

Measuring Intellectual Humility in an Online Environment

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While not vast, there is a significant literature on measuring humility (IH) in a general sense, but a much smaller literature on specific measures of intellectual humility. Several of these more specific measures are inappropriate for a study of an online environment because of their domain specificity and length. Leary et al.'s (2017) IH Scale provides the best measure of individual perceptions of their own dispositional IH, while an adaptation of McElroy et al.'s (2014) Intellectual Openness (IO) subscale holds out the most promise in measuring the level of IH in a group in an online environment *post hoc*. Several items used in studies of the Citizens' Initiative Review provide a possible alternative to the IO subscale. While likely usable measures, researchers have tested none of these in the field, which is the next important step in measuring intellectual humility in an online environment.

Measuring Humility

There is no deficit of measures of humility in broad terms, as illustrated by the following table from Davis and Hook (2014).

TABLE 1

Summary of Content Themes in Humility Measures

Humility Scale	OO	O/LS	IM	AVS	AM/T	RNS	SE
Cultural humility scale (Hook et al., 2013)	X	X					
Dispositional Humility Scale (Landrum et al., 2011)	X		X	X	X	X	
Expressed Humility Scale (Owens, Johnson, & Mitchell, 2012)	X			X	X		
Honesty humility scale (Ashton & Lee, 2004)			X			X	
Humility Differentials (Rowatt et al., 2006)		X	X	X			
Humility Inventory (Brown et al., 2013)	X	X	X	X	X		
Humility subscale (Dierendonck & Nuijten, 2013)	X		X	X	X		
Implicit Associations Test (Rowatt et al., 2006)	X	X	X	X			
Intellectual humility scale (McElroy et al., 2014)	X	X	X	X	X		
Modesty factor of the NEO-PI-3 (Costa et al., 2005)		X	X	X			
Relational humility scale (Davis et al., 2011)	X	X	X	X			
Rosemead Humility Scale (Bollinger et al., 2006)	X	X		X	X		X
Spiritual Humility Scale (Davis et al., 2008)		X					X
Values in Action Strengths Inventory (Peterson & Seligman, 2004)		X	X				

Note. Grey box = content included on the scale; OO = Other-oriented/unselfish; O/LS = Openness/lack of superiority; IM = interpersonal modesty; AVS = accurate view of self; AM/T = willing to admit mistakes/teachable; RNS = regulation of need for status; SE = spiritual or existential humility.

In contrast to this extensive list, attempts to measure specifically *intellectual* humility (IH) are scarcer. I was able to identify four attempts to measure IH, the most recent of which is the most appropriate for measuring it in an online environment. While the best option, there are still shortcomings in it that require adaptation.

Measuring Intellectual Humility

The first two measures of IH come a special issue on intellectual humility in the *Journal of Psychology & Theology*; the context of the publication is important in assessing their adaptability to an online study.

Hopkin, Hoyle and Toner (2014)

Hopkin, Hoyle and Toner state that their “research is motivated in part by the need for empirical research on the antecedents and consequences of intellectual humility with regard to religious beliefs. [Their] specific question is how intellectual humility and religiosity interact to affect people's attitudes and behaviors” (2014, 51). To create a measure of IH that would allow them to analyze this research question, they used factor analysis of 23 self-report items; results indicated that the best solution included four factors that they label: awareness of fallibility of beliefs, discretion in asserting beliefs, comfort keeping beliefs private, and respect for others' beliefs (2014, 53). The difficulty for an online study of news comments is that they freely admit that they are interested in a domain-specific measure that focuses on religious beliefs, and that their “goal was not to produce a formal measure for use beyond [their] study but rather to produce a credible operationalization of the construct for tests of [their] hypotheses” (2014, 53). While it might be possible to adapt these items and scales for an online environment concerned with more than religious belief, later measures make this unnecessary and inefficient.

McElroy et al. (2014)

McElroy et al. define IH as involving “having (a) insight about the limits of one's knowledge, marked by openness to new ideas; and (b) regulating arrogance, marked by the ability to present one's ideas in a non-offensive manner and receive contrary ideas without taking offense, even when confronted with alternative viewpoints” (2014, 20). They differentiate between general humility and IH by claiming that IH is more specific, “much like verbal intelligence is theorized to be a sub-domain of general intelligence” (McElroy et al. 2014, 20). The central research question of their study is how the perceptions of IH in religious leaders “regulate other relational constructs” (McElroy et al. 2014, 21). To operationalize their key variable, they use three studies to develop the Intellectual Humility Scale (IHS) from a list of 60 face-valid items. Factor analysis results suggested two components of the IHS based upon 16 items: “*Intellectual Openness* (IO) (e.g., ‘Is open to others' ideas’) and *Intellectual Arrogance* (IA) (e.g., ‘Has little patience for others beliefs.’)” (McElroy et al. 2014, 22). Unlike Hopkin, Hoyle and Toner (2014), the items McElroy et al. (2014) tested are general, rather than domain-specific; as such, they are more appropriate for a study less focused on religious beliefs. The other differentiating feature of the IHS is that it asks respondents, not about themselves, but about a target (e.g., a religious leader). As such, it measures peoples' *perceptions* of the intellectual humility of others, and researchers would have to ask about *specific* others, of which there would be many in any online group. Given this limitation, the entire IHS is not the most appropriate for use in an online environment, but as we will discuss below, some of the IHS items are likely usable to measure perceptions of intellectual humility in certain online environments.

Krumrei-Mancuso and Rouse 2016

The third example of a specific measure of intellectual humility is: a) not domain specific, and b) a self-report measure. Krumrei-Mancuso and Rouse define IH “as a nonthreatening awareness of one's intellectual fallibility. Such an awareness brings with it a healthy independence between one's intellect and ego, meaning that a person will not feel threatened by intellectual disagreements, will not be overconfident about his or her knowledge, will respect the viewpoints of others, and will be open to

revising his or her viewpoints. As such, we conceptualized IH as both an intrapersonal and interpersonal construct” (2016, 212). They clearly differentiate themselves from Hopkin, Hoyle and Toner (2014) and McElroy et al. (2014), and describe the advantages of their Comprehensive Intellectual Humility Scale (CIHS):

To our awareness, the CIHS is currently the only self-report measure of general IH. Two scales of IH have previously been published, one specific to religious humility (Hopkin et al., 2014) and one that was validated as an informant-report measure (McElroy et al., 2014). Hopkin et al.’s (2014) measure assesses respondents’ humility with regard to religious and spiritual beliefs and viewpoints, whereas the CIHS assesses general IH regarding any kind of beliefs, opinions, and values that are important to the individual. In comparison to McElroy et al.’s IHS, the CIHS might have stronger construct validity by assessing four rather than two domains of IH. The CIHS also takes a complementary approach to the IHS, which is an informant-report measure and, therefore, might be most accurate in assessing observable behaviors. The CIHS is completed by the target individual rather than an observer, and thereby might be more effective at assessing intrapsychic feelings, attitudes, and beliefs that are not necessarily observable by others. (Krumrei-Mancuso and Rouse 2016, 220)

Since this measure initially appears that it would fit an online environment most closely, it is helpful to understand their hypotheses and tests in some detail (see Appendix I). Despite the strengths of the CIHS, a major concern with using it as part of a study in an online environment—or for any field experiment or larger survey—is one that also affects many other psychometric measures: the CIHS utilizes 22 items for one overall scale and four sub-scales—independence of intellect and ego, openness to revising one’s viewpoint, respect for others’ viewpoints, and lack of intellectual overconfidence (Krumrei-Mancuso and Rouse 2016, 213). The following is the table they present with the items and factor loadings of each sub-scale:

Table 1. Factor pattern of principal-axis factor analysis of retained items with Promax rotation.

Items	Factor 1	Factor 2	Factor 3	Factor 4	h^2
73. I feel small when others disagree with me on topics that are close to my heart. ^a	0.82	0.12	-0.09	-0.09	0.65
50. When someone contradicts my most important beliefs, it feels like a personal attack. ^a	0.80	-0.07	0.01	0.12	0.69
49. When someone disagrees with ideas that are important to me, it feels as though I'm being attacked. ^a	0.78	0.01	0.04	0.04	0.67
53. I tend to feel threatened when others disagree with me on topics that are close to my heart. ^a	0.77	-0.12	0.07	0.08	0.61
68. When someone disagrees with ideas that are important to me, it makes me feel insignificant. ^a	0.75	0.10	-0.03	-0.12	0.56
28. I am open to revising my important beliefs in the face of new information.	0.03	0.77	-0.04	-0.01	0.56
26. I am willing to change my position on an important issue in the face of good reasons.	0.02	0.73	-0.01	0.00	0.53
29. I am willing to change my opinions on the basis of compelling reason.	0.08	0.69	-0.02	-0.04	0.49
25. I have at times changed opinions that were important to me, when someone showed me I was wrong.	-0.07	0.61	0.06	0.04	0.41
33. I'm willing to change my mind once it's made up about an important topic.	-0.01	0.49	0.05	0.14	0.33
61. I can respect others, even if I disagree with them in important ways.	0.02	-0.19	0.84	0.01	0.56
47. I can have great respect for someone, even when we don't see eye-to-eye on important topics.	0.02	-0.02	0.82	-0.08	0.62
39. Even when I disagree with others, I can recognize that they have sound points.	-0.05	0.18	0.64	-0.05	0.54
65. I am willing to hear others out, even if I disagree with them.	0.06	0.21	0.56	-0.09	0.51
45. I welcome different ways of thinking about important topics.	-0.02	0.25	0.47	0.10	0.50
34. I respect that there are ways of making important decisions that are different from the way I make decisions.	-0.06	0.19	0.46	0.10	0.39
1. My ideas are usually better than other people's ideas. ^a	0.02	-0.11	-0.02	0.68	0.42
3. For the most part, others have more to learn from me than I have to learn from them. ^a	-0.09	0.08	-0.06	0.66	0.41
9. When I am really confident in a belief, there is very little chance that belief is wrong. ^a	0.01	-0.05	0.15	0.59	0.43
24. On important topics, I am not likely to be swayed by the viewpoints of others. ^a	0.06	0.06	-0.06	0.50	0.26
21. I'd rather rely on my own knowledge about most topics than turn to others for expertise. ^a	-0.04	0.14	-0.06	0.46	0.24
41. Listening to perspectives of others seldom changes my important opinions. ^a	0.09	0.02	0.00	0.46	0.29
Initial eigenvalue	6.81	2.45	2.11	1.23	
Initial % variance	30.94	11.15	9.58	5.58	
Extraction % variance	28.76	9.27	6.83	3.38	
Rotation sum of squared loadings	4.28	4.70	4.95	3.11	
Correlation with Factor 1	1.00				
Correlation with Factor 2	0.38	1.00			
Correlation with Factor 3	0.41	0.67	1.00		
Correlation with Factor 4	0.33	0.31	0.40	1.00	

Note. $N = 308$. h^2 = communality coefficient. Factor labels are as follows: Factor 1, independence of intellect and ego; Factor 2, openness to revising one's viewpoint; Factor 3, respect for others' viewpoints; Factor 4, lack of intellectual overconfidence. Bold formatting represents factor loadings of items.
^aReverse-coded items.

Committing 22 items on a survey to one construct, even with four sub-scales, can be prohibitive unless the study focuses almost solely on that construct, an issue that is less problematic in a laboratory setting where participants have the time and incentives to complete all items in a survey. In addition, there are problems with test-retest reliability with the CIHS. The authors write:

Scores for the CIHS were stable over 1- and 3-month periods, which represent relatively long follow-up times for test-retest reliability (Weiner & Greene, 2008). The full scale met Weiner and Greene's (2008) recommended correlation coefficient of .75 as a general standard for short-term test-retest reliability (ranging from 1 day to a few weeks). The longer term test-retest fell below this level, at .70. Test-retest reliability for the sub-scales fell below this standard for both test-retest periods, supporting the use of the full scale CIHS score. (Krumrei-Mancuso and Rouse 2016, 220).

Thus, even though the factor analysis revealed four sub-scales, the test-retest reliability assessment indicates that only the full 22-item measure is reliable. The length of the CIHS and these test-retest results suggest that it is not the best measure of IH to utilize in an online environment.

Leary et al. 2017

The most recent scale for intellectual humility I found is also the best for an online environment, and more specifically, the Scholio study of intellectual humility in online news comments. Leary et al. define IH as "recognizing that a particular personal belief may be fallible, accompanied by an appropriate attentiveness to limitations in the evidentiary basis of that belief and to one's own limitations in obtaining and evaluating relevant information" (2017, 793). They develop their measure in the context

of a study examining “the cognitive, emotional, motivational, and interpersonal concomitants of high and low intellectual humility” (Leary et al. 2017, 794). From an initial list of 23 items, they found that six items loaded well on a single factor (Leary et al. 2017, 795):

Table 1. Intellectual Humility Scale Items and Corrected Item-Total Correlations (Study 1).

	Item-total <i>r</i>
I question my own opinions, positions, and viewpoints because they could be wrong.	.49
I reconsider my opinions when presented with new evidence.	.63
I recognize the value in opinions that are different from my own.	.51
I accept that my beliefs and attitudes may be wrong.	.73
In the face of conflicting evidence, I am open to changing my opinions.	.73
I like finding out new information that differs from what I already think is true.	.44

Note. Participants responded to each item on a 5-point scale with endpoints labeled *not at all like me* and *very much like me*.

This measure is general—it applies to a broad range of beliefs, attitudes and opinions—and self-reported. As such, it retains many of the strengths the CIHS has over previous measures that were domain specific or target-reported. Yet it also has the advantage of meeting validity assessments while utilizing just six items.¹ Thus, it’s brevity and validity make it the most appropriate for a survey or field study in an online environment that investigates several constructs beyond just intellectual humility.

An adaptation of the IH Scale² appropriate for such a survey is as follows:

[QX] How well do the following statements describe you?

	0 not at all like me	1	2	3	4 very much like me
I accept that my beliefs and attitudes may be wrong.					
I like finding out new information that differs from what I already think is true.					
I question my own opinions, positions, and viewpoints because they could be wrong.					
I recognize the value in opinions that are different from my own.					

¹ I must acknowledge that Leary et al. (2017) do not report any test-retest reliability assessments. Thus, the key argument in favor of the IH Scale over the CIHS is its brevity.

² Leary et al. (2017) designate their measure as the IH Scale presumably to distinguish it from the IHS of McElroy et al. (2014).

I reconsider my opinions when presented with new evidence.					
In the face of conflicting evidence, I am open to changing my opinions.					

Although the IH Scale is a good measure of intellectual humility in an online environment, it does suffer from one major shortcoming: it represents a self-reported measure of individuals' perspectives on *their own dispositional* intellectual humility. As such, it does not provide a measure of the intellectual humility of others or of the online environment itself.

Intellectual Humility of Others in an Online Environment

Developing an appropriate measure of the intellectual humility of others in an online environment required a return to McElroy et al. (2014). As noted earlier, their items aim to measure the perceptions of intellectual humility in religious leaders. Many of these items lack face validity for any attempt to measure intellectual humility for a group in an online environment. Examples include: "often becomes angry when their ideas are not implemented;" "values winning an argument over maintaining a relationship;" "always has to have the last word in an argument;" and "gets defensive if others do not agree with them." While one might see a way to adapt these items for an online environment, since they imply the presence of specific individuals engaging in various actions, it would be overly difficult to disentangle participants' perspectives on who precisely did them in their group. These items correspond to what McElroy et al. call the Intellectual Arrogance (IA) subscale (2014, 22-23).

Their second subscale, however, contains six items that are facially valid and adaptable for measuring the intellectual humility of a group in an online environment (McElroy et al. 2014, 22-23). Examples of the items on the Intellectual Openness (IO) subscale include: "seeks out alternative viewpoints;" "encourages others to share their viewpoints;" and "enjoys diverse perspectives." Using these to describe a group experience simply requires changing the verb conjugation from singular to plural, adding the word "people" or "the platform," and using the past tense. The following demonstrates such an adaptation:

[QX] Please rate the following statements about your experience with the online news comment platform that you used.

	Never	Rarely	Occasionally	Often	Almost Always
People sought out alternative viewpoints.					
People encouraged others to share their viewpoints.					
People expressed diverse perspectives.					
People were open to competing ideas.					
The platform was good at managing controversial topics.					
People considered the limitations of their perspectives.					
People were open to others' ideas.					

The IO subscale of the IHS has the same advantages of brevity and validity in measuring group intellectual humility of an online environment that the IH Scale has for measuring individuals' self-

perceptions of their own dispositional intellectual humility. Thus, it is an appropriate measure to include on any post-test survey after engaging participants in an online activity.

There is an alternative, related measure that some have used in a face-to-face environment that would also be usable in an online environment. In studies of citizen deliberation, specifically the Citizens’ Initiative Review, participants have evaluated their role in the discussions (see, e.g., Gastil et al. 2017). These items measure the reciprocity that citizens perceive that others have granted them (Morrell 2016). While not developed as measures of intellectual humility, several of these items have the potential to do so. These include:

[QX] Would you say you had sufficient opportunities to express your views in the online news comment platform?

- <1> Definitely No
- <2> Probably No
- <3> Unsure
- <4> Probably Yes
- <5> Definitely Yes

[QX] For each question, please select the response that best captures your experience with the online news comment platform.

	Never	Rarely	Occasionally	Often	Almost Always
How often did you feel pressure to agree with something that you weren’t sure about?					
How often did you feel that the other participants treated you with respect?					
When other participants expressed views different from your own, how often did you consider carefully what they had to say?					

Further testing is necessary to determine whether these items can help measure IH, but given that researchers developed them specifically for a deliberative environment, they may provide an alternative route for such a measure if the adaptation of McElroy et al. (2014) is not fruitful.

Conclusion

There are a handful of specific measures of intellectual humility, and several of these are not appropriate for use in an online environment due to their domain-specificity or length. The most appropriate measure of individuals’ perceptions of their own predispositions to trait IH in such an environment—either as a pre-test or part of a larger survey—is Leary et al.’s (2017) IH Scale, which needs little adaptation. Measuring participants’ perceptions of the intellectual humility of others engaged in the online environment, however, requires more adaptation. The likely best measure for this is a modified version of McElroy et al.’s (2014) Intellectual Openness subscale of their IHS. Both the IH Scale and IO subscale are brief and have demonstrated validity. Items used in studies of the Citizens’

Initiative Review provide a possible alternative to the IO subscale. Field testing of these measures in an online environment, especially the IO subscale and CIR measures, will provide evidence of their utility and validity.

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Appendix I: Krumrei-Mancuso and Rouse (2016) Hypotheses and Results

- Hypothesis 1: “the IH scale would correlate with measures of intellectual and general humility, thereby supporting the scale’s convergent validity (Study 3)” (211).
 - Study 3: “Consistent with Hypothesis 1 the CIHS demonstrated moderate correlations with the IHS ($r=.52$, $p < .001$, for Intellectual Openness; $r=-.53$, $p < .001$, for Intellectual Arrogance), and small to moderate correlations with measures of humility ($r=.23$, $p < .001$, with the HEXACO Humility subscale; $r=.21$, $p < .001$, with the Humility subscale of the IPIP Values in Action Scales; $r=.42$, $p < .001$, with Landrum’s Self-Correction Humility subscale; and $r=.30$, $p < .001$, for Landrum’s Accurate Self- Perspective Humility subscale)” (217).
- Hypothesis 2: “the IH scale would correlate with measures of open-mindedness, tolerance, and openness to experience (Studies 3 and 4), thereby supporting the scale’s construct validity” (211).
 - Study 3: “Consistent with Hypothesis 2, the CIHS was moderately correlated with open-minded thinking ($r=.56$, $p < .001$)” (217).
 - Study 4: “Consistent with Hypothesis 2, the CIHS was positively correlated with open-minded thinking ($r=.57$, $p < .001$) and tolerance toward other people and ideas ($r=.28$, $p < .001$)” (218).
- Hypothesis 3: “the IH scale would demonstrate no to small correlations with social desirability, low self-regard, social conformity, and confidence, thereby supporting the scale’s discriminant validity (Studies 3 and 4)” (211).
 - Study 3: “Consistent with Hypothesis 3, the CIHS was not redundant with social desirability; nevertheless, there was a small, positive correlation between the two ($r=.22$, $p < .001$), which was driven by the first and second factors of the CIHS (independence of intellect and ego and openness to revising one’s viewpoints). Also consistent with Hypothesis 3, the CIHS was unrelated to Landrum’s Low Self-Regard subscale ($r=-.04$, $p=.32$), and even showed a small, positive correlation with Landrum’s Self-Confidence subscale ($r=.13$, $p < .01$)” (217).
 - Study 4: “Consistent with Hypothesis 3, the scale displayed only a small correlation with social desirability ($r=.15$, $p < .05$) and was unrelated to measures of conformity ($r=-.14$, $p=.07$) and social confidence ($r=.04$, $p=.60$)” (218).
- Hypothesis 4: “[the IH] scale would positively correlate with [McElroy et al.’s (2014) Intellectual Openness subscale and negatively correlate with their Intellectual Arrogance subscale (see Hypothesis 1), but that the broader content coverage of the new IH scale would offer greater predictive validity compared to the existing measure of IH in predicting open-mindedness, a salient outcome of IH that is also central to the construct of intellectual openness measured by the IHS (Study 3)” (211).
 - Study 3: using hierarchical regressions; “Consistent with Hypothesis 4, Panel A displays that the CIHS (entered in Step 3) predicted variance in open-minded thinking beyond the variability attributable to age and social desirability (entered in Step 1), and a self-report assessment of an existing informant report IH scale (IHS; entered in Step 2). The CIHS accounted for 12.4% of the variance in open-minded thinking beyond age, social desirability, and the HIS” (217).
- Hypothesis 5: “the IH scale would predict open-mindedness” better than the Honesty-Humility subscale of the HEXACO Personality Inventory (using the two humility scales to increase specificity) and the Modesty-Humility subscale of the Values in Action Strengths Inventory (211).
 - Study 3: using hierarchical regressions; “Consistent with Hypothesis 5, Panel B displays that the CIHS (entered in Step 3) predicted variance in open-minded thinking beyond the variability attributable to age and social desirability (entered in Step 1), and three measures of humility (entered in Step 2). The CIHS accounted for 26.2% of the variance in open-minded thinking beyond age, social desirability, and general humility” (217).

- Hypothesis 6: low scores on the Honesty-Humility subscale of the HEXACO Personality Inventory (using the two humility scales to increase specificity) and the Modesty-Humility subscale of the Values in Action Strengths Inventory “would predict narcissism and psychological entitlement more so than low scores on the IH scale (Study 3)” (211).
 - Study 3: using hierarchical regressions; “Consistent with Hypothesis 6, Panel C displays that measures of humility (entered in Step 3) predicted variance in narcissism and psychological entitlement beyond the variability attributable [218] to age and social desirability (entered in Step 1), and the CIHS (entered in Step 2). The measures of humility accounted for 34.6% of the variance in narcissism and 30.8% of the variability in psychological entitlement beyond age, social desirability, and IH” (217-218).
- Hypothesis 7: the “IH scale would predict the personality trait of openness to experience, even beyond the personality trait of individualism, which assesses the construct of unpretentiousness (Study 4)” (211).
 - Study 4: “Finally, consistent with Hypothesis 7, the CIHS was positively correlated with openness to experience ($r=.40$, $p < .001$)” (218).
 - Study 4: using hierarchical regressions; “Consistent with Hypothesis 7, the CIHS accounted for 15.8% of openness to experience after accounting for social desirability and individualism” (219).
- Hypothesis 8: the “IH scale would predict key outcomes of IH, specifically open-mindedness and tolerance, above the tendency to desire understanding and engage in critical thinking (Study 4)” (211).
 - Study 4: using hierarchical regressions; “Consistent with Hypothesis 8, the CIHS accounted for 28.6% of open-minded thinking and 5.1% of tolerance, after accounting for social desirability and comprehension” (219).
- Hypothesis 9: “test-retest analyses would reveal moderately stable IH scores with correlations around .70 or higher (Study 5)” (211).
 - Study 5: “The test-retest correlation for the full scale was .75 after 1 month and .70 after 3 months. One-month test-retest for [220] Factor 1 was .74, Factor 2 was .59, Factor 3 was .60, and Factor 4 was .46. Three-month test-retest for Factor 1 was .59, Factor 2 was .50, Factor 3 was .76, and Factor 4 was .69. All test-retest coefficients were significant at $p < .001$ ” (219-220).
 - Discussion: “Scores for the CIHS were stable over 1- and 3-month periods, which represent relatively long follow-up times for test-retest reliability (Weiner & Greene, 2008). The full scale met Weiner and Greene’s (2008) recommended correlation coefficient of .75 as a general standard for short-term test-retest reliability (ranging from 1 day to a few weeks). The longer term test-retest fell below this level, at .70. Test-retest reliability for the sub- scales fell below this standard for both test-retest periods, sup- porting the use of the full scale CIHS score” (220).

Note on Control for Study 3: “The CIHS displayed a small positive correlation with age ($r=.09$, $p < .05$). Therefore, age was controlled in Study 3 analyses. The full scale was not correlated with any other demographic factors, including gender, race, education, or religious affiliation” (217).