Study 5 – Additional Analyses

Table 1 here

Factor analysis. Common-method bias is a possible concern due to all variables being measured via self-report. Some scholars argue mono-method bias is problematic (Podsakoff et al., 2003); others argue its effects are exaggerated (e.g., Conway & Lance, 2010). To rule out mono-method bias, we compared the fit of a 3-factor model made up of IRI, CI, and intergroup effectiveness scales, and a 2-factor (IRI and CI) model, against two, single-factor saturated models, see Table 7. The 3-factor (IRI, CI, IE) model fit the data adequately, while the saturated single-factor model with all 27 IRI, CI, and IE items (IRI, CI, and IE) produced a poor fit. The 3-factor model is a significantly better fit ($\Delta\chi^2(3)=1815$, $p<.001$, $\Delta AIC=1797$). The 2-factor model IRI and CI as separate factors fit the data well, but the single-factor identity model is a poor fit. The 2-factor model is a significantly better fit ($\Delta\chi^2(1)=953$, $p<.001$, $\Delta AIC=951.30$).

Taken together these analyses, the CFAs provide compelling evidence that mono-method bias is not a plausible explanation for the obtained results. The CFA findings also confirm the construct validity of the IRI measure, extending the findings of S2 and S3.

Table 1

Study 5: CFA summary for single-, two-, and three-factor models ($n = 403$).

Model	χ^2	df	CFI	IFI	TLI	SRMR
1. Single-factor (saturated) model	2859.52*	230	.66	.66	.63	.10
2. Single-factor (identity) model	1461.74*	90	.72	.72	.67	.10
3. Two-factor (IRI, CI) model	508.47*	89	.92	.92	.90	.04
4. Three-factor (IRI, CI, IE) model	1044.40*	227	.90	.90	.88	.04

Note: The single-factor model (1) consisted of a saturated model where IRI, CI, and IE all loaded onto a single latent factor. The single-factor model (2) consisted of the CI and IRI items loading on a single 'identity' factor. The two-factor model (3) consisted of CI items loading on CI, and the IRI items loading on IRI. The three-factor model consisted of the CI items loading on CI, and the IRI items loading on IRI, and IE items loading on IE. Comparing models 1 and 4: $\Delta\chi^2(3)=1815$, $p<.001$, ΔAIC=1797. Comparing models 2 and 3: $\Delta\chi^2(1)=953$, $p<.001$, ΔAIC=951.30.

* $p < .001$

All Studies – Multi-Sample CFA for IRI

At the suggestion of one of the reviewers, we conducted a measurement invariance testing using 'semTools' in R. Using the most conservative invariance test assessing structural invariance (which is a mean difference test + metric invariance + scalar invariance + residual invariance), we see evidence of strong or partial invariance across the 5 diverse samples. That is, the data support the conclusion that across our five samples, participants held a reasonably equivalent psychological representation of the underlying IRI construct. we only presented that along with the invariance of the model form (aka configural invariance). Configural and metric invariance can be assessed by comparing the unconstrained (configural) against the constrained (metric) models, see Table 2. For sake of completion, we also found partial support for scalar and structural invariance, but not residual invariance. Residual invariance is the most difficult to assess as residual error may be attributed measurement error (rather than group variance) and is therefore often omitted from invariance tests (see Putnick & Bornstein, 2016).

Table 2

All Studies: Fit measures for multi-sample CFA for IRI

Fit measure	CFI	RMSEA	ΔCFI	ΔRMSEA	AIC	BIC
1. Configural fit	.96	.18	NA	NA	24424	24829
2. Metric fit	.95	.16	.01	.03	24470	24789