specific targets and the self, yet still remained in a moderate-high effect size range, $.63 < rs \leq .68$. Repeating these robustness checks within each cultural region showed similar results – i.e., we observed some decrease in model fit but virtually unchanged factor loadings (see results in Table S19 in SI).

[3] Cultural variability in factor loadings of "others' perspectives" did not form a meaningful pattern, with the Chinese and Indian samples being outliers with diametrically opposite results: While the Chinese loadings were highly positive on the Socio-Emotional Awareness and negative on the Reflective Orientation dimension, the Indian loadings were positive on the Reflective Orientation dimension, and at zero (and lowest compared to other groups) on the Socio-Emotional Awareness dimension.

Table 1. Sample characteristics and correlations between Reflective Orientation and Socio-Emotional Awareness.

	r	*CI* 95%		Age Mean (*SD*)	% (female)	*N*	*Languages*
Asia							
India	.88	[.84	.92]	30.9 (10.9)	.50	374	Hindi, Tamil, and Meitei
China	.84	[.79	.88]	22.6 (5.9)	.71	225	Mandarin
Korea and Japan	.75	[.69	.81]	42.3 (0.5)	.50	308	Korean and Japanese
Africa							
South Africa	.83	[.78	.87]	34.5 (11.9)	.64	524	Afrikaans, Sepedi, and Zulu
Morocco	.33	[.24	.43]	34.4 (14.2)	.47	181	Arabic
Europe							
Slovakia	.77	[.73	.81]	30.1 (13.2)	.24	246	Slovakian
Americas							
North America (Canada and US)	.58	[.52	.63]	26.7 (10.5)	.64	500	English
South America (Ecuador and Peru)	.41	[.32	.49]	22.3 (4.8)	.59	349	Spanish
Pooled sample	.69	[.66	.71]	30.6 (12.7)	.55	2,707	

Note: *r* = correlation coefficients, estimated in a partial metric invariance multigroup multilevel confirmatory factor analysis model (see caption to Fig.2 for details).

Attribution of wisdom

Though the two latent dimensions of wisdom perception—Reflective Orientation and Socio-Emotional Awareness— appeared in each cultural region, we have not shown if these dimensions align with explicit judgment of targets' wisdom. Therefore, in the next step, we asked participants to rate each target's wisdom. To examine whether attributions of wisdom are idiosyncratic, we also asked participants to indicate how knowledgeable and understanding they perceived each target to be – i.e., characteristics invoked in many cultures when mentioning wisdom (Glück & Weststrate, 2022; Grossmann et al., 2020); ratings of wisdom, knowledge, and understanding were randomized to avoid carry-over and contrast effects.

While both dimensions showed positive association with ratings of wisdom, the magnitude of association (per isomorphic pooled model) was more pronounced for the Reflective Orientation, $r = .47$, 95%CI [.46,.49], compared to Socio-Emotional Awareness, $r = .23$, 95%CI [.22,.25], r(difference) = .24, $t = 19.7$, $p < .001$. Analogous tests showed a larger divergence in dimensional associations with ratings of targets' knowledgeability, r(Reflective Orientation) = .50, 95%CI [.49,.52] vs. r(Socio-Emotional Awareness) = .21, 95%CI [.19,.23], r(difference) = .29, $t = 34.6$, $p < .001$, and a smaller divergence for ratings of targets' understanding, r(Reflective Orientation) = .43, 95%CI [.41,.44] vs. r(Socio-Emotional Awareness) = .33, 95%CI [.31,.35], r(difference) = .10, $t = 8.06$, $p < .001$.

To examine possible interaction effects between the two latent dimensions on attribution of wisdom, we used Bayesian estimation on the full sample, because estimation of interaction was not directly available in the maximum likelihood framework (see SI). The results revealed a substantial interaction between Reflective Orientation and Socio-Emotional Awareness, $\beta = .10$, Bayesian credible interval (i.e., a range within which population values fall into with 95%

probability) [.09; .11], $p < .001$. As Fig. 3 shows, participants gave the highest ratings of wisdom only to the targets they perceived as high on both latent dimensions. Conversely, lowest ratings of wisdom corresponded to low Reflective Orientation and high Socio-Emotional Awareness. Paradoxically, a person who appears less reflective is attributed greater wisdom when they also appear *less* socio-emotionally aware. For instance, the *scientist* and the *teacher* were perceived as similarly reflective, however the *scientist* was rated wiser despite the fact that *teacher* appeared *more* socio-emotionally aware. This suggests a conceptual differentiation between targets who appear to represent an ideal of wisdom and the rest: while at the top wisdom characteristics go together, toward the bottom higher wisdom is attributed to someone who appears focused and cold. Results were similar for knowledgeability (see SI Table S23). Notably, the role of Socio-Emotional Awareness was more salient for attribution of understanding—a person had to be high on both dimensions to be considered above scale midpoint on understanding (see SI Fig. S6).[4] See supplementary results for robustness checks across subsets of targets.

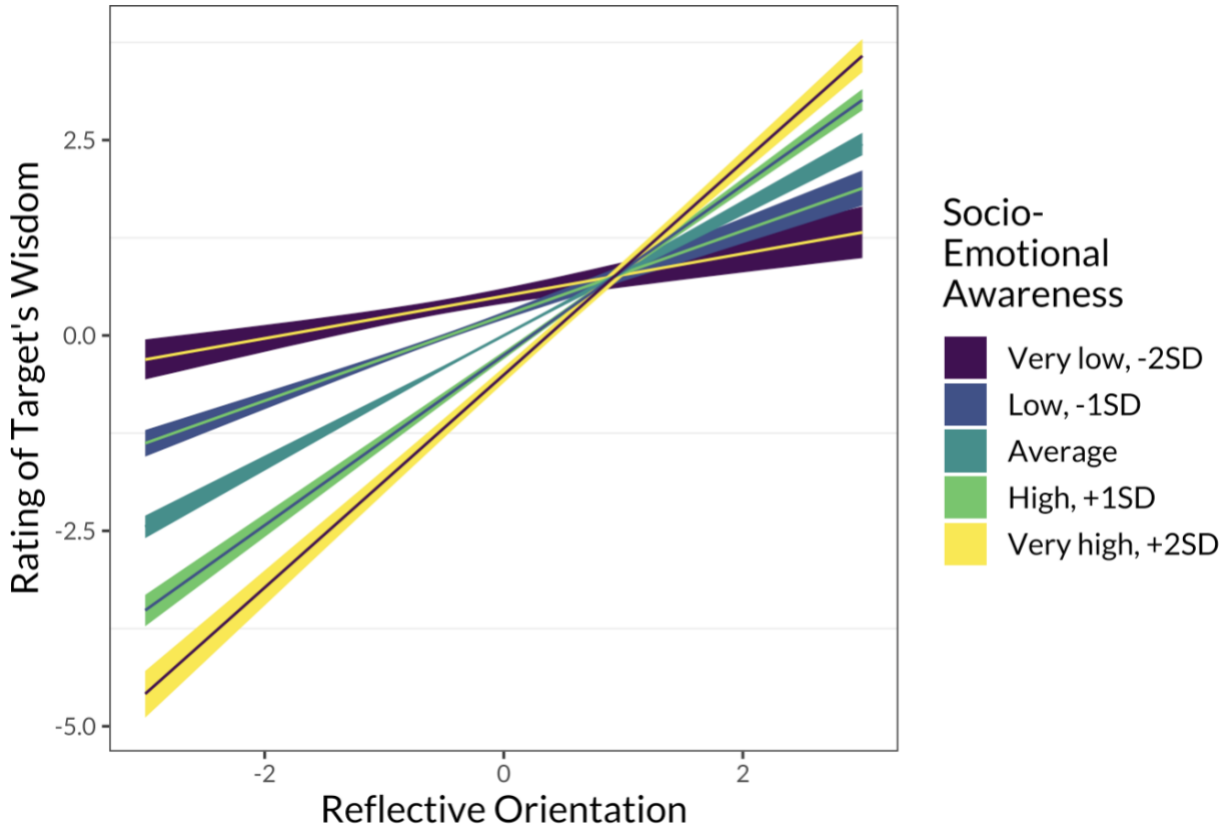

Fig. 3. Dimensions of wisdom perception interact in their association with wisdom ratings. Estimates reflect within-person scores from a two-level structural equation model in which two latent predictors, Reflective Orientation and Socio-Emotional Awareness, were allowed to interact in its effect on ratings of targets' wisdom (dependent variable).

[4] Associations between the two latent dimensions and the explicit ratings of targets' wisdom showed some variability across cultural regions, $.30 < r(\text{Reflective Orientation}) \leq .57$, $[.26,.34] < 95\%\text{CI} \leq [.54,.61]$; $.14 < r(\text{Socio-Emotional Awareness}) \leq .35$, $[.10,.18] < 95\%\text{CI} \leq [.30,.41]$. However, this variability did not follow an apparent pattern, and the data lacked sufficient statistical power to explore it statistically. Notably, the direction and significance of correlation and regression coefficients in most regions remained similar to the result described above (see SI Tables S21-S23, and S25).

Perception of wisdom in others and the self

Finally, we compared targets on the latent dimensions of wisdom perception and the explicit ratings of their wisdom (see Fig.4). As expected, the *12-year-old* received the lowest scores on each dimension in each cultural region compared to the other targets. Overall, the doctor and the *scientist* were the highest on Reflective Orientation whereas the *fair person* and the teacher appeared on the top of Socio-Emotional Awareness.[5] Notably, targets with higher social status were rated consistently higher on Reflective Orientation, but inconsistently on Socio-Emotional Awareness. This observation dovetails with the finding that perception of agency (a construct similar to Reflective Orientation) is often attributed to hierarchical social positions such as a standing of occupational prestige ladder, while communion is not (Durante et al., 2017), as well as with the classic finding in sociology concerning the cross-cultural stability in the perception of competence-based positions of individuals (e.g., occupational prestige) (Treiman, 1977).

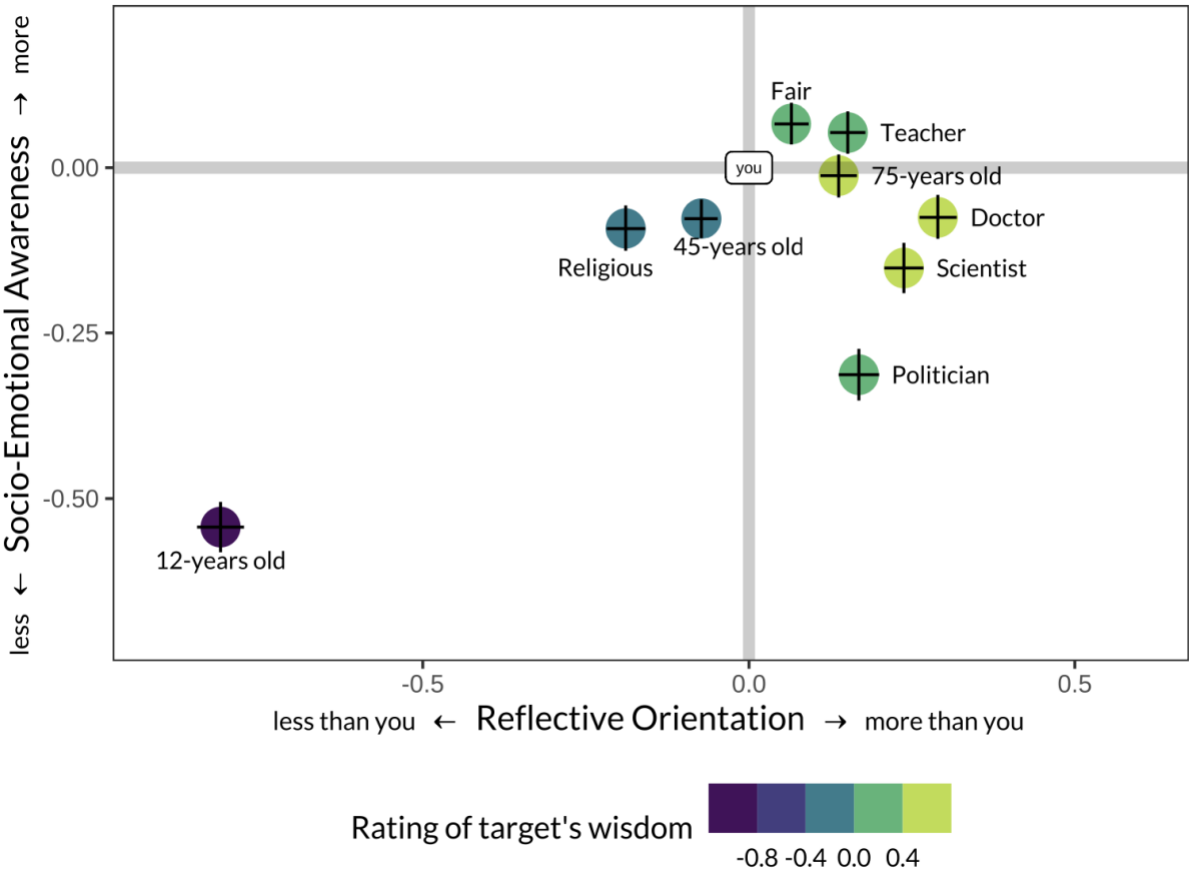

Fig. 4. Estimated scores of ten targets along the two wisdom perception dimensions. The dots' position and color represent unstandardized regression coefficients from a two-level pooled-sample structural equation model, CFI = .916; RMSEA = .027; $SRMR_{within}$ = .031 ; $SRMR_{between}$ = .063. Targets were regressed on the two latent dimensions and explicit ratings of wisdom. Values of "you" were used as a reference category in regression analyses and were therefore set to zero. Thus, all other scores represent the distances from "you." The bars represent 95% confidence intervals of estimated parameters.

[5] Consistent with prior research, targets' positions on Reflective Orientation were stable across cultural regions, average intercorrelation r = .97, whereas targets' positions on Socio-Emotional Awareness were substantially more variable, average r = .79; mean difference between the targets' positions on the two dimensions across cultural regions, *r(difference)* = 0.18, d = 0.36 (see SI for details).

Researchers from each cultural site picked the gender of the targets deemed culturally appropriate. Therefore, we controlled for the target's gender when examining differences in ratings between targets. Furthermore, we tested how targets' gender is associated with wisdom perception. The results showed that female targets were rated lower than male targets on Reflective Orientation, albeit comparable to male targets on Socio-Emotional Awareness. This result dovetails with prior research on social judgment and gender stereotypes (White & Gardner, 2009)[6].

Turning to self-views, participants rated themselves as less reflective compared to six targets, $4.8 < t\text{s} \leq 19.9$, but more reflective compared to the *religious person*, $t = 12.5$, and two non-exemplars of wisdom, the *12-year-old*: $t = 44.1$, and the 45-year-old, $t = 5.7$, all $p\text{s} <. 001$, $df = 22{,}570$. Conversely, participants rated themselves as more socio-emotionally aware than six targets, $4.3 < t\text{s} \leq 27.8$, $p\text{s} < .001$, with two exceptions: both the *fair person* and the *teacher* were rated as more socio-emotionally aware than the self, $3.3 < t\text{s} \leq 4.1$, $p\text{s} < .001$, whereas the *75-year-old* person did not differ from *self*, $t = 0.74$, $p = .461$. Self-ratings were consistent across cultures. At the extreme, participants from Korea and Japan, Morocco, and Slovakia considered themselves to be on the topmost of Socio-Emotional Awareness. Parallel analyses with explicit ratings of understanding—a construct invoking socio-emotional abilities—compared to knowledgeability and wisdom yield similar results: Participants in all regions but South Africa rated themselves as significantly higher in understanding compared to knowledgeability, $1.4< t\text{s} \leq 13.2$, $p\text{s} < .015$, and wisdom, $0.9< t\text{s} \leq 13.7$, $p\text{s} < .001$ (Fig. S8 in the SI).

Discussion

In the context of challenging life decisions under uncertainty, people perceived the wisdom of others and the self along two latent dimensions of social judgment, which concerned how reflective and socio-emotionally aware they perceive the target of judgment to be. These two dimensions were invariant across eight cultural regions representing thirteen languages, thereby extending prior research on social judgment beyond the Global North (Abele et al., 2021) and by squarely focusing on characteristics people attribute to wise decision-making under uncertainty (Grossmann et al., 2020; Jeste et al., 2010). Overall, our results suggest that the two latent dimensions of wisdom perception may be a psychological universal (Norenzayan & Heine, 2005).

Two further observations are noteworthy. Despite the universal structure of the latent dimensions of wisdom perception, use of these dimensions for judgment varied by culture. Specifically, while the cross-cultural agreement on the positions of targets on Reflective Orientation was high (cf. Treiman, 1977), cross-cultural agreement on Socio-Emotional Awareness was substantially lower. Second, these dimensions appeared to be differentially susceptible to self-enhancement bias (Sedikides & Gregg, 2008): in most societies people considered themselves superior to exemplars on socio-emotional competences, while inferior on reflective competences. The latter observation dovetails with research on personality (i.e., greater self-enhancement of agreeableness versus conscientiousness (Sun & Vazire, 2019)) and with the role of cultural factors such as religiosity for self-enhancement on warmth rather than competence (Eriksson & Funcke, 2014).

[6] Additionally, older, female, and more educated participants assigned overall higher ratings of Reflection Orientation and Socio-Emotional Awareness to the reference target as compared to the comparison targets.

From a philosophical point of view, our results might explain why philosophers have long debated whether there are two kinds of wisdom—practical and theoretical wisdom—or whether these two forms of wisdom are in some way unified (Ryan, 2020): the two types of wisdom examined by philosophers may be rooted in the two dimensions of wisdom perception among lay people.

In light of previous findings that self-assessments tend to be less accurate when evaluating desirable and behavioral characteristics (Vazire, 2010), our study's results suggest two potential explanations meriting further exploration: first, people might value Socio-Emotional Awareness more than Reflective Orientation, leading to greater self-enhancement in this dimension; second, Socio-Emotional Awareness might be easier to observe in oneself, while Reflective Orientation could be more readily spotted in others. Investigating these possibilities will allow us to refine our understanding of wisdom perception and how individuals may be biased in their assessments. Future research may also explore whether dimensions guiding perception of wisdom exemplars also extend to the study of moral exemplars; if so, it would suggest that moral perception is not a separate dimension (Wojciszke, 2005), and that evaluation of Reflective Orientation is central for folk theories of morality (Mikhail, 2011).

Several caveats are in order before concluding. Because of the pragmatic concern that each new target introduces a large number of pairwise comparisons, we followed prior person (Abele et al., 2021) and mind-perception research (Gray et al., 2007) in using a relatively small population of targets: we focused on targets representing the space of common wisdom exemplars (Weststrate et al., 2016). For the same reason we allowed for some overlap in target characteristics. For instance, *you* and a *45-year-old* person could also be a *teacher*. This approach aimed to increase ecological validity: in real life people typically evaluate others based on limited information about them, and characteristics they compare are rarely mutually exclusive. Nevertheless, the relatively small number of exemplars of wisdom and the overlap in their characteristics could bias the resulting latent dimensions. However, supplementary results without the age-related targets and self-view ratings, as well as random subsets of targets yielded close to identical latent dimensions and similar degree of cultural universality of the main results. Nevertheless, future work may consider focusing on extending the number of mutually exclusive targets, balancing this goal with the practical challenges of study length for societies not accustomed to being surveyed.

Furthermore, our analyses focused on the most common characteristics used to describe wise persons (e.g., Glück & Weststrate, 2022; Grossmann et al., 2020; Jeste et al., 2010). It is theoretically possible that inclusion of more specific behaviors (e.g., praying) or more general psychological attributes (e.g., seeing, feeling, thinking) would result in further dimensions of wisdom perception. Therefore, it appears prudent to conclude that there are *at least* two dimensions, which are likely to describe wise persons well.

Moreover, because we relied on convenience sampling, participants were not representative of the populations in their respective cultural regions—a common issue for much research in psychology (Henrich et al., 2010). Nevertheless, the stability of results across different languages and cultures suggests that the two dimensions of wisdom perception might appear in the broader population as well.

Finally, while the format of our instrument to capture latent dimensions of wisdom perception allowed us to compare wisdom perception systematically across many societies using large samples, the standardized questionnaire format may have fostered cross-cultural consistency in participants' reports (e.g., Barrett, 2022). Future research may therefore test if use

of natural-language processing methods to categorize open-ended narratives capturing impressions of wise persons would result in similarly consistent results across cultures.

Methods

Data

Data was collected between 2019 and 2021 from convenience samples across 16 sites in 11 countries via the Qualtrics online platform or via paper-and-pencil (in Slovakia and Morocco; see Table 1). Samples from Canada, Ecuador, Peru, and the US consisted of university students, the other samples came from a broader population. Japan and two Indian samples used the shortened version of our questionnaire (limited to five targets). Based on the GPower calculation for 80% power and small effect size (r = .21) we required a sample of at least 173 participants per site. Notably, our study involved samples from traditional and rural groups from several societies (e.g., the tribal Meitei people in India), for which it was not feasible to obtain larger samples. We aimed for at least 100 from indigenous and minority populations and at least 180 participants from larger sites. The collected total sample consisted of 2,650 participants.

Sample size considerations

Following prior work on mind perception (Gray et al., 2007), initially we planned to use multidimensional scaling (*MDS*) and had pragmatic concerns for samples in harder-to-get populations. Thus, we estimated a relatively small minimal sample size per group (targeted at 180 with a minimum of 100 for smaller populations).[7] However, at the end we decided to employ a more advanced technique involving multilevel structural equation modeling. This analytical procedure was conceptually similar to MDS. However, it had critical advantages concerning control for several sources of potential biases (e.g., nested structure of the data, ability to simultaneously estimate latent variables and their direct impact on the dependent variable, ability to estimate measurement error).

Notably, this method called for larger samples. Therefore, we decided to merge smaller samples into eight broad cultural regions based on broadly applied classifications of cultural similarity in values, practices, and relational and self-concepts (e.g., Henrich et al., 2010; Inglehart, 1997; Kitayama et al., 2022). First, we merged samples taken from the same countries (e.g., three linguistic samples in South Africa were treated as one). Second, we followed a widely consensual classification of countries to merge American and Canadian samples to the North American group, and Ecuador and Peru into the South American group. Here, we followed prior insights on cultural values (e.g., Inglehart, 1997) and relational and self-views (see Kitayama et al., 2022 for a review). We further combined South Korean and Japanese samples, because the two countries are the wealthiest in the East Asian region, with common features of economic and political systems, as well as some cultural features (Inglehart, 1997; Kitayama et al., 2022). Moreover, Japanese participants completed only a subset of targets and its sample on its own was severely underpowered for the multilevel SEM models. We treated the Chinese sample as distinct due to the special position it takes in the region, and its distinct socio-economic system. We treated samples from Morocco and Slovakia as sole representatives of their cultural regions (North Africa and Europe) and did not merge them; these samples also varied in modality (paper-and-pencil versus online in other sites).

[7] For technical reasons, we failed to pre-register the methods prior to data collection, albeit approving the method internally by the Geography of Philosophy consortium (see unedited copy on OSF https://osf.io/m4dxv/?view_only=a971ec7db19c4ced877080abd3c9cc2b).

Procedure

Participants compared pairs of human targets in regard to their likeliness to employ each of the 19 ways to deal with a difficult life situation (see Fig.1). First, participants were presented with one of the pairs of targets. Each target had a culturally specific name and a short description that contextualized their exemplary qualities. For instance, instead of simply stating “teacher,” participants read “Dr. Kim is a school teacher who educates twelve-year-olds about local history and literature.” Similarly, instead of “scientist” we provided a concrete description “Dr. Kim is a scientist who gathers information about plants, animals, and people to make sense of the world” (see full list of prompts in Table S1 in the SI).

To reduce study fatigue, participants were randomly assigned to only one reference target from the list of ten (between-subject element), to which they compared all other targets (within-subject element; presented in a pseudo-random order). Thus, participants saw individual pairs constructed between that reference target and each of the nine remaining targets. Second, participants responded to a key question: “How likely is it that [reference target] will do the following things compared to [comparison target]?” when they “are trying to make a difficult choice that there is no clear right or wrong answer to.” Comparison criteria consisted of 19 characteristics, such as “think about the issue in many different ways” and “have good control of emotions” (see exact wordings in SI Table S3). Participants compared targets using a five-point scale from “Much less likely” to “Much more likely” with a middle option “Equally likely.” Subsequently, participants provided ratings of each target’s wisdom, knowledge, and understanding (in a randomized order) using a five-point scale from “Not [wise] at all"” to “Extremely [wise].” We also collected basic demographic information such as age, gender, and education of participants.

The initial version of the instrument was developed in English by an international team of researchers. Translating philosophical terms is difficult due to a range of epistemological traditions across cultures (e.g., Nisbett et al., 2001). One particular problem for the terms in this study was the presence of ambiguities in the English terms that may not be present in other languages. For example, the noun "understanding" in English sometimes refers to comprehension of information, and sometimes to an awareness or sympathy for others' feelings. There may not be terms in the target languages that have the same specific ambiguities. And even when the ambiguity is present, it may function differently than in English (e.g., a similar ambiguity of 理解 in Chinese is related to the transitiveness of its use). Therefore, we asked researcher teams at each site to alert us when the translation of a philosophical term was problematic and relied on team discussions to determine how and when terms were disambiguated in the target language.

Materials

A total of ten targets were included in the study: *self, scientist, doctor, teacher, fair person, politician, religious person, 75-, 45-,* and *12-year-old* (see specific wording in SI Table S1). The selection of characters was performed by an interdisciplinary group of experts and followed three criteria:

(1) The target is an exemplar of wisdom (as evidenced in the literature; see Weststrate et al., 2016), with two control targets - a *12-year-old* person who commonly does not possess much life experience; a *45-year-old* person as a representative of an average adult in many societies.

(2) We expected each selected target to be understandable and common in each of the sampled societies.
(3) The final list of targets would be reasonably small to enable pairwise comparisons without fatiguing the participants; this is because each new target would involve 19 extra comparisons and with the nine comparison targets it counted up to 171 comparisons for each participant.

We generated 16 characteristics following the core items from the previously established Common Wisdom Model (Grossmann et al., 2020; also see Grossmann & Kung, 2020), and similar frameworks featuring additional characteristics such as emotion regulation (Jeste et al., 2010). To increase variance in the data, we further added one (reverse-coded) item concerning the lack of humility—showing pride in oneself. Further, we generated two items tackling attention to own and others' bodily expressions, based on the ideas that wisdom is associated with mindfulness (Jeste et al., 2010; Verhaeghen, 2020), and that attention and bodily awareness are central elements of mindfulness (Choi et al., 2021). Each characteristic described a behavior, a mental action, or a focus of attention.

Participants compared targets along these 19 characteristics using a five-category scale from "[the reference target] is much less likely than [the comparison target]" to "[the reference target] is much more likely than [the comparison target]." The five-category scale allowed for the neutral option where the two characters were equally likely to perform a given action.

Analytical Approach

The analytical strategy followed multiple steps within the multilevel analysis framework (see overall structure in Fig. 5). Our multilevel model included two levels, one of which represented within-individual structure and the other reflected between-individual differences. The design of the instrument implied that the within-individual level described the comparisons of a single reference target with many comparison targets, whereas the between- individual level described the comparisons of various reference targets to the individual averages of all the comparison targets. At the within-level, a reference target was constant, because each participant had only one reference target. Thus, only the comparison targets contributed to the within-individual variance. By the virtue of randomization of the reference targets, it was reasonable to expect that structures and associations between variables would be similar across the two levels. We used this two-level structure to fit exploratory and confirmatory factor analyses, and then extended it to the multilevel structural equation models to test latent dimensions' associations with explicit attributions of wisdom. The latter controlled for individual differences including age, sex, education, and religiosity.

To test measurement invariance, we expanded the two-level confirmatory factor model to multiple-group-multilevel factor model. Here, we fitted the original multilevel model simultaneously in several groups. This approach allows for checking whether parameters of multilevel models are similar across subpopulations. All the models were run in Mplus 8.8 software (Muthén & Muthén, 2022).

Data and Code Availability

The codes and data are available at an OSF directory https://osf.io/m4dxv/?view_only=a971ec7db19c4ced877080abd3c9cc2b.

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Supplementary Information
for "Social perception of wisdom across cultures"

Table of Contents

Procedure and data preparation

Procedure

Participants were presented with pairs of ten targets and then asked a series of questions about the pairs (full wording for each target is in Table S1). Each participant was assigned a reference target from the list. Participants then saw individual pairs constructed between that reference target and each of the remaining individual comparison targets. Thus, each participant saw nine pairs in total. The comparison target was selected and paired with the first target in one of two consecutive orders: ascending order or descending order, affording pseudo-randomization. For example, participant 1 would see pairs 1 vs. 2, 1 vs. 3… 1 vs. 10; participant 2 would see pairs 2 vs. 10, 2 vs. 9… 2 vs. 1; participant 3 would see 3 vs. 1, 3 vs. 2…, 3 vs.10, and so on. To facilitate the administration of the procedure, in Japan and two Indian samples (Meitei and Tamil) the number of targets was reduced to five, namely, three age groups, *religious person*, and *you*.

Directly below each pairing, participants were asked the following:

> *Consider that these two characters are trying to make a difficult choice that there is no clear right or wrong answer to (for example, an important life decision). In your view, how likely is it that [REFERENCE TARGET'S NAME] will do the following things compared to [COMPARISON TARGET'S NAME]?*

Comparison characteristics were randomly listed in a matrix table below this question and judgments about them were collected using a 5-item scale labeled in the following way:

- *"[REFERENCE TARGET'S NAME] is much less likely than [COMPARISON TARGET'S NAME]",*
- *"[REFERENCE TARGET'S NAME] is moderately less likely than [COMPARISON TARGET'S NAME]",*
- *"[REFERENCE TARGET'S NAME] is equally likely than [COMPARISON TARGET'S NAME]",*
- *"[REFERENCE TARGET'S NAME] is moderately more likely than [COMPARISON TARGET'S NAME]",*
- *"[REFERENCE TARGET'S NAME] is much more likely than [COMPARISON TARGET'S NAME]".*

Table S1. List of targets

Label	Wording*
Self	When you look in the mirror, please consider how you would compare with the other character presented.
12-year-old	Payton is a twelve-year-old child who lives with their mother and father.
45-year-old	John is a forty-five-year-old man who lives with his wife and two children.
75-year-old	Pat is a seventy-five-year-old person who has a lot of life experience and many stories to share.
Religious	Elliot is a very religious person.
Fair	Taylor is a just and fair person who puts themselves forward to fight for the rights of others.
Teacher	Alexis is a school teacher who educates twelve-year-olds about local history and literature.
Politician	Kendell is an elected political leader (e.g. chief, mayor) who represents hundreds of people.
Scientist	Dr. Morgan is a scientist who gathers information about plants, animals, and people to make sense of the world.
Doctor	Dr. Kerry is a medical doctor who has been healing people for fifteen years.

* Names are as they were used in Canadian survey. The teams across regions of data collection selected culturally appropriate names of the targets.

Researchers from each cultural site picked the gender of the targets deemed culturally appropriate and the wording of items was changed accordingly (e.g., *doctor* was female in Morocco, Slovakia, and India, male in China, and gender-neutral in the other samples, see Table S2).

Table S2. Gender of targets by sample

	45-year-old	75-year-old	12-year-old	Religious	Teacher	Fair	Politician	Scientist	Doctor
Canada (English)	M	N	N	N	N	N	N	N	N
USA	M	N	N	N	N	N	N	N	N
Ecuador (Spanish)	F	M	M	M	F	M	N	N	N
Peru (Spanish)	F	M	M	M	F	M	N	N	N
Morocco	M	M	F	M	F	M	N	M	F
India (Hindi)	F	M	N	M	F	M	F	N	F
India (Meitei)	F	M	N	M	-	-	-	-	-
India (Tamil)	F	M	N	M	-	-	-	-	-
China	M	M	N	N	N	M	M	M	M
Korea	M	N	F	M	N	F	M	N	N
Japan	M	N	N	N	-	-	-	-	-
South Africa (Afrikaans)	M	M	F	M	N	F	M	N	N
South Africa (isiZulu)	M	M	F	F	N	F	M	N	N
South Africa (Sepedi)	M	M	F	M	N	M	N	N	N
Slovakia	M	M	F	F	M	M	F	F	F

Note. F – female, M – male, N – gender-neutral term, dash means the target was not used in the sample.

We chose the specific age of 12 to represent a target who is sufficiently cognitively developed to understand high-level constructs but below the threshold for a stereotypical teenager. We chose a *75-year-old* as a representative of an older person across societies (past the common threshold of retirement age of 65 in thematic World Bank/UN data sources). We selected a *teacher*, a *scientist*, and a *doctor*, because they are explicitly mentioned as exemplars of wisdom in prior North American literature (e.g., Weststrate et al., 2016). Finally, we selected a *politician* and a *fair person* (who is an activist fighting for human rights) as exemplars of civic leadership—another domain often associated with wisdom (Weststrate et al., 2016). All characteristics are listed in Table S3.

Table S3. List of characteristics used to compare targets.

Label	Full item wording
apply experiences	apply what they have learned from life experiences
aware of bodily expressions	be aware of others' facial and bodily expressions
benefit for their group	maximize the benefit for their group, regardless of the cost for others
care for others' feelings	care for others' feelings
control of emotions	have good control of emotions
hide emotions	not show emotions
(intellectual) humility	show humility (i.e., think that they could be wrong)
neutral advice	rely on neutral third-parties for advice
others' perspective	consider someone else's perspective
pay attention to divinity	pay attention to what nature or divinity is telling them
pay attention to emotions	pay attention to what their emotions are telling them
recognize change	recognize that events are in flux and can change
sense of humor	respond with a sense of humor
think before acting	think before acting or speaking
think in many ways	think about the issue in many different ways
think logically	think logically (i.e., provide rational, systematic argument to support their choices)
[excluded]	disengage from the situation and let it unfold as it does
[excluded]	show pride in themselves
[excluded]	notice if their body tenses up or relaxes when thinking about different options

Note: excluded – characteristics omitted from analyses for theoretical or modeling reasons.

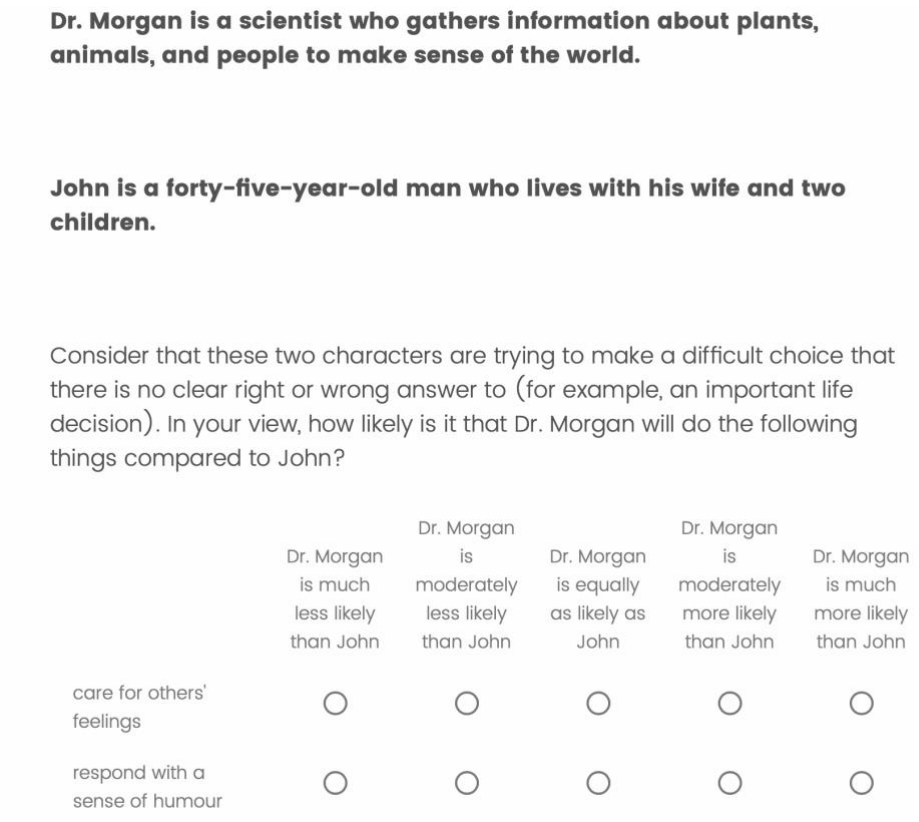

Figure S1. An example of the probes in the Qualtrics questionnaire fielded in Canada.

Data transformations

Missing values were treated with the full information maximum likelihood method, which makes use of all the available information when estimating a model. Since the measurement instrument could not include comparisons of targets to themselves, we completed the data by filling it in with response category 3 ("equally likely").

For the within-individual level analysis, answers to the questions about wisdom, knowledgeability, and understanding (i.e., how wise, knowledgeable, and understanding each target was) were transformed into differences between each pair of targets involved in the comparisons. For instance, if the reference target for the respondent was *teacher*, participants were supposed to compare *teacher* to every other target using each of the 19 behavioral items. Correspondingly, we computed the difference between the wisdom rating of the *teacher* and wisdom of each of the targets given by the respondent (see the structure of the data in Table S4).

All the variables were centered around the grand mean for all analyses. For the analysis at the pooled sample and region-specific models, we standardized all the variables (subtracted mean and divided by their standard deviation).

Analytical Approach

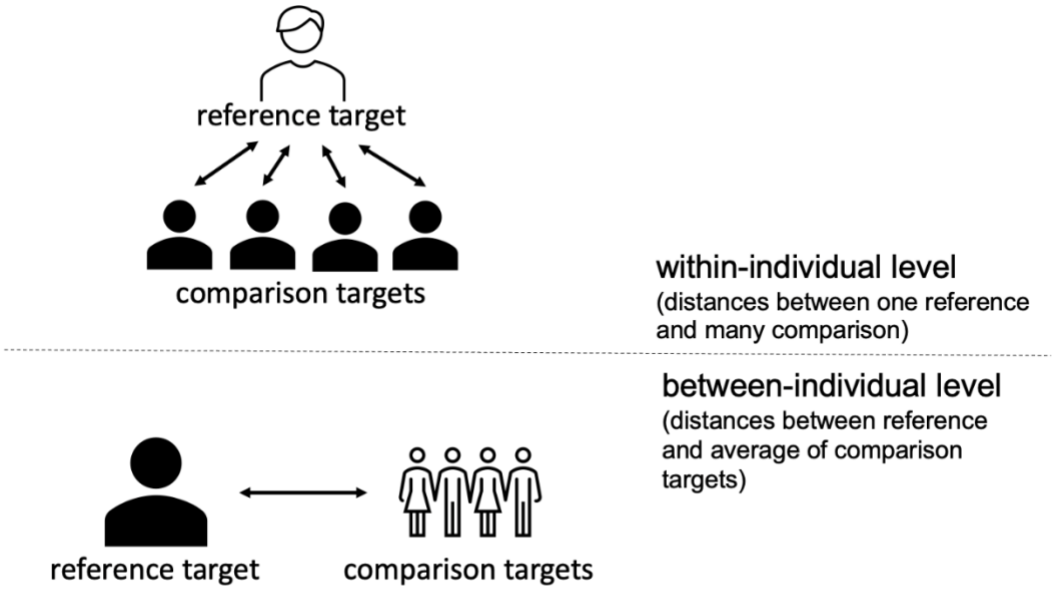

Figure S2. An overall structure of the multilevel model used in the analysis.

Each model we explored included a two-level structure (see Figure S2), though specifics varied. At the first stage we employed a multilevel exploratory factor analysis (ML-EFA). After identifying the optimal factor solution, we built a multilevel confirmatory factor analysis model (ML-CFA). Next, we extended this model to multilevel structural equation models (ML-SEM), to estimate associations between identified latent factors (Reflective Orientation and Socio-

Emotional Awareness) and explicit ratings of wisdom, knowledgeability, and understanding. We labeled models that did not account for group differences "pooled sample" models. We corrected standard errors and fit statistics in the pooled sample models for clusterization – i.e., taking into account the fact that participants came from different cultural regions and therefore were drawn from several rather than a single population (Asparouhov & Muthén, 2006).

Finally, we extended the ML-CFA model to a multiple groups model, simultaneously estimating the ML-CFA model fit in eight subsamples. This procedure allowed us to test whether there were differences between cultural regions by estimating equivalence of factor loadings, and by comparing associations between factors and wisdom, knowledgeability, and understanding ratings as well as targets' positions along the latent dimensions of wisdom perception.

We used a robust (maximum likelihood) algorithm to estimate most models. In addition, to compare models we examined differences in information criteria (sample-adjusted Bayesian information criterion – BIC). We did not consider *p*-values of the model χ^2 because they are not informative in very large samples. We used Bayesian Gibbs' sampler random walk algorithm to estimate models that included an interaction between the latent variables. The following criteria indicated the appropriate quality of the Bayesian models: potential scale reduction factor < 1.1; effective sample size > 300 for each parameter; in addition, we visually examined the autocorrelation plots and the traceplots for each parameter to ensure convergence between chains (Depaoli & van de Schoot, 2017; Gelman et al., 1995).

Table S4. Sample of the data for the multilevel analysis.

			Targets' characteristics					
id	Reference	Comparison	apply experiences	think in many ways	... hide emotions	Reference Wisdom	Comparison Wisdom	*D*
1	$45_{\text{year old}}$	$12_{\text{year old}}$	4	4	4	3	2	1
1	$45_{\text{year old}}$	$45_{\text{year old}}$	3	3	3	3	3	0
1	$45_{\text{year old}}$	$75_{\text{year old}}$	3	2	2	3	4	-1
1	$45_{\text{year old}}$	Doctor	3	2	2	3	4	-1
1	$45_{\text{year old}}$	Fair	3	2	3	3	5	-2
1	$45_{\text{year old}}$	Politician	2	1	2	3	4	-1
1	$45_{\text{year old}}$	Religious	3	4	2	3	2	1
1	$45_{\text{year old}}$	Scientist	3	2	2	3	3	0
1	$45_{\text{year old}}$	Teacher	3	2	2	3	3	0
1	$45_{\text{year old}}$	you	3	2	2	3	3	0
10	$45_{\text{year old}}$	$12_{\text{year old}}$	3	3	3	3	3	0
10	$45_{\text{year old}}$	$45_{\text{year old}}$	3	3	3	3	3	0

Note: *id* = participant's id. *D* = difference between wisdom attributed to the reference and comparison targets.

Dimensionality and Measurement Invariance

Preliminary analyses – item selection

We ran a series of ML-EFA models with 1-5 factors at each level. We did not consider a higher number of factors. We considered oblique *Geomin* rotated loadings because all the items were meant to measure similar construct(s).

Items "consider someone else's perspective" and "be aware of others' facial and bodily expressions" showed variable loadings across cultural regions. Another item ("show pride in themselves") was the only reverse-coded characteristic (opposite of humility), and thus inconsistent with the others. The variability of loadings was reduced after removing these items. Although variability persisted in regard to another three items (formal tests of measurement invariance across regions rejected equality of loadings, see below), we decided to keep these items in the analysis for a greater content coverage.

Table S5. Factor loadings from the five-factor ML-EFA fitted with 19 items, within-individual part.

	F1	F2	F3	F4	F5
think logically (i.e., provide rational, systematic argument to support their choices)	.67	-.02	-.05	-.03	.14
think before acting or speaking	.66	.04	.04	-.01	.01
have good control of emotions	.63	.01	.05	.06	-.09
think about the issue in many different ways	.58	.01	.04	-.04	.17
recognize that events are in flux and can change	.48	.03	.11	.08	.04
apply what they have learned from life experiences	.45	.01	.24	<|.01|	-.08
not show emotions	.44	-.21	-.05	.18	-.05
consider someone else's perspective	.23	.24	.15	.06	.25
be aware of others' facial and bodily expressions	.19	.02	.52	-.14	.02
show humility (i.e., think that they could be wrong)	.18	.39	.04	.20	.06
notice if their body tenses up or relaxes when thinking about different options	.16	-.08	.47	-.03	.02
care for others' feelings	.04	.36	.36	.01	.03
maximize the benefit for their group, regardless of the cost for others	.04	-.34	.35	.06	.06
rely on neutral third-parties for advice	.03	.05	.03	.25	.35
pay attention to what nature or divinity is telling them	.03	.09	.31	.18	-.27
show pride in themselves	.02	-.42	.37	.01	.05
disengage from the situation and let it unfold as it does	.01	-.06	.02	.48	<|.01|
pay attention to what their emotions are telling them	-.16	.06	.58	.08	-.04
respond with a sense of humour	-.03	.04	.19	.22	.09

Table S6. Factor loadings from a two-factor ML EFA fitted with 19 items within each cultural region, within-individual part.

	Factor	CN	IND	KJ	MO	NA	SAF	SAM	SK
apply what they have learned from life experiences	1	**.24**	**.65**	**.26**	**.10**	**.52**	**.54**	**.57**	**.71**
	2	**.37**	-.03	**.38**	**.55**	**.15**	.04	**.09**	.09
be aware of others' facial and bodily expressions	1	**.17**	**.60**	**.31**	**.13**	**.39**	**.54**	**.46**	-.01
	2	**.51**	.04	**.20**	**.55**	**.36**	.01	**.25**	**.87**
care for others' feelings	1	**-.10**	**.56**	**.70**	**.64**	.01	**.49**	<|.01|	**.38**
	2	**.79**	-.02	.02	.04	**.68**	.01	**.65**	**.46**
consider someone else's perspective	1	.01	**.60**	**.51**	**.27**	**.40**	**.55**	**.33**	**.32**
	2	**.74**	<|.01|	**.30**	.04	**.42**	-.01	**.32**	**.49**
disengage from the situation and let it unfold as it does	1	**.59**	.05	**.31**	**.09**	**.10**	.04	-.01	.11
	2	.07	**.37**	-.16	**-.38**	**.10**	**.41**	.07	.22
have good control of emotions	1	**.47**	**.63**	**.19**	-.09	**.70**	**.58**	**.60**	**.77**
	2	**.30**	.01	**.51**	**.60**	-.03	-.02	.06	.01
maximize the benefit for their group, regardless of the cost for others	1	**.23**	-.02	-.22	**-.15**	**.24**	.23	**.34**	**.40**
	2	-.10	**.50**	.18	**.33**	-.02	.21	-.06	-.01
not show emotions	1	**.45**	**.33**	<|.01|	**-.27**	**.47**	.12	**.46**	**.60**
	2	**.24**	.18	**.52**	**.40**	**-.40**	.25	**-.36**	-.05
notice if their body tenses up or relaxes when thinking about different options	1	**.30**	**.41**	**.35**	**.15**	**.40**	**.43**	**.49**	**.10**
	2	**.25**	**.15**	.15	**.28**	**.22**	.10	**.17**	**.79**
pay attention to what nature or divinity is telling them	1	**.23**	**.49**	.28	**.39**	-.01	**.40**	**-.08**	.15
	2	.04	-.01	-.16	.01	**.28**	.06	**.38**	**.37**
pay attention to what their emotions are telling them	1	**.28**	**.48**	**.45**	**.46**	-.05	**.37**	.02	-.07
	2	**.28**	.11	-.09	**-.19**	**.55**	**.12**	**.55**	**.70**
recognize that events are in flux and can change	1	**.72**	**.61**	**.39**	.07	**.60**	**.48**	**.54**	**.57**
	2	<|.01|	.04	**.36**	**.56**	**.13**	.03	**.10**	**.23**
rely on neutral third-parties for advice	1	**.35**	**.14**	**.32**	**.20**	**.31**	.13	**.15**	.09
	2	**.19**	**.28**	**.14**	-.08	.05	**.31**	**.29**	**.39**
respond with a sense of humour	1	**.26**	**.27**	**.35**	**.43**	.01	-.07	-.02	**.35**
	2	**.27**	.11	-.07	**-.16**	**.34**	**.48**	**.28**	.24
show humility (i.e., think that they could be wrong)	1	**.32**	**.51**	**.61**	**.57**	**.13**	**.41**	.01	.32
	2	**.34**	-.04	-.01	.06	**.50**	.08	**.53**	**.43**
show pride in themselves	1	**-.11**	.01	-.13	**-.33**	**.26**	.11	**.41**	**.45**
	2	**-.19**	**.44**	**.30**	**.24**	**-.20**	.30	**-.23**	<|.01|
think about the issue in many different ways	1	**.77**	**.64**	**.21**	-.01	**.67**	**.53**	**.64**	**.80**
	2	**-.11**	<|.01|	**.52**	**.68**	.07	<|.01|	-.02	-.01
think before acting or speaking	1	**.66**	**.69**	**.28**	<|.01|	**.71**	**.64**	**.69**	**.68**
	2	.11	-.04	**.50**	**.71**	.01	**-.09**	.01	**.13**
think logically (i.e., provide rational, systematic argument to support their choices)	1	**.76**	**.62**	-.02	**.10**	**.80**	**.58**	**.75**	**.85**
	2	**-.18**	<|.01|	**.71**	**.63**	**-.14**	-.06	**-.17**	**-.09**

Note. Bold font means significant loadings, $p < .05$. CN – China, IND – India, KJ – Korea & Japan, MO – Morocco, NA – North America, SAF – South Africa, SAM – South America, SK – Slovakia.

Number of factors

ML-EFA suggested several well-fitting multi-factor solutions; a few of them were parsimonious and revealed factors that were easily interpretable based on their loadings (see Table S7).

Five-factor solution. Following model fit indices only, the best solution suggested by the ML-EFA involved five factors. When considering the best-fitting factor solution with 5 factors at both levels, the fifth factor had only two substantive (>|.2|) loadings on items "rely on neutral third-parties for advice" and "maximize the benefit for their group." The fourth factor had two non-negligible factor loadings as well ("pay attention to emotions" and "pay attention to divinity"), see Table S5 for all factor loadings. It appeared that any commonality between the latter two items beyond (the one captured by the first two factors) was their specific wording containing "paying attention." The third factor in this solution also had only few non-negligible loadings, the largest of which were for items "have good control of emotions" and "not show emotions." Such factors in EFA do not capture substantively meaningful variance in participants' ratings beyond the method of measurement (e.g., similarity in wordings). In a CFA framework, such factors could be effectively replaced with residual covariances making the solution more parsimonious (Brown, 2015, pp. 159–160). In contrast, the first and the second factor had multiple large loadings which formed a meaningful pattern (see below). Therefore, the fourth and fifth factors were excessive. On these grounds, we rejected the 5-factor solution.

Four-factor solution. The fourth factor in the four-factor solution revealed only two non-negligible factor loadings: "not show emotions" and "maximize the benefit for their group." In the same vein, the third factor loaded on "rely on neutral third-parties" and "consider someone else's perspective." The first and the second factor had multiple large loadings which formed a meaningful pattern. We considered two non-negligible loadings per factor to be a sign of a residual correlation rather than a substantive latent variable, especially so when the combination of the items did not make much substantive sense. Therefore, the third and fourth factors were superfluous, and we also rejected the four-factor solution.

Three-factor solution. The third factor in the three-factor solution had four non-negligible factor loadings: "think about the issue in many different ways," "think logically (i.e., provide rational, systematic argument to support their choices)," "consider someone else's perspective," and a negative loading on "pay attention to what nature or divinity is telling them." This factor could be considered to be meaningful. The first two factors were similar to the solution in the two-factor solution.

Two-factor solution. Both factors in this solution had multiple and large factor loadings. See the main text for the interpretation of the two factors. Beside the one-factor solutions, the two-factor solutions were the most parsimonious yet well-fitting.

One-factor solution. ML-EFA based on 16 items revealed a poor fit of a unidimensional model at both levels. One-factor models at either within- or between-individual level had sufficient fit, as did all the other models, but in general one-factor models showed inferior fit statistics. Moreover, the difference in fit indices between 1- and 2-factor models at the within-individual level was relatively large: ΔCFI > .3, Δ RMSEA > .1 pointing to the inferiority of the unidimensional model. We revisit the issue again with the confirmatory models below.

Table S7. Fit indices for the pooled sample ML-EFA models based on 16 items (solutions for 1 to 5 factors at each level).

N_f Between	N_f Within	χ^2	*df*	CFI	BIC	RMSEA
5	5	527.3	100	.993	1089071	.013
4	5	703.5	112	.991	1089223	.014
3	5	893.8	125	.988	1089416	.016
5	4	943.3	112	.987	1089541	.017
2	5	1083.6	139	.985	1089648	.016
4	4	1206.0	124	.983	1089720	.019
3	4	1874.7	137	.973	1089969	.022
5	3	1275.2	125	.982	1089977	.019
4	3	1449.8	137	.980	1090157	.019
2	4	1509.0	151	.979	1090200	.019
3	3	1721.7	150	.976	1090447	.020
2	3	1963.5	164	.972	1090773	.021
5	2	1852.2	139	.973	1090860	.022
4	2	2015.9	151	.971	1091070	.022
1	5	2189.5	154	.968	1091237	.023
3	2	2502.1	164	.964	1091437	.024
1	4	2588.4	166	.962	1091776	.024
2	***2***	***2639.8***	***178***	***.962***	***1091880***	***.023***
1	3	3026.8	179	.956	1092337	.025
1	2	3614.2	193	.947	1093417	.026
5	1	5656.9	154	.914	1096756	.038
4	1	5807.3	166	.912	1096971	.037
3	1	6461.1	179	.902	1097345	.037
2	1	6330.3	193	.904	1097790	.035
1	1	8412.0	208	.872	1101168	.039

Note. N_f = Number of factors. Selected model is bolded and in italics.

To choose one of the solutions, we examined the congruence of factor loadings across different solutions. Such congruence analyses indicated that the first two factors (within-individual level) were similar across all two-, three-, four-, and five-factor solutions (see Table S8): the first factor's loadings from a two-factor solution was congruent with factor loadings in one-, three-, four- and five-factor solutions r_c = .88, .97, .99, and .87; loadings of the second factor from the two-factor solution showed very high degree of overlap with the corresponding factor loadings from three-, four- and five-factor solutions, r_c = .99, .97, and .87. However, loadings beyond the two factors revealed substantial incongruence. Therefore, the best-fitting five- and four-factor models could be efficiently represented in the CFA fashion as a two-factor model with one or two residual covariances. This is especially effective as the two factors were easy to interpret.

The third factor from the three-factor model (see Table S8) could be a candidate for the third dimension of wisdom perception. However, this factor conceptually overlapped with the first factor (Reflective Orientation) and in a CFA framework it would represent a subset of this factor with multiple cross-loadings.

Table S8. Factor loadings from the three-factor pooled-sample ML-EFA fitted with 16 items, within-individual part.

	F1	F2	F3
care for others' feelings	**.68**	-.03	-.05
show humility (i.e., think that they could be wrong)	**.56**	.01	.02
pay attention to what their emotions are telling them	**.52**	<|.01|	-.13
consider someone else's perspective	**.49**	.09	**.21**
respond with a sense of humour	**.33**	.01	-.01
pay attention to what nature or divinity is telling them	**.32**	.13	**-.25**
be aware of others' facial and bodily expressions	**.31**	**.33**	.01
rely on neutral third-parties for advice	**.31**	-.01	.19
apply what they have learned from life experiences	.14	**.51**	-.01
recognize that events are in flux and can change	.14	**.47**	.13
think about the issue in many different ways	.05	**.51**	**.32**
think before acting or speaking	.02	**.65**	.10
have good control of emotions	<|.01|	**.68**	-.03
maximize the benefit for their group, regardless of the cost for others	-.04	**.29**	<|.01|
think logically (i.e., provide rational, systematic argument to support their choices)	-.07	**.60**	**.30**
not show emotions	**-.22**	**.56**	-.02

Note. Loadings larger than absolute .2 are in bold.

Factor structure at the between-individual level replicated the results in regard to the first two factors, but revealed a very different third factor (that is, non-isomorphic). Third factor at the between-individual level seemed to capture common variance of the items "not show emotions," "have good control of emotions," and "maximize the benefit for their group." It is possible that this factor has substantive meaning (e.g., hiding emotions in favor of group), but it seemed to be a subset of a more easily interpretable factor 1 (Reflective Orientation).

Interestingly, the factor in the unidimensional factor solution was congruent with the first factor in the two-factor solution, but less so across the other solutions, suggesting that the two factors were positively correlated. All in all, the consideration of different factor solutions gave us good reasons to choose the two-factor solution at both levels.

Taking into consideration parsimony, stability across solutions with different numbers of factors, as well as interpretability of each factor, we decided to select a two-factor model, which we appended with several residual covariances, so that it effectively represents in a CFA framework the best fitting four- and five-factor EFA models.

Table S9. Congruence coefficients across ML-EFA factor solutions with varying number of factors, within-individual level part.

	1-factor model, Factor 1	2-factor model, Factor 1	2-factor model, Factor 2
1-factor model, Factor 1	1.00		
2-factor model, Factor 1	**.88**	1.00	
2-factor model, Factor 2	.57	.11	1.00
3-factor model, Factor 1	.62	.17	**.99**
3-factor model, Factor 2	**.84**	**.97**	.07
3-factor model, Factor 3	.41	.59	-.17
4-factor model, Factor 1	**.87**	**.99**	.12
4-factor model, Factor 2	.64	.21	**.97**
4-factor model, Factor 3	.34	.16	.43
4-factor model, Factor 4	.28	.40	-.11
5-factor model, Factor 1	**.79**	**.87**	.14
5-factor model, Factor 2	.57	.18	**.87**
5-factor model, Factor 3	.53	.65	-.02
5-factor model, Factor 4	.51	.22	.69
5-factor model, Factor 5	.10	.22	-.17

Note. Congruence coefficients of the first and second factors from different solutions are in bold.

Testing isomorphism

The results show that the fit of isomorphic and non-isomorphic models was very similar in the pooled sample (Table S10) and each of the cultural regions (Table S11). In six regions model fit indices such as BIC and RMSEA suggested identical if not superior fit of the isomorphic models. Overall, the differences between the two models were negligible, so to arrive at the more comparable model, we opted for a more parsimonious isomorphic model.

Table S10. Statistical fit of isomorphic and non-isomorphic ML-CFA models with a method factor at the between-level estimated at the pooled sample.

Model	BIC	χ^2	*df*	CFI	TLI	RMSEA	SRMR Within	SRMR Between
Models without a method factor at the between-level								
Non-isomorphic	1,091,562	2545.7	208	.963	.958	.021	.024	.036
Isomorphic	1,092,120	3029.5	224	.956	.953	.022	.028	.082
Models with a method factor at the between-level								
Non-isomorphic	1,091,373	2517.1	207	.964	.958	.021	.024	.042
Isomorphic	1,091,354	2546.9	223	.964	.961	.020	.025	.047

Table S11. Comparison of isomorphic and non-isomorphic models (without method factor) by cultural region

		BIC	CFI	TLI	RMSEA	$SRMR_{within}$	$SRMR_{Between}$
China	Isomorphic	87076.7	.899	.892	0.042	.047	.116
	Non-isomorphic	87073.6	.904	.890	0.042	.046	.094
India	Isomorphic	109386.2	.973	.971	0.021	.025	.069
	Non-isomorphic	109429.3	.974	.970	0.021	.023	.052
Japan & Korea	Isomorphic	97996.6	.911	.905	0.032	.041	.099
	Non-isomorphic	98024.8	.914	.900	0.033	.039	.071
Morocco	Isomorphic	73017.9	.926	.921	0.029	.050	.124
	Non-isomorphic	73070.0	.897	.883	0.035	.049	.122
North America	Isomorphic	194187.7	.908	.901	0.034	.052	.116
	Non-isomorphic	194201.3	.910	.897	0.035	.051	.100
South Africa	Isomorphic	210396.6	.968	.966	0.018	.022	.079
	Non-isomorphic	210407.9	.972	.968	0.017	.020	.049
South America	Isomorphic	142531.8	.895	.887	0.033	.049	.127
	Non-isomorphic	142582.6	.894	.877	0.035	.048	.128
Slovakia	Isomorphic	89931.5	.903	.896	0.042	.044	.136
	Non-isomorphic	89862.3	.907	.894	0.042	.048	.183

Method factor at the between-individual level

Prior cross-cultural research suggests that differences in response styles may affect survey responses in questionnaire format similar to the one used in our instrument (Weijters et al., 2010). Given the structure of our multilevel model, individuals' response style tendencies could have effect at the between-individual level of analysis, while our chief analyses concerned the within-individual level. In other words, by design the method bias would have *only* affected the between-individual level of analysis.

Nevertheless, we sought to explore if adding a common *tau*-equivalent factor (i.e., with all its loadings constrained to be equal) representing response tendency and uncorrelated with the two substantive factors at the between-individual level improved the model fit. To this end, we extended the isomorphic model at the between-individual level to a bifactor model with the loadings of the common factor fixed to 1. Table S10 shows that the introduction of the method factor to the isomorphic model only resulted in a modest improvement of the model fit for the pooled sample. The improvement was particularly noticeable in information criteria (BIC) and $SRMR_{between}$. The limited improvement was expected because up to 80% of variance in the data manifested at the within-individual level, while the common method factor addition solely concerned the between-individual level of analysis. In contrast, comparison of $SRMR_{between}$ for model with (.042) and without the method factor (.082) resulted in an improved model fit.

Comparison of models with and without the method factor in each cultural region (Table S12) showed that the former improved model in every cultural region. However, the method factor loadings were small and mostly insignificant (Table S13) with a possible exception of South Africa. Given that the method factor was not necessary for an unbiased estimate of responses at the within-individual level of analysis, we chose a more parsimonious model without a method factor.

Table S12. Comparing isomorphic models with method factor at the between-individual level and without it, by cultural region

		BIC	CFI	TLI	RMSEA	$SRMR_{within}$	$SRMR_{Between}$
China	No method	87076.7	.899	.892	.042	.047	.116
	with method	86954.6	.913	.900	.040	.046	.086
India	No method	109386.1	.973	.971	.021	.025	.069
	with method	109393.2	.977	.974	.020	.025	.054
Japan & Korea	No method	97996.6	.911	.905	.032	.041	.099
	with method	97897.7	.924	.913	.030	.041	.088
Morocco	No method	73017.9	.926	.921	.029	.050	.124
	with method	72998.8	.936	.927	.027	.050	.071
North America	No method	194187.7	.908	.901	.034	.052	.116
	with method	193938.3	.921	.909	.033	.050	.085
South Africa	No method	210396.6	.968	.966	.018	.022	.079
	with method	210201.5	.983	.981	.013	.021	.034
South America	No method	142531.8	.895	.887	.033	.049	.127
	with method	142406.3	.907	.893	.033	.047	.075
Slovakia	No method	89931.5	.903	.896	.042	.044	.136
	with method	89818.7	.911	.898	.041	.045	.091

Table S13. Standardized factor loadings of the common factor from group-specific two-factor bifactor models with isomorphic group factor loadings, where the group factors are allowed to correlate.

	China	India	Japan & Korea	Morocco	North America	South Africa	South America	Slovakia
think in many ways	**.56**	.14	.15	.18	**.26**	**.47**	**-.41**	.16
care for others' feelings	-.32	.09	**.28**	-.02	**-.48**	.11	**.67**	.20
(intellectual) humility	.01	-.04	-.02	-.17	-.16	.18	**.43**	.29
think logically	**.70**	.11	-.40	.17	**.50**	**.39**	**-.63**	.15
apply experiences	-.15	.08	.08	**.32**	.14	**.28**	-.13	.12
control of emotions	.41	.11	**-.55**	**.31**	**.34**	**.28**	**-.41**	.17
sense of humor	-.06	.21	.27	**-.86**	**-.34**	**.48**	**.40**	**.65**
benefit for their group	**.48**	**.95**	-.29	-.01	.14	**.70**	**-.31**	**.36**
others' perspective	-.23	.12	.07	**-.54**	-.02	**.26**	.18	**.41**
recognize change	.45	.06	.12	.20	**.25**	**.49**	-.16	**.48**
neutral advice	.23	**.29**	.07	**-.68**	**.25**	**.64**	.11	**.74**
hide emotions	**.51**	**.47**	**-.59**	**.51**	**.85**	**.75**	**-.74**	.15
think before acting	**.55**	.11	-.19	.23	**.38**	**.27**	**-.42**	.17
pay attention to divinity	.16	.18	-.11	.03	-.12	**.22**	**.58**	.22
pay attention to emotions	.12	.20	.28	**-.50**	**-.47**	**.29**	**.66**	**.78**
aware of bodily expressions	.07	.15	.13	.20	-.15	**.26**	-.06	**.48**

Note. Bold font means significant loadings, $p < .05$.

Unidimensionality in the ML-CFA

Though our exploratory analyses suggested that a single factor solution had lower fit to the data, the correlations between the latent factors from a two factor solution were moderate to high and positive, r (pooled sample) = .68, $.36 \leq r$(cultural region) < .88 (see Table S14). Therefore, we decided to explicitly compare a single and two factor solution on the isomorphic model. The results in Table S15 show that in all countries the two-factor solution fit the data better than the one-factor solution. Therefore, we continued to proceed with the two-factor model.

Table S14. Correlations between the two factors based on the isomorphic model fit for each cultural group separately and for the pooled sample.

	Between	Within
India	.86	.88
China	.85	.84
South Africa	.91	.83
Slovakia	.64	.77
Japan & Korea	.89	.76
North America	.62	.58
South America	.35	.41
Morocco	.30	.36
Pooled sample	.69	.82

Table S15. Fit indices of the one- and two-factor ML-CFA models (isomorphic, no method factor)

	N factors	BIC	CFI	TLI	RMSEA	$SRMR_{within}$	$SRMR_{Between}$
China	1	87522	.857	.850	.049	.049	.117
	2	87077	.899	.892	.042	.047	.116
India	1	109587	.955	.953	.027	.027	.079
	2	109386	.973	.971	.021	.025	.069
Japan & Korea	1	98292	.878	.872	.037	.047	.106
	2	97997	.911	.905	.032	.041	.099
Morocco	1	73639	.814	.805	.045	.069	.163
	2	73018	.926	.921	.029	.050	.124
North America	1	195919	.824	.816	.046	.062	.141
	2	194188	.908	.901	.034	.052	.116
South Africa	1	210736	.947	.944	.023	.026	.085
	2	210397	.968	.966	.018	.022	.079
South America	1	144058	.762	.750	.050	.071	.179
	2	142532	.895	.887	.033	.049	.127
Slovakia	1	91123	.827	.818	.055	.060	.156
	2	89932	.903	.896	.042	.044	.136

Measurement invariance

To ensure the comparability of the dimensions of wisdom perception across cultures, we tested measurement invariance of the two-factor model (Leitgöb et al., 2023). Due to the structure of our data, which is based on pairwise comparisons, the intercepts and means of the factors were naturally zero. It means that we were able to test only for configural and metric invariance. To test for measurement invariance, we employed a multiple-group multilevel CFA model (Asparouhov & Muthén, 2012). Such a model extends the basic multilevel CFA model by fitting it simultaneously in several cultural regions. It allows us to constrain model parameters across groups. The model fits for the configural, full, and partial metric models are listed in Table S16.

The configural model did not constrain factor loadings (except for those used for model identification). Since we opted for an isomorphic model, the factor loadings were constrained to equality across levels within each group separately, that is, loadings were similar within groups but could vary across groups. Metric invariance model constrained factor loadings to equality across groups. Combined with isomorphism, it resulted in a model that constrained the factor loadings both across levels and between groups. A small difference in the fit between the configural and the metric invariance models was considered evidence of the invariance. Notably, the difference in the fit was quite large for ΔCFI = .021, but acceptable for ΔRMSEA = .003 (per Chen, 2007's criteria). After releasing across-group (but not across-level) constraints on the three factor loadings ("pays attention to nature and divinity," "pay attention to what nature or divinity is telling them," and "aware of bodily expressions") the ΔCFI decreased to an acceptable level (.010). We can conclude that our data supported partial metric invariance. Partial metric invariance allowed us to compare the unstandardized regression coefficients and covariances across groups.

Table S16. Measurement invariance tests of the isomorphic model without method factor

	BIC	CFI	Δ	TLI	Δ	RMSEA	Δ	$SRMR_{within}$	$SRMR_{Between}$
Configural	1,079,658	.922		.918		.032		.026	.071
Partial metric*	1,080,415	.912	.010	.910	.008	.033	.001	.032	.078
Full metric	1,081,374	.901	.021	.901	.017	.035	.003	.034	.081

Note: * Loadings of three items were estimated freely across regions: (1) "pays attention to nature and divinity;" (2) "pay attention to what nature or divinity is telling them;" and (3) "aware of bodily expressions."

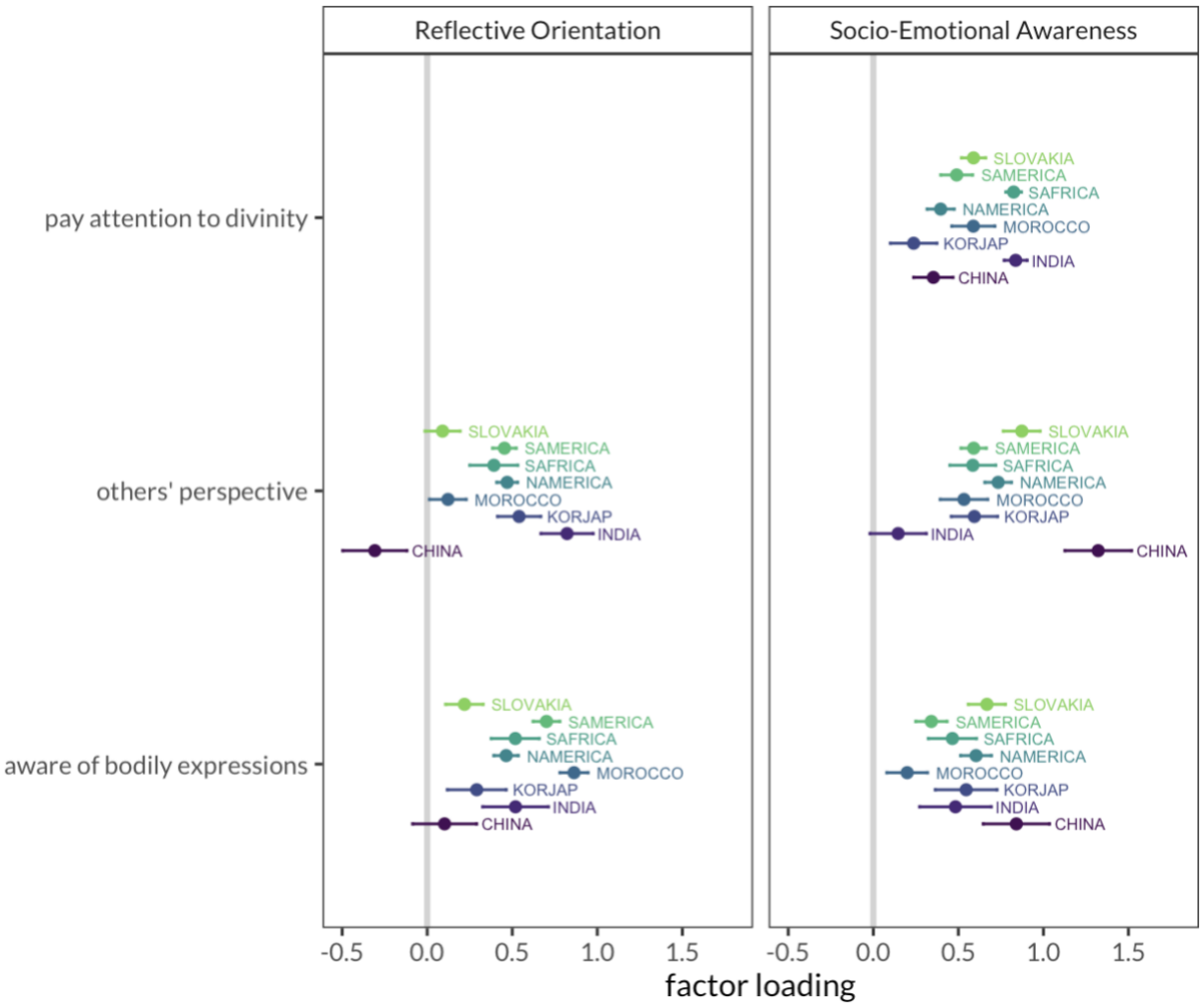

Figure S3. Non-invariant factor loadings estimated by the multiple group ML CFA constraining factor loadings across cultural regions to equality except the ones presented in the figure.

Measurement invariance of the non-isomorphic model as a robustness test. We performed an additional invariance test for non-isomorphic models (lower part of Table S17). Although the non-isomorphic model fit the data slightly better, an overall conclusion remained identical: We observed support of partial metric invariance.

Table S17. Non-isomorphic model without method factor at the between-individual level

	BIC	CFI	Δ	TLI	Δ	RMSEA	Δ	$SRMR_{within}$	$SRMR_{Between}$
Configural	1080058	0.923		0.912		0.033		0.026	0.063
Partial metric*	1080445	0.914	.009	0.910	.002	0.033	.000	0.031	0.070
Full metric	1081210	0.904	.019	0.903	.009	0.034	.001	0.033	0.074

Note: * Loadings of three items were estimated freely across regions: (1) “pays attention to nature and divinity;” (2) “pay attention to what nature or divinity is telling them;” and (3) “aware of bodily expressions.”

ML-CFA in subsets of targets. To further test the robustness of our conclusions, we repeated measurement invariance tests and sample-specific models on subsets of the targets. Although these models could not be directly compared using fit statistics (SEM models based on different samples are non-comparable), Tables S18 and S19 show the fit of the models. While excluding a *12-year-old* target decreased the model fit substantially, the factor loadings stayed virtually the same.[1]

Table S18. Comparison of isomorphic ML-CFA models on subsets of targets, pooled sample

	N	χ^2	CFI	TLI	RMSEA	$SRMR_{within}$	$SRMR_{Between}$
Full set of targets	25,288	3029.5	.956	.953	.022	.028	.082
Excluding $12_{year\text{-}old}$	20,417	3142.9	.929	.924	.025	.035	.081
Excluding 12 and $45_{year\text{-}old}$	17,998	3029.7	.927	.922	.026	.038	.081
Excluding Self	20,168	2719.7	.954	.950	.024	.029	.086
Age groups only (12, 45 and $75_{year\ old}$)	2,614	515.0	.978	.977	.022	.029	.104

Note. *N* = number of observations.

Table S19. Two-factor isomorphic model within each cultural region, including and excluding *12-year-old* target.

	N	model	CFI	TLI	RMSEA	$SRMR_{within}$	$SRMR_{Between}$
China	2250	with 12 yo	.899	.892	.042	.047	.116
	1914	without 12yo	.852	.842	.045	.056	.142
India	2765	with 12 yo	.973	.971	.021	.025	.069
	2596	without 12yo	.971	.970	.021	.025	.067
Japan & Korea	2440	with 12 yo	.911	.905	.032	.041	.099
	2098	without 12yo	.889	.882	.034	.044	.098
Morocco	1786	with 12 yo	.926	.921	.029	.050	.124
	1462	without 12yo	.907	.901	.027	.048	.123
North America	4922	with 12 yo	.908	.901	.034	.052	.116
	4582	without 12yo	.891	.883	.035	.056	.119
South Africa	5221	with 12 yo	.968	.966	.018	.022	.079
	4878	without 12yo	.968	.965	.018	.021	.074
South America	3468	with 12 yo	.895	.887	.033	.049	.127
	3116	without 12yo	.864	.854	.035	.054	.144
Slovakia	2436	with 12 yo	.903	.896	.042	.044	.136
	1977	without 12yo	.872	.863	.043	.057	.121

Note. *N* = number of observations.

[1] Notably, a target of a 12 years old person is not necessarily an outlier. Indeed, in the current sample of targets, young character looked different because the other targets either concern exemplars of wisdom, the self, or an average other person similar to the self. However, one arguably does not have to be an exemplar to possess *some* degree of wisdom, thus the distance between a *12-year-old* and the other targets is likely filled with other targets showing some wisdom. Moreover, there may be targets associated with unwise behavior (e.g., members of negatively stereotyped groups such as a homeless person or people suffering from addictions).

Dimensions of target perception

Table S20. Standardized factor loadings (unstandardized are fixed to be equal at the between and within levels), pooled sample.

	Reflective $_{Between}$	Reflective $_{Within}$	Socio-Emotional Awareness $_{Between}$	Socio-Emotional Awareness $_{Within}$
think before acting[a]	.97	.67		
think in many ways[b]	.96	.65		
recognize change	.95	.64		
control of emotions[a,c]	.92	.61		
think logically[b]	.91	.64		
apply experiences	.86	.61		
hide emotions[c]	.65	.38		
benefit for their group	.47	.29		
aware of bodily expressions	.52	.36	.43	.27
care for others' feelings			.95	.62
(intellectual) humility			.92	.57
pay attention to emotions[d]			.88	.50
neutral advice[e]			.69	.37
others' perspective[e]	.33	.22	.66	.41
sense of humor			.65	.38
pay attention to divinity[d]			.57	.36

Note. [a-e] Residual covariances allowed between items with the same letter superscripts. CFI = .966, TLI = .961; RMSEA = .019; $SRMR_{within}$ = .025; $SRMR_{between}$ = .029.

Associations of the two dimensions of wisdom perception and the explicit ratings of wisdom

We tested associations between the two perception dimensions and the explicit ratings of wisdom. First, we included wisdom ratings into the partial metric model and estimated zero-order correlations between them. Second, we regressed latent dimensions of wisdom perception on explicit ratings of wisdom, knowledgeability, and understanding. Both first and second steps were calculated on the pooled sample and using the multiple group models. Third, we added an interaction term between the two latent dimensions of wisdom perception in predicting explicit ratings of wisdom, knowledgeability, and understanding. This last step was estimated for the single-group pooled sample model.

Correlations between dimensions of wisdom perception and explicit ratings of wisdom

Table S21 shows correlations between behavioral dimensions and ratings of wisdom, knowledgeability, and understanding on a pooled sample and for each cultural region.

The differences between cultural regions were subtle.[2] In every cultural group, Reflective Orientation correlated more with wisdom than did Socio-Emotional Awareness. The two dimensions correlated with the explicit ratings of knowledgeability and understanding in a

[2] Strictly speaking, the correlations cannot be compared across groups given that just the partial metric invariance was supported.

similar way they did with explicit ratings of wisdom. For the pooled sample, within-individual part, knowledgeability correlated much more with Reflective Orientation, r = .50, than with Socio-Emotional Awareness, r =.21. Understanding showed similar correlations with the two dimensions, although the difference between these correlations was smaller: $r_{\text{reflective}}$ = .42 versus $r_{\text{socio-emotional}}$ = .33. These observations suggest that wisdom and knowledge link mostly with Reflective Orientation, while understanding is more balanced in strengths of association between Reflective Orientation and Socio-Emotional Awareness.

In the majority of the regions, correlations of both dimensions with knowledgeability and understanding were similar. However, in North America and China, understanding correlated with Reflective Orientation slightly less than with Socio-Emotional Awareness. It suggests that in these cultural regions, attribution of knowledgeability and understanding were better differentiated when using both dimensions of wisdom perception. In Korea and Japan, as well as Slovakia, the correlations of understanding with the two factors were almost identical, r = .38 and .39, .30 and .27, respectively. And in the other regions the pattern of the factors' correlations with wisdom, knowledgeability, and understanding followed the general tendency: understanding correlated with Socio-Emotional Awareness more than with Reflective Orientation, knowledgeability was closer related to Reflective Orientation than to Socio-Emotional Awareness, while attribution of wisdom showed a moderate to fair association with both latent dimensions of wisdom perception, albeit a somewhat stronger one with Reflective Orientation.

It is also noteworthy that ratings of wisdom and knowledgeability showed more consistent association with each other than with understanding (except for South Africa and Morocco). Moreover, some cultural groups (such as India and Slovakia) showed high intercorrelations of explicit ratings of wisdom, knowledge, and understanding, as well as with the two latent wisdom dimensions. It might point to a *halo* effect, or the holistic (vs analytic) thinking tendencies in these cultural regions.

Table S21. Zero-order correlations between latent dimensions of wisdom perception and explicit attribution of wisdom, knowledge and understanding to the target.

		Pooled	CN	IND	KJ	MO	NA	SAF	SAM	SK
Between										
Wise	Reflective Orientation	**.35**	**.58**	**.36**	**.30**	**.56**	**.59**	**.43**	**.57**	**.35**
	Socio-Emotional Awareness	**.14**	**.40**	**.14**	**.19**	**.33**	**.30**	**.35**	.12	.05
Knowledgeable	Reflective Orientation	**.39**	**.63**	**.44**	**.43**	**.56**	**.64**	**.42**	**.55**	**.34**
	Socio-Emotional Awareness	**.12**	**.38**	**.22**	**.24**	**.19**	**.22**	**.30**	-.03	-.02
Understanding	Reflective Orientation	**.32**	**.52**	**.47**	**.32**	**.57**	**.47**	**.35**	**.46**	.15
	Socio-Emotional Awareness	**.20**	**.57**	**.28**	**.37**	.06	**.54**	**.28**	.02	.06
Knowledgeable	Wise	**.62**	**.65**	**.61**	**.62**	**.64**	**.67**	**.48**	**.64**	**.66**
Understanding	Wise	**.49**	**.45**	**.54**	**.48**	**.51**	**.47**	**.46**	**.50**	**.47**
Knowledgeable	Understanding	**.53**	**.46**	**.64**	**.41**	**.57**	**.43**	**.49**	**.67**	**.41**
Within										
Wise	Reflective Orientation	**.47**	**.48**	**.50**	**.45**	**.50**	**.57**	**.30**	**.56**	**.40**
	Socio-Emotional Awareness	**.23**	**.30**	**.35**	**.26**	**.22**	**.32**	**.14**	**.20**	**.15**
Knowledgeable	Reflective Orientation	**.50**	**.54**	**.52**	**.51**	**.53**	**.61**	**.32**	**.56**	**.43**
	Socio-Emotional Awareness	**.21**	**.31**	**.36**	**.22**	**.18**	**.25**	**.14**	**.09**	**.15**
Understanding	Reflective Orientation	**.42**	**.45**	**.52**	**.38**	**.49**	**.45**	**.28**	**.52**	**.30**
	Socio-Emotional Awareness	**.33**	**.50**	**.39**	**.39**	**.18**	**.53**	**.18**	**.20**	**.27**
Knowledgeable	Wise	**.61**	**.66**	**.62**	**.62**	**.56**	**.69**	**.40**	**.66**	**.72**
Understanding	Wise	**.49**	**.37**	**.61**	**.48**	**.56**	**.49**	**.36**	**.61**	**.46**
Knowledgeable	Understanding	**.47**	**.33**	**.62**	**.40**	**.62**	**.44**	**.41**	**.61**	**.45**

Note. Pooled model as well as partial metric invariance model with added wisdom dimensions controlled for the target's gender. Pooled model fit: CFI = .960, TLI = .955, SRMR = .027/.081; RMSEA = .021. Multiple group model fit: CFI = .915, TLI = .909, SRMR = .026/.067, RMSEA = .032. CN – China, IND – India, KJ – Korea & Japan, MO – Morocco, NA – North America, SAF – South Africa, SAM – South America, SK – Slovakia. Bold font means significant loadings, $p < .05$.

Predicting explicit wisdom ratings with the two dimensions of wisdom perception

Next, we extended both the pooled and multiple group models to the full structural equation models. Figure S4 shows the structure of such a model. The two latent dimensions were predictors of wisdom, knowledgeability, and understanding. At the within-individual level the latter were represented by the differences between reference target and each of the comparison targets in wisdom, knowledgeability, and understanding. At the between-individual level, these were represented by the wisdom, knowledgeability, and understanding of the reference target only.

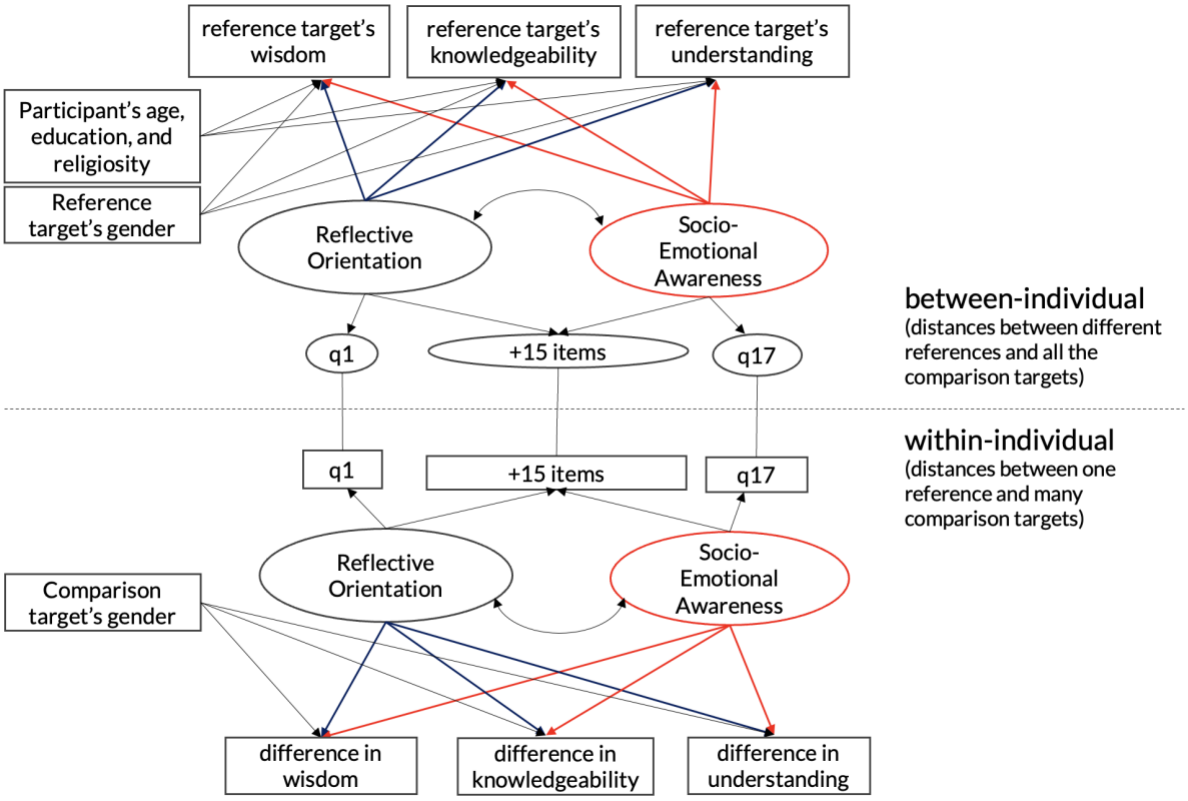

Figure S4. Two-level structural equation model. The measurement part of the model is based on a set of 17 wisdom-related characteristics (see Table S3); at the between-individual level they are represented by their intercepts. The factor loadings from two factors are constrained to be equal across the levels (isomorphic). Two factors were predictors of the explicit ratings of wisdom (as well as understanding and knowledgeability) of the targets. At the within-individual level ratings of wisdom were differences between wisdom of the reference and comparison target; wisdom of the reference target indicated wisdom at the between-individual level. Regressions of wisdom, knowledgeability, and understanding ratings on the two perception factors were controlled by the gender of the target at both levels, and by age, education, and religiosity of the participant at the between-individual level.

In these models, we simultaneously controlled for the gender of the targets (comparison target at the within-person level / reference target at the between-person level). We assigned participants' gender to the gender of "self" target. We could not control for gender directly in the multiple group model analyses, because genders were not represented for some groups (e.g., in China all the targets were either males or gender-neutral, see Table S2). For this reason, in multiple group models we used a pseudo-continuous indicator of gender with -1 referring to

male, 0 referring to gender-neutral, and 1 to female. Thereby, we were able to control for gender differences of targets across all groups.

To control for individual differences in age and education, we added several control variables at the between-individual part of all the ML SEM models. We included age, parental education, and self-reported religiosity. Since religiosity measure was not available in some samples, we did not include it in the multiple group models.

Table S22 shows the regression coefficients of wisdom, knowledgeability, and understanding on the perception dimensions at the pooled sample, and Table S23 and Figure S5 show the coefficients from the multiple group model. The results of regressions differ from the zero-order correlations reported above. Reflective Orientation was still positively and significantly related to attributions of wisdom, knowledgeability, and understanding, whereas Socio-Emotional Awareness demonstrated *negative* effects on knowledgeability and wisdom and a weak positive effect on understanding. Socio-Emotional Awareness showed small and non-significant effects on wisdom in North and South Americas and Morocco. In India and South Africa, Socio-Emotional Awareness had a negative effect on understanding, and in Morocco and South America these effects were non-significant. Similar results were obtained at the between-individual level (and in the group-specific models which were easier to estimate due to lower complexity, see Table S24). Overall, the two dimensions together with control variables explained 22 and 24% of wisdom's variance at the within- and between-individual levels.

Table S22. Standardized regression coefficients of the wisdom perception dimensions predicting explicit ratings of wisdom, knowledgeability, and understanding, obtained from the pooled ML SEM model.

		Dependent Variables		
	Independent Variables	Wise	Knowledgeable	Understanding
Between				
	RO	.69***	.82***	.51***
	SEA	-.46***	-.58***	-.27***
	Gender of targets			
	Female	-.02	-.05*	<|.01|
	Not specififed	-.05**	-.04*	-.05*
	R^2	.24	.18	.11
Within				
	RO	.55***	.63***	.38***
	SEA	-.15***	-.23***	.04*
	Gender of targets			
	Female	-.02**	-.04***	<|.01|
	Not specififed	.04***	.07***	.05***
	R^2	.22	.28	.17

Note. RO = Reflection Orientation. SEA = Socio-Emotional Awareness. The effects of participants' age, religiosity, and education are not shown. Pooled model fit: CFI = 0.958, TLI = 0.951, SRMR = .026/.064; RMSEA = 0.020.

Table S23. Standardized regression coefficients of the wisdom perception dimensions predicting explicit ratings of wisdom, knowledgeability, and understanding, obtained from the multiple group ML SEM model with partially invariant factor loadings.

Dependent	Independent	CN	IN	KJ	MO	NA	SAF	SAM	SK
Between									
Wise	RO	.72***	.89***	.68**	.56***	.60***	.65***	.63***	.59***
	SEA	-.22	-.60**	-.45*	.05	.02	-.23	-.08	-.38**
	Gender (continuous)	-.10	-.02	.06	-.13	-.06	.02	-.15**	-.25***
Knowledgeable	RO	.87***	.98***	.99***	.54***	.70***	.83***	.64***	.66***
	SEA	-.30*	-.64***	-.67*	.03	-.09	-.47*	-.25**	-.49***
	Gender (continuous)	-.14*	-.04	<|.01|	-.17	-.07	-.05	.04	-.23**
Understanding	RO	.17	.91***	-.02	.71***	.21**	.52**	.52***	.21
	SEA	.43***	-.50**	.37	-.17	.46***	-.20	-.16*	-.09
	Gender (continuous)	-.08	.03	<|.01|	.15	-.01	-.04	.05	-.23**
R^2	Wise	.56	.31	.29	.42	.43	.21	.37	.25
	Knowledgeable	.40	.24	.17	.42	.38	.20	.35	.21
	Understanding	.35	.30	.13	.40	.36	.13	.27	.07
Within									
Wise	RO	.73***	.84***	.59***	.45***	.57***	.56***	.59***	.69***
	SEA	-.28***	-.38**	-.19**	.04	<|.01|	-.32***	-.02	-.38***
	Gender (continuous)	-.10***	.02	.12***	-.12***	-.01	-.09***	-.06***	-.02
Knowledgeable	RO	.86***	.89***	.81***	.53***	.69***	.65***	.63***	.76***
	SEA	-.39***	-.41***	-.40***	-.01	-.15***	-.40***	-.15***	-.44***
	Gender (continuous)	-.14***	-.03	.06*	-.08**	.04*	-.08***	.01	-.10***
Understanding	RO	.09	.78***	.18**	.46***	.22***	.42***	.53***	.22***
	SEA	.45***	-.29**	.24***	<|.01|	.42***	-.17**	-.01	.11*
	Gender (continuous)	-.08***	.04*	.12***	-.09***	.06***	-.07***	.04**	-.13***
R^2	Wise	.31	.29	.21	.26	.33	.14	.33	.22
	Knowledgeable	.41	.32	.32	.31	.39	.17	.35	.27
	Understanding	.29	.29	.17	.24	.33	.10	.28	.13

Note. RO = Reflection Orientation. SEA = Socio-Emotional Awareness. The effects of participants' age, religiosity, and education are not shown. Multiple group model fit: CFI = 0.914, TLI = 0.905, SRMR = .031/.061; RMSEA = 0.031. CN – China, IND – India, KJ – Korea & Japan, MO – Morocco, NA – North America, SAF – South Africa, SAM – South America, SK – Slovakia.

Figure S5. Standardized regression coefficients estimated by the ML SEM model in which the two dimensions of wisdom perception predicted explicit ratings of wisdom, knowledgeability, and understanding of targets. Vertical line represents zero. Horizontal bars represent 95% confidence intervals.

Interactions between the two dimensions of wisdom perception in predicting explicit ratings of wisdom, knowledgeability, and understanding

Table S24. A subset of regression coefficients from the ML SEM model at the pooled sample with an interaction term between the two latent variables – dimensions of wisdom perception, Bayesian estimation.

	Wise [95% CI]		Knowledgeable [95% CI]		Understanding [95% CI]	
Between						
Reflective Orientation	.70	[.61 .79]	.81	[.72 .91]	.52	[.43 .62]
Socio-Emotional Awareness	-.43	[-.53 -.34]	-.56	[-.66 -.47]	-.26	[-.35 -.16]
RO x SEA Interaction	.07	[.04 .10]	.03	[.001 .06]	.05	[.02 .08]
Target gender - female	-.05	[-.09 -.01]	-.06	[-.09 -.02]	-.02	[-.06 .02]
Target gender – not specified	-.07	[-.11 -.03]	-.04	[-.08 -.001]	-.06	[-.10 -.02]
Within						
Reflective Orientation	.51	[.48 .53]	.59	[.56 .61]	.33	[.30 .35]
Socio-Emotional Awareness	-.15	[-.18 -.12]	-.23	[-.27 -.21]	.05	[.02 .08]
RO x SEA Interaction	.09	[.08 .10]	.10	[.09 .11]	.09	[.08 .11]
Target gender - female	.02	[.01 .04]	.03	[.02 .05]	.001	[-.01 .02]
Target gender – not specified	-.04	[-.06 -.03]	-.08	[-.09 -.06]	-.06	[-.07 -.04]

Note. RO = Reflection Orientation. SEA = Socio-emotional Awareness. 95% CI – Bayesian credible intervals. The regression coefficients are unstandardized, estimated by the Bayesian model, see traceplots and other convergence information in OSF directory https://osf.io/m4dxv/?view_only=a971ec7db19c4ced877080abd3c9cc2b.

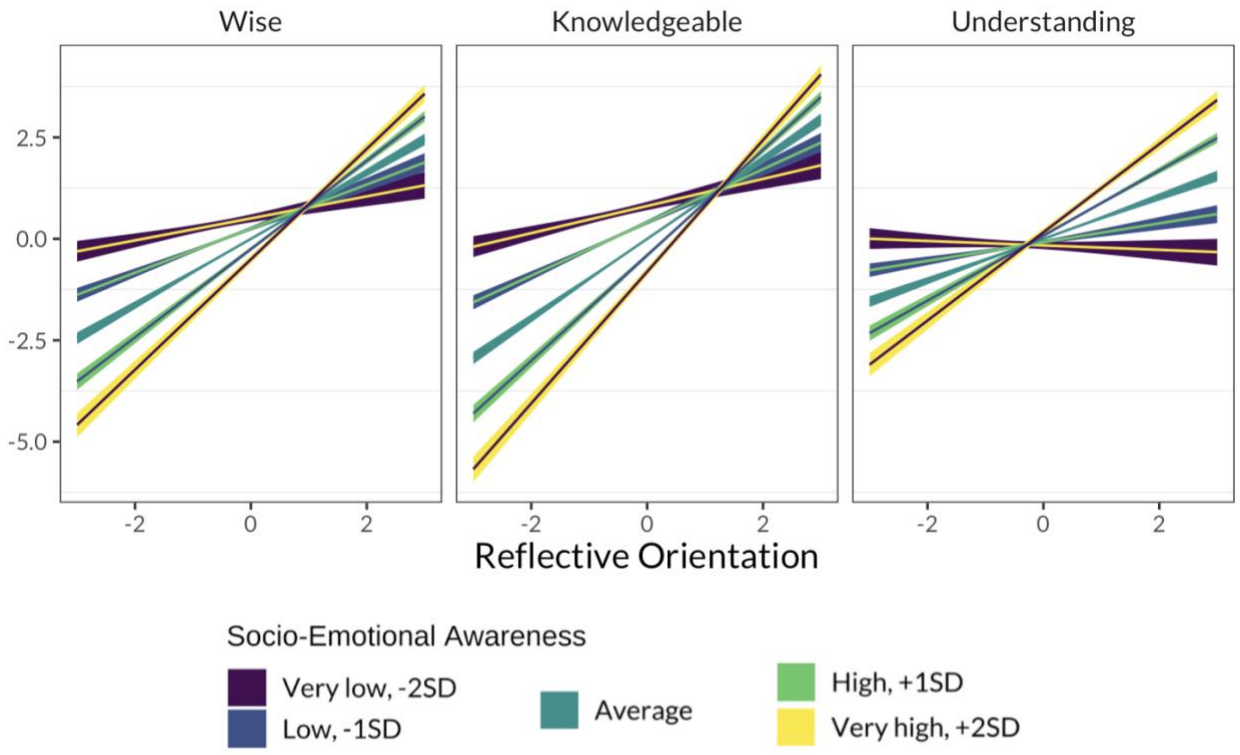

Figure S6. Differences between interactive effects in predicting wisdom, knowledgeability, and understanding with Reflective Orientation and Socio-Emotional Awareness
Note. The height of the ribbons is 95% credible interval; SD is the standard deviation.

Multiple group model was not estimable due to high complexity of the latent variable interactions modeling; therefore, we fitted the ML SEM with interactions within each cultural region separately (Table S25). Models fitted within each of the cultural groups revealed similar pattern of results as the pooled model at the within level: Effects of Reflective Orientation were positive, strong, and stable across models and regions; effects of Socio-Emotional Awareness varied across regions, but in general tended to be negative for wisdom and knowledgeability and positive for understanding (with exception of India and South Africa). Interaction terms were positive and significant in most cases: more pronounced for knowledgeability and understanding, but less so for wisdom. Among cultural groups, Morocco showed the least number of significant effects; under most conditions all effects except the one for Reflective Orientation were close to zero. In contrast, models fit in North America and China showed the clearest differentiation between prediction of wisdom and knowledgeability on one hand and understanding on the other. At the between-individual level, the results replicated the ones at the within-individual level, albeit showed larger coefficients and larger standard errors.

Table S25. Cross-regional consistency of effects on ratings of wisdom, knowledgeability, and understanding is higher for Reflective Orientation as compared to Socio-Emotional Awareness. A subset of unstandardized regression coefficients from the ML SEM model with an interaction term between the two latent variables – dimensions of wisdom perception, fitted in each region separately.

		CN	IN	KJ	MO	NA	SAf	SAm	SK
Between									
Wise	Reflective Orientation	2.04***	2.03***	1.93*	1.52***	1.26***	1.29***	1.42***	1.42***
	Socio-Emotional Awareness	-.71*	-1.51***	-1.30	.16	.16	-.27	.17	-.85**
	Interaction	.57*	-.23	.01	.57	-.47*	-.09	-1.00***	-.31
Knowledgeable	Reflective Orientation	2.92***	2.31***	3.19**	1.29***	1.51***	1.72***	1.34***	1.59***
	Socio-Emotional Awareness	-1.11**	-1.63***	-2.19*	.27	-.03	-.83**	-.09	-1.26***
	Interaction	.85**	-.46*	-.17	.91	-.79**	-.16	-1.61***	-1.21*
Understanding	Reflective Orientation	.61	2.19***	-.72	1.62***	.60**	.77*	1.07***	.55*
	Socio-Emotional Awareness	1.17**	-1.30***	1.33	-.61	1.06***	-.07	-.01	-.23
	Interaction	.56*	-.34*	-.06	-.20	.08	-.02	-1.49***	.14
Within									
Wise	Reflective Orientation	1.06***	1.29***	.70***	.78***	.71***	.85***	.84***	.67***
	Socio-Emotional Awareness	-.43***	-.70***	-.13*	.07	.05	-.47***	.04	-.47***
	Interaction	.08*	.32***	.09*	.07	.21***	.28***	.23***	.22***
Knowledgeable	Reflective Orientation	1.51***	1.42***	1.10***	.87***	.90***	.97***	.84***	.80***
	Socio-Emotional Awareness	-.71***	-.79***	-.40***	-.04	-.18***	-.58***	-.10*	-.59***
	Interaction	.11*	.31***	.19***	.22**	.27***	.29***	.25***	.27***
Understanding	Reflective Orientation	.01	1.18***	.20*	.73***	.24***	.55***	.70***	.13**
	Socio-Emotional Awareness	.69***	-.54***	.36***	.01	.63***	-.15	.07*	.09*
	Interaction	.13**	.31***	.10**	.25**	.20***	.32***	.22***	.14***

Note: Results are fitted with Bayesian method. *** 99% credible interval does not include zero. ** 95% credible interval does not include zero. * 90% credible interval does not include zero.

Robustness checks of regressions of ratings of wisdom, knowledgeability and understanding on the two dimensions of wisdom perception

Since the two dimensions of wisdom perception were positively correlated, we ran a series of robustness checks. The first test was fitting the regularized (lasso) models to check if the two factors, and their interaction, uniquely contributed to the ratings of wisdom.

Furthermore, we used different subsets of targets. An outlier target (characterized by unique qualities, e.g., extremely wise and extremely low on both dimensions of wisdom perception) might have biased the results, exaggerating or attenuating the association between the explicit ratings of wisdom and the two dimensions of wisdom perception. As is apparent from the next section, one target, namely the *12-year-old* target, stood out from the list of targets. We tested the same model against subsamples excluding the *12-year-old* (M1), excluding all three age groups (M2), including age groups only (M3), five targets defined by their occupation only (M4), and two ways to random selection of targets: In the first (M5), targets were randomly selected within each individual independently (pseudo-randomization of stimuli targets). Another approach to random selection is to select targets randomly for all individuals (M6).

Results in Table S26 show different inclusions of targets (M1-M6) only slightly changed the main effects of Reflective Orientation and Socio-Emotional Awareness on wisdom. These coefficients were the lowest when the sample excluded the *12-year-old* target. Yet in every subset of targets the effects were highly significant and large in size. In all of them, the coefficients were quite similar to the ones obtained on the full sample, showing that the outlier targets did not bias the results.

The main effects of Reflective Orientation and Socio-Emotional Awareness showed the same tendency with regard to knowledgeability, and Reflective Orientation showed similarly stable tendencies with regard to understanding. However, the positive association between Socio-Emotional Awareness and understanding varied across different subsets of targets. It was substantial when all the targets were included, when only professional targets were included, and when the *12-year-old* or all the age-defined targets were excluded from analyses. However, it was negligible when only the age-defined targets were included (M3) and when the subsets of targets were chosen at random for analyses (M5-M6). This finding suggests that the effect of Socio-Emotional Awareness on ratings of understanding is unstable and depends on the specific set of targets in the study. Interestingly, it seems to come from a combination of targets defined by their occupation.

Unlike the main effects, the interaction effect was less stable when performing robustness checks. In most analyses (including penalized lasso regression on factor scores) it was not significant; in some subsamples it switched the sign. Dropping the *12-year-old* and other age-defined targets (M1-M2) as well as limiting the target list to professional groups led the interaction term to switch sign to negative. If we are to unpack the latter interaction results, then it should go as follows: To be considered wise, a target should be higher on Reflective Orientation and lower on Socio-Emotional Awareness. The difference from the main analysis is that here, among the targets higher on Socio-Emotional Awareness, the importance of Reflective Orientation decreases (while it increased when the *12-year-old* was retained among the targets in the main analysis). For example, the *politician*, *scientist*, and *12-year-old* were the lowest on Socio-Emotional Awareness. Reflective Orientation was important when comparing a *12-year-old* and a *politician* on wisdom, but less when comparing a *politician* and a *scientist*.

Together, these results suggest that the main effects are robust while the interaction terms are less so, because interaction terms switched signs and varied in their magnitude across different subsets of targets.

Table S26. Standardized regression coefficients estimated by a series of Lasso regressions with *predicted factor scores of the two wisdom perception dimensions* as predictors

	M0	M1	M2	M3	M4	M5	M6
	All targets	No 12yo group	No age groups	Age groups only	Professions only	Randomly selected targets within individual	Random selection of targets for all individuals
$r_{dimensions}$	0.79	0.75	0.73	0.86	0.72 0.79	0.84	
Wise							
Reflective Orientation	0.98***	0.83***	0.85***	1.11***	0.86***	1.00***	1.10***
Socio-Emotional Awareness	-0.29***	-0.27***	-0.27***	-0.36***	-0.21***	-0.30***	-0.38***
Interaction	0.01	-0.11***	-0.10**	0.02	-0.12**	0.01	0.02
Lambda	0.0010	0.0007	0.0007	0.0010	0.0007	0.0011	0.0011
Knowledgeable							
Rational	1.19***	1.07***	1.11***	1.11***	1.14***	1.19***	1.27***
Socio-Emotional Awareness	-0.50***	-0.52***	-0.54***	-0.37***	-0.47***	-0.47***	-0.49***
Interaction	0.06*	-0.10**	-0.10**	0.08*	-0.13**	0.06	0.07*
Lambda	0.0011	7e-04	0.0008	0.0009	0.0008	0.0011	0.0011
Understanding							
Rational	0.63***	0.47***	0.47***	0.80***	0.55***	0.65***	0.78***
Socio-Emotional Awareness	0.12***	0.15***	0.17***	0	0.15**	0.10	-0.01
Interaction	0	-0.11***	-0.09*	0.01	-0.10*	0.01	0.04
Lambda	0.0022	0.0013	0.0013	0.0033	0.0014	0.0023	0.0030

Note. *** 99% confidence interval does not include zero. ** 95% confidence interval does not include zero. * 90% confidence interval does not include zero. We estimated confidence intervals via bootstrapping. Lasso regressions involve an arbitrarily set penalization parameter lambda; in order to avoid arbitrariness we used cross-validation technique to determine an optimal lambda for each model. The models describe the within-individual level estimated at the pooled sample. $r_{dimensions}$ – correlation between factor scores of Reflective Orientation and Socio-emotional awareness in each subsample.

Target rankings

General ranking

Figure S7 presents the overall ratings of the targets by wisdom, knowledgeability, and understanding. The *doctor*, *scientist*, and *75-year-old* were rated the wisest. Participants rated the *12-year-old* target the least wise, followed by the *religious* person. The self, *45-year-old* target and *politician* were rated essentially average (~3 points) on wisdom. Table S26 lists the effects of nine targets on wisdom attribution. "You" served as a reference category, and effects of all the other targets were estimated relative to the answers to "you" and represent differences from answers to "you." Controlling for gender (Table S27) did not change the order of the targets' wisdom. The target's gender did not have an effect on its wisdom attribution.

Figure S7 also demonstrates overall ratings of the targets by their knowledgeability and understanding. The ratings seem very similar across wisdom and these variables with a noteworthy exception of the *politician* and *fair person* – the *politician* was more knowledgeable, but less wise, and low on understanding, whereas the *fair person* was rated as very understanding, but less wise and knowledgeable. Including gender as a covariate (see Table S27) did not change the order of targets by their wisdom, knowledgeability, and understanding.

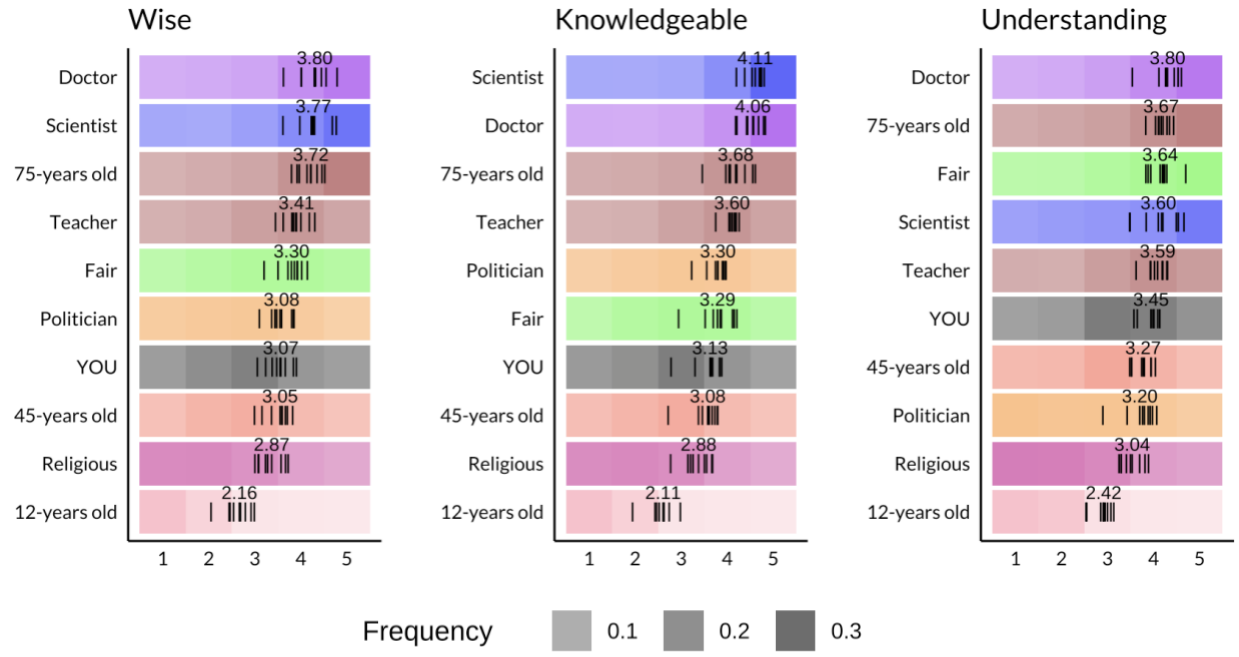

Figure S7. Frequencies and means of wisdom, knowledgeability, and understanding for each target. Vertical ticks represent differences (means) across cultural regions.

Table S27 lists the effects of nine targets on the two latent dimensions of wisdom perception. Interestingly, a *politician* was perceived as average on Reflective Orientation and low on Socio-Emotional Awareness. As mentioned above, female targets compared to male ones were rated lower on Reflective Orientation and Socio-Emotional Awareness.

Table S27. Regression coefficients of the two dimensions of wisdom perception and explicit ratings of wisdom, knowledgeability, and understanding on targets.

Independent variables	Dependent variables				
	Reflective Orientation	Socio-Emotional Awareness	Wise	Knowledgeable	Understanding
You	*Ref*				
Religious	-.11***	-.06***	-.07***	-.09***	-.14***
12-year-old	-.49***	-.34***	-.31***	-.33***	-.37***
45-year-old	-.04***	-.05***	<|.01|	-.03***	-.06***
75-year-old	.08***	-.01	.23***	.17***	.08***
Politician	.10***	-.19***	.01	.05***	-.10***
Doctor	.17***	-.04***	.25***	.29***	.11***
Scientist	.14***	-.09***	.24***	.31***	.04***
Fair	.04***	.04***	.08***	.04***	.06***
Teacher	.09***	.03**	.12***	.15***	.03***
Target is female	-.02**	.01	.01	-.03***	.02*
Target's gender is not specified	-.07***	-.08***	-.01	-.04***	.02*

Note. Pooled sample model controlling for the target's gender. Model fit: CFI = .916; TLI = .897; RMSEA = 0.027; $SRMR_{within}$ = .031; $SRMR_{between}$ = .063.

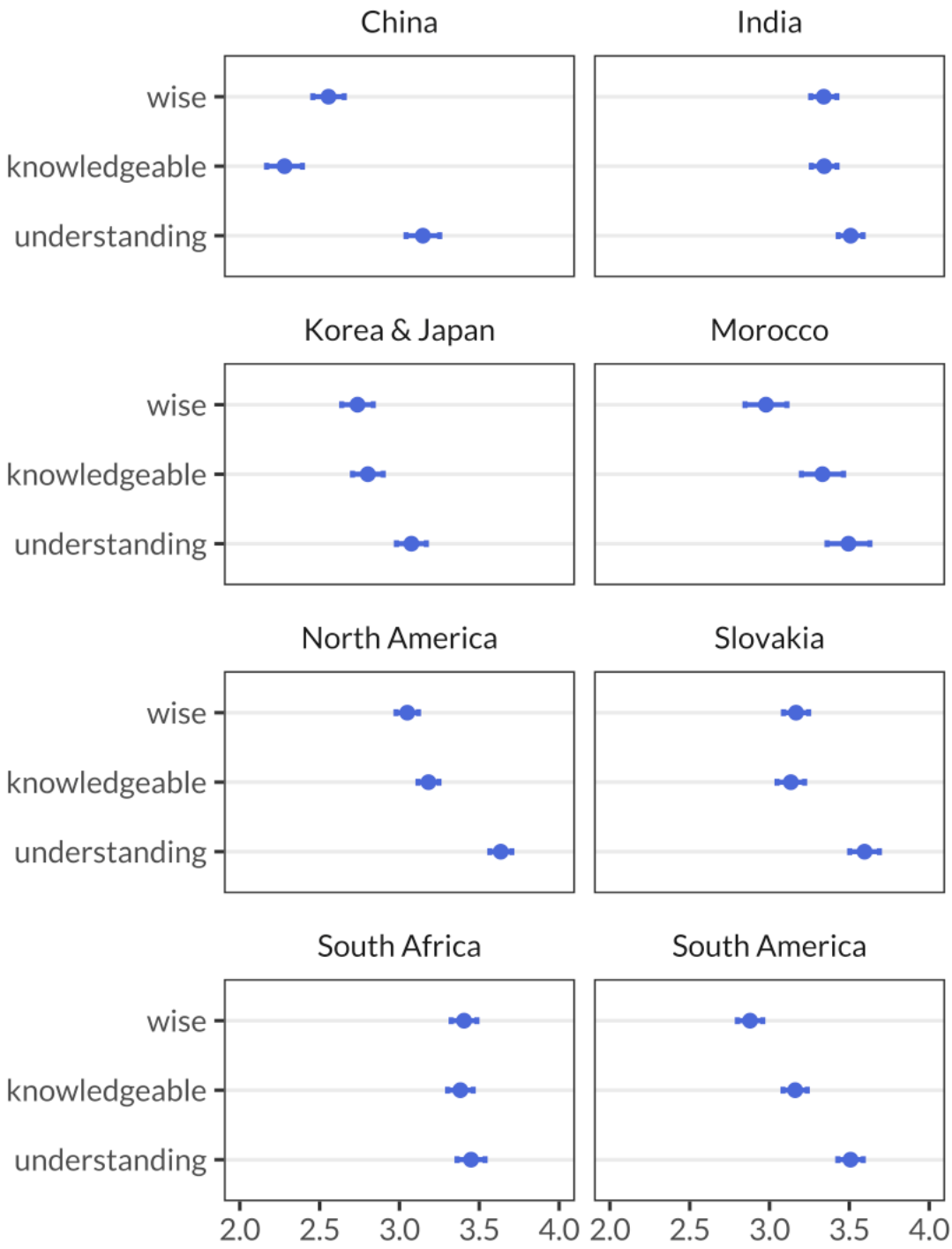

Figure S8. Average ratings of wisdom of self and other targets across cultural regions. Horizontal bar stands for 95% CI of the mean self-rating.

Stability across cultural regions

We evaluated the stability of targets' ratings across cultural regions (see Table S28). These coefficients were comparable across cultural regions because in prior analyses we established partial metric invariance. To correlate the coefficients, we computed correlations of targets' positions (regression coefficients for nine targets) between cultural regions. It resulted in twenty-eight correlation estimates. Figure S9 shows the distributions of intercorrelations between the targets' positions on the two dimensions. It is apparent that the stability of Reflective Orientation was substantially higher.

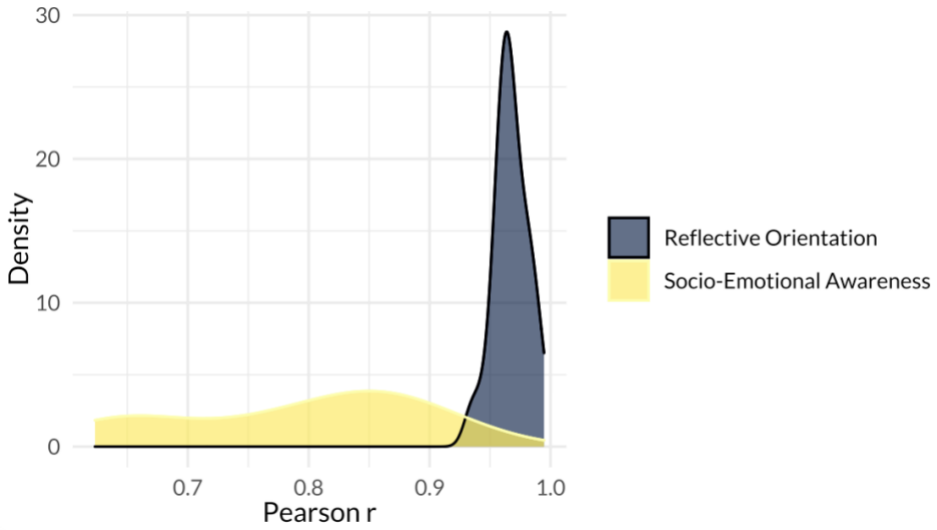

Figure S9. Distribution of intercorrelations between target's positions on the two latent dimensions across cultural regions

As an additional step, we obtained a model-estimated measure of the stability of the target's positions across cultural regions. We estimated a new parameter in the model. This parameter was a function of targets' effects on the two dimensions. First, we standardized the parameters by the variance of latent variables. Next, we computed a standard deviation for each target across regions to capture its variability and averaged these standard deviations across targets. Finally, we computed the difference between these two measures of cross-regional variability. The estimated parameters are listed in Table S28. An overall estimate of cross-regional variability of target's ratings (average *SD*) was .11 and .18 for Reflective Orientation and Socio-Emotional Awareness, with associated effect sizes of d = .13 and .19, respectively. These estimates of effect size suggest a moderate-level effect of cultural variability. Most of the variability of Reflective Orientations came from differences in the ratings of the *12-year-old, 45-year-old,* and *religious* person. The *politician*'s Socio-Emotional Awareness varied the most across regions, followed by the Socio-Emotional Awareness of the 75-year-old, *scientist*, and *doctor*.

Notably, the difference in the variabilities of targets between Reflective Orientation and Socio-Emotional Awareness was .07 with d = .06, which suggests that the ratings of targets by Reflective Orientation were more stable across cultures than the ratings by Socio-Emotional Awareness. However, the size of the differences in stability was relatively small, t = 4.9, d = .06.

Table S28. Estimates of cross-regional variability in targets' ratings along the two perception dimensions.

	Reflective Orientation		Socio-Emotional Awareness		Difference	
target	Estimate of cross-regional variability	*d*	Estimate of cross-regional variability	*d*	Estimate of cross-regional variability	*d*
12-year-old	.22***	.13	.18***	.08	-.04	-.02
45-year-old	.13***	.08	.13***	.07	<|.01|	<|.01|
75-year-old	.08***	.05	.19***	.11	.11***	.06
Doctor	.06*	.03	.20***	.10	.14***	.05
Fair	.12***	.07	.12***	.06	<|.01|	<|.01|
Politician	.08***	.05	.27***	.14	.19***	.07
Religious	.13***	.08	.18***	.09	.05	.02
Scientist	.09***	.05	.20***	.10	.11***	.06
Teacher	.05*	.03	.16***	.09	.11***	.05
Mean	.11***	.13	.18***	.19	.07***	.06

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