APPENDIX

Black & White Simulations

Here, I use simulations to show the *practical* trouble for indices. Each has 1,000 respondents giving five-point scale responses to items averaged as 0–100 scores, set in Microsoft Excel. Response modes repeat independently at "Time 2" to test stability. Models have two respondent types: "ideologues" have real views clustered on a side; random respondents choose equally across options. I iteratively test parameters for varying ideologue proportions (5, 10, 20, 40, 60, 80, 100 percent), item counts (1, 5, 10, 20, or 30), and individual item variance (low, medium, high).

Variance in item response could be due to respondents, measures, or both. How do ideologues respond? More variance means more ideologues to hit Ansolabehere, Rodden, and Snyder (ARS) benchmarks. Readers can judge the plausibility of each variance structure. Low-variance ideologues choose equally between two outlying points on five-point scales, centered at 18 and 83. Medium-variance ideologues choose equally across three points from middle to pole, centered at 25 and 75, neither middling nor extreme. High-variance "ideologues" range uniformly over four or five points, centered at 37 and 63. They show enormous heterodoxy, loyal to their ideological side only half the time and taking opposing positions every fourth issue. They differ from randomness only by excluding the polar opposing position. For this model, we have to believe "ideologues" often struggle to find their side on face-valid questions. The high-variance model faithfully captures that incoherence.

Black and white results

Table 9A.1 presents stability correlations under varying parameters. ARS's table 1 economic index stability results appear at the bottom for reference, with similar simulation results in bold. Do large-index correlations indicate a lack of non-attitudes, as ARS claim? Not at all. Only in high-variance models—with "ideologues" almost random—are many ideologues needed to produce large correlations. Let's begin with low-variance models. Single-item stability reaches ARS's benchmarks when 40 percent of the public has real attitudes; the rest are random. The five- and ten-item results need only 20 percent with real attitudes to reach ARS levels. Results are most dismal for 20- and 30-item indices: stability equals ARS levels when just 10 percent of the public has real attitudes. This is dramatically darker than Converse's portrait, and yet it produces results ARS seem inclined to claim as "strong issues."

Table 9A.1 Simulated Pearson's r correlations for issue stability over time

Ideologue means…	Percentage ideologue	30-item index *r*	20-item index *r*	10-item index *r*	5-item index *r*	1 item *r*
Low variance	0	0	0	0	0	0
Rand. = uniform	5	0.60	0.54	0.39	0.21	0.01
Across 2 of 5 pts	10	**0.79**	**0.69**	0.57	0.41	0.08
Centers = 18, 83	20	0.89	0.84	**0.72**	**0.59**	0.21
(Else: rand. uniform,	40	0.96	0.93	0.87	0.78	**0.40**
5 of 5 pts)	60	0.98	0.96	0.93	0.88	0.65
	80	0.99	0.99	0.97	0.93	0.76
	100	1.00	0.99	0.99	0.98	0.90

Ideologue means…	Percentage ideologue	30-item index *r*	20-item index *r*	10-item index *r*	5-item index *r*	1 item *r*
Medium variance	0	0	0	0	0	0
Rand. = uniform	5	0.41	0.37	0.27	0.07	0.04
Across 3 of 5 pts	10	0.62	0.52	0.37	0.22	0.05
Centers = 25, 75	20	**0.79**	**0.70**	0.52	0.34	0.13
(Else: rand. uniform,	40	0.89	0.85	**0.74**	**0.59**	0.19
5 of 5 pts)	60	0.94	0.91	0.83	0.72	0.31
	80	0.96	0.94	0.89	0.82	**0.44**
	100	0.98	0.97	0.94	0.88	0.59
High variance	0	0	0	0	0	0
Rand. = uniform	5	0.15	0.10	0.09	0.04	0
Across 4 of 5 pts	10	0.30	0.19	0.11	0.05	0.01
Centers = 38, 63	20	0.47	0.33	0.19	0.11	0.02
(Else: rand. uniform,	40	0.62	0.53	0.37	0.22	0.04
5 of 5 pts)	60	**0.73**	**0.65**	0.49	0.34	0.04
	80	**0.81**	**0.76**	0.57	0.40	0.11
	100	0.86	0.80	**0.66**	**0.51**	0.15
Ansolabehere et al.	Disputed		1972–1976:	1970–1972:	1956–1960:	All:
(2008)			**0.65**	**0.67**	**0.62**	**0.41 to 0.43**
Economic index			1990–1992:			
stability			**0.76**			

Note: Pearson's *r* correlations for simulation results. Simulation results similar to ARS are in bold.

Medium-variance models with more conservative assumptions are similar. Here, it takes 80 percent ideologues to best ARS's single-item tests—a point in their favor (but see the hybrid model below). Even so, the models show large-item results like ARS's with ideologues at 20–40 percent and non-attitudes at 60–80 percent. The high-variance models need 60–100 percent ideologues to meet ARS stability benchmarks for each index size. These models support ARS's claims for real-attitude majorities, but they have a range so broad as to make "ideologue" answers improbably error-filled or substantively meaningless.

ARS's split-half constraint tests carry the same weakness, creating the illusion of constraint. Table 9.A1 works as a test of constraint as well, since the data-generation process is equivalent. For example, the ten-item index stability correlation is like comparing halves of a 20-item index. Constraint grows strong even when large majorities are random. ARS find correlations near 0.70 for 20-item issue sets. The equivalent ten-item simulation has similarly sized correlations when 20–40 percent are ideologues in low- and medium-variance models. Only high-variance "ideologues" need 80 percent to reach that level. The same holds for ARS's tests with 30+ items, with correlations around 0.80. The 20-item simulations reach that benchmark with 20–40 percent ideologues. High-variance requires 100 percent.

In sum, simulations and survey results support the thought experiments, providing a clearer view of how each parameter—ideologues, items, and variance—affects issue estimates. The tests refute ARS's claim that large estimates show a public full of real attitudes. ARS could curtail their claims to fit results for high-variance "ideologues," but that would strip "ideologue" of meaning, especially when an informed, ideological few have highly stable, coherent, and potent issue views.