

Comparisons of Liberal-Conservative Items in the ANES 1989 Pilot Study:
Report to the Pilot Study Committee and Board of Overseers.
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My central focus in this round of the pilot study evaluations of liberal-conservative items is on comparisons of telephone vs. in-person administration of the seven point scale, and on the effects of labelling the end-points of the scale "very" rather than the traditional "extremely." These questions are particularly important since the 1988 Senate study employed both of these variations for the first time. The good news is that neither of these manipulations appear to make a difference in the measurement of the underlying construct.

The traditional (since 1972) means of obtaining respondent's self-rating of the seven point liberal-conservative scale has been to show the respondent a graphic representation of a one to seven equal interval scale with each point labelled. These labels are 1- extremely liberal, 2- liberal, 3- slightly liberal, 4- moderate/middle of the road, 5- slightly conservative, 6- conservative, and 7- extremely conservative. It has long been observed that the "extremely" points generally attract very few respondents. It has also generally been hypothesized that this is at least in part a function of the inflammatory labelling of the endpoints (e.g., Aldrich, et al, 1982).

The visual presentation of the scale has also been considered quite important in obtaining valid responses. The commonsensical argument is that it is unwise to assume that the typical respondent can imagine an equal interval scale in the absence of some kind of graphic depiction. This argument has generally lost ground as the economics of survey research have pressed in the direction of telephone interviewing.

Both the 1988 Senate study and the 1989 pilot study obtained liberal-conservative seven point scale placement in a telephone interview mode. The question attempts to help the respondent imagine an equal interval scale by instructing:

"Think of a ruler for measuring political views that people might hold from liberal to conservative. One means [very/extremely] liberal political views, and seven means [very/extremely] conservative political views. Just like a regular ruler it has points in between, at 2, 3, 4, 5, or 6. Where would you place yourself on this ruler, remembering that 1 is [very/extremely] liberal, and 7 is [very/extremely] conservative, or haven't you thought much about that?"

In the Senate study the end points of the ruler were always labelled "very." In the '89 pilot study an experiment was conducted manipulating the "very" and "extremely" labels at the endpoints in a split-half design. It is worth keeping in mind that in both telephone administrations (Senate and Pilot Studies) the intermediate points on what will be termed here the "imaginary ruler" (or just plain "ruler" for short), were not explicitly labelled. In contrast with the visual presentation of the scale, people had to figure out for themselves that "4" represented the neutral, or moderate, point. One minor drawback of this design, however, is that all pilot study respondents had been presented with a large battery of visual scales in the pre-election wave of the 1988 ANES survey, so that it could be argued that some learning of the midpoint and remembering could have occurred. This is not a question that can be dealt with here.

Comparison of the same respondents' locations on the seven point scale in in-person (visual presentation) and telephone (imaginary ruler) modes, holding the labelling of the endpoints constant, can be made by considering the subset of respondents who were asked the ruler question with endpoints labelled "extremely" in each wave of the pilot study. Since the design was split into quarters to accommodate other experiments, this yields a total valid n of 152 respondents who were asked the "extremely" worded version of the ruler. In wave 2 of the pilot the valid n in the "extremely" treatment group is 126. In the following discussion the 1988 visual presentation will be referred to as the t1 administration, 1989 pilot wave 1 as t2, and pilot wave 2 as t3.

Table 1 presents frequencies and summary statistics for the visual and imaginary versions of the seven point liberal conservative scale with endpoints labelled "extremely." It does not appear that the telephone administration of the imaginary ruler depresses the incidence of self-placement to any meaningful extent. Nor does the lack of an explicit label at point 4 reduce respondents' tendency to bunch at the mid-point. There is no significant difference in the distribution of the scale by mode of presentation (visual vs. imaginary) (chi squared= 9.45, p=.15).

Table 2 presents the same information for the imaginary ruler with the endpoints labelled "very" asked in each wave of the 1989 pilot study, but not in the 1988 traditional election study. There is no consistent evidence supporting the hypothesis that the use of the "extremely" label depresses the incidence of placement at the endpoints. In wave 1 a few more of the respondents given the "extremely" wording placed themselves at the (conservative) endpoint. In wave 2 the pattern is reversed, but in neither case is the tendency pronounced enough to affect the comparability of the scales. There is no difference in the distribution of the of the rulers by labelling of the endpoints (very vs. extremely) (chi squared= 1.088, p=.98! for wave one of the pilot, and 4.848, p=.56 for wave two).

Table 3 provides another a formal test for the effects of differences in the labelling of the endpoints of the rulers in the two waves of the pilot study. All of these results suggest that the "very" and "extremely" labelling of the endpoints can be used interchangeably. They also suggest that no damage is done by combining the samples asked the two differently labelled questions.

As social scientists we have become quite aware that apparently unchanging marginal distributions over time may hide a good deal of individual level turnover. Tables 4a and 4b suggest that this is indeed the case. At first glance Table 4a, which compares the visual presentation of the scale in the 1988 study with the imaginary ruler in wave 1 of the pilot study, suggests a high level of individual instability. Only 42% of respondents who answered both questions placed themselves at exactly the same point on the visual scale and the imaginary ruler. And, only half of respondents who placed themselves at the "moderate/middle-of-the-road" point on the visual scale also placed themselves at point 4 on the imaginary ruler. At the same time, however, only 8% of respondents who answered both questions were entirely inconsistent in their ideological identification, i.e., placed themselves on the liberal side of the scale at one point and on the conservative side when asked again, or vice versa. A good deal of the overall correlation of .56 is the result of minimal shifts in respondents' self-placement.

Essentially the same pattern is apparent in Table 4b. Here, however, we focus on

respondents who were asked the imaginary scale question in each wave of the 1989 pilot study. The length of time intervening between the two administrations is also substantially less, and the *n* is reduced due to panel attrition. In this instance the Pearson's *r* (.76) might, at first glance, suggest greater stability. Still less than half (45%) of the respondents who answered the question in both waves of the pilot survey placed themselves at exactly the same point on the imaginary rulers. Persons at point 4 are no more stable than in Table 4a, but only 4% of the respondents who answered the question in both waves of the pilot were completely inconsistent in their ideological identification.

These patterns naturally raise the question of whether we are dealing with response instability, or measurement error. Since three observations are available, it is possible to use either the Heise (1969), or the Wiley and Wiley (1970), method for separating stability and reliability in panel data. Both are presented in Table 5. Both of these methods suggest that the underlying attitude is quite stable. The reliabilities are generally better than we have come to expect of single indicators.

One alternative to the causal chain approach is to consider Steiger's (1980) test of significance for differences between dependent *r*s. This is a tough test because the time lapse between the presentation of the visual scale and the first presentation of the imaginary ruler was ten months, while the time lapse between repeated administrations of the imaginary ruler was two months. Still the correlation between repeated presentations of the imaginary ruler exceeds that of the visual scale and the imaginary ruler by only .08. The Steiger calculation yields a non-significant *t* value of 1.864 (2-tailed) with 135 degrees of freedom.

In sum, the theoretical construct that we are trying to measure with self-location on a liberal/conservative continuum is quite impervious to the variations we have tried so far. The "extremely" label does not depress respondents' propensity to place themselves at the endpoints of a seven point scale. The "imaginary ruler" appears to evoke a valid representation of a seven point scale in the minds of most respondents when it is described over the telephone. It does not result in a significantly higher rate of non-response. Even though the ruler explicitly labels only the endpoints, it yields a distribution of self-placement which is not significantly different from that obtained with the visual presentation.

Of particular interest here is the fact that respondents appear capable of finding the implicit neutral point on the seven point ruler, even when it is not labelled "moderate." Because of the possible learning effect of prior visual presentation, this observation could probably bear further testing, and will need to be evaluated in the context of findings from the other experiments with presentations of seven-point scales in the pilot study. However, this finding is consistent with one reported by Krosnick and Berent (1989) from a telephone experiment in which respondents in the "fully labelled" and "partially labelled" conditions had not been previously exposed to visual presentations.

Drawing on findings from previous pilot studies (Feldman, 1984 and Knight, 1987) it appears that the chief differences affecting the measurement of liberal/conservative orientations result from the decision to filter for no opinion, and to probe moderates for ideological leanings, (or to explicitly provide a moderate, and/or "no opinion" option in the question (see Presser and Schuman, 1980)). The addition of a follow-up

question asking neutral, or moderate, respondents whether they think of themselves as "closer" to liberals or conservatives yields a bi-modal distribution, with probed (or "leaning") identifiers most appropriately assigned to points 3 and 5. This naturally increases the variance of the scale, and in 1987 and 1989 moved the mean a touch in the direction of predominant sentiment-- conservative.

Reassigning respondents who were probed after having declined to locate themselves on the ruler, has a salutary effect on the number of respondents who can be included in the analysis. However, the use of respondents who initially admit they "have'nt thought much about this" needs to be considered carefully in the context of the individual analyst's overall model. For example, in 1989 reassigning initially "thoughtless," but "closer to," respondents to points 3 and 5 reduces the amount of variance in location on one ruler that can be explained by the other by more than ten percent. Analysis of the 1984 ANES (Knight and Lewis, 1986), and the 1987 and 1989 pilot studies, indicate that these cautions apply to the "branching" version of the liberal-conservative question as well.

Finally, I cannot help but put a word in for my "favorite" from the 1987 pilot. The relative liberal-conservative feeling thermometer difference (usually calculated as rating of conservatives minus rating of liberals) was obtained in both 1988 and 1989. In any fair "race" of the individual indicators against each other (in both the 1987 and 1989), the relative feeling thermometer difference "wins," but only by a slight margin. In essence, this means that the liberal-conservative feeling thermometer difference can be used interchangeably with the seven-point liberal-conservative scale. This is particularly useful information in the context of comparability over time, since the feeling thermometer difference has been included in the Presidential election surveys since 1964, and the seven-point scale was not employed until 1972.

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Knight, Pilot Report Jan. 1990.

Table 1. Comparison of Visual Presentation and Imaginary Ruler Versions of Seven Point Liberal-Conservative Scales with Endpoints Labelled "Extremely."

In-Person Interview: Visual Presentation, 1988 Pre-election.			Telephone Interview: Imaginary Ruler, Pilot wave 1.			Telephone Interview: Imaginary Ruler, Pilot wave 2.		
	Freq.	Percent		Freq.	Percent		Freq.	Percent
1	1	0.90	1	3	2.88	1	2	2.22
2	13	11.71	2	5	4.81	2	5	5.56
3	12	10.81	3	12	11.54	3	14	15.56
4	32	28.83	4	29	27.88	4	27	30.00
5	24	21.62	5	27	25.96	5	27	30.00
6	25	22.52	6	17	16.35	6	9	10.00
7	4	3.60	7	11	10.58	7	6	6.67
Total	111	100.00	Total	104	100.00	Total	90	100.00
Mean		Std. Dev.	Mean		Std. Dev.	Mean		Std. Dev.
	4.405405	1.39726		4.605769	1.444227		4.366667	1.32775

27% of respondents did not locate themselves on the scale. (41/152)

32% of respondents did not locate themselves of the scale. (48/152)

29% of respondents did not locate themselves on the scale. (36/126)
Reduced valid total due to panel attrition.

Source: ANES 1989 Pilot Study, 1988 ANES data merged by NES staff.

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Table 2. Distribution on Imaginary Ruler with Endpoints Labelled "Very."

Pilot wave 1.			Pilot wave 2.		
	Freq.	Percent		Freq.	Percent
1	3	2.88	1	4	4.76
2	5	4.81	2	8	9.52
3	14	13.46	3	17	20.24
4	30	28.85	4	18	21.43
5	27	25.96	5	21	25.00
6	18	17.31	6	7	8.33
7	7	6.73	7	9	10.71
Total	104	100.00	Total	84	100.00
Mean	Std. Dev.		Mean	Std. Dev.	
4.490385	1.386448		4.202381	1.596531	

35% of respondents did not locate themselves on the scale. (56/160)

32% of respondents did not locate themselves on the scale. (40/124)

Source: ANES 1989 Pilot Study, 1988 ANES data merged by NES staff.

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Table 3. Means and Standard Deviations of Imaginary Rulers by Form of Question ("very" vs. "extremely" wording).

1989 Pilot Wave 1.

Form of Question:		Liberal/Conservative Ruler 1:		
		Mean	Std. Dev.	Freq.
very	1	4.4903846	1.3864475	104
extremely	2	4.6057692	1.444227	104
Total		4.5480769	1.4133922	208

Analysis of Variance					
Source	SS	df	MS	F	Prob > F
Between groups	.692307692	1	.692307692	0.35	0.5573
Within groups	412.826923	206	2.00401419		
Total	413.519231	207	1.99767744		

Bartlett's test for equal variances: $\chi^2(1) = 0.1708$ Prob> $\chi^2 = 0.679$

1989 Pilot Wave 2.

Form of Question:		Liberal/Conservative Ruler 2:		
		Mean	Std. Dev.	Freq.
very	1	4.202381	1.5965306	84
extremely	2	4.3666667	1.3277505	90
Total		4.2873563	1.4617121	174

Analysis of Variance					
Source	SS	df	MS	F	Prob > F
Between groups	1.1726601	1	1.1726601	0.55	0.4604
Within groups	368.459524	172	2.14220653		
Total	369.632184	173	2.13660222		

Bartlett's test for equal variances: $\chi^2(1) = 2.8982$ Prob> $\chi^2 = 0.089$

Source: ANES 1989 Pilot Study, 1988 ANES data merged by NES staff.

Knight, Pilot Report Jan. 1990.

Table 4a. Respondents Self-Placement on Imaginary Ruler, Pilot Study Wave 1 by Self-Placement on the Visual Scale in 1988.

Liberal/Conservative (Visual) Scale 1988:

		Extremely	Liberal	Slightly	Moderate	Slightly	Conservative	Extremely		
		1	2	3	4	5	6	7	Total	
Pilot 1989	Ruler 1:	-----+								
(very or	1	1	5	0	0	0	0	0		6
extremely)		33.33	31.25	0.00	0.00	0.00	0.00	0.00		3.26
Liberal		0.54	2.72	0.00	0.00	0.00	0.00	0.00		3.26
-----+										
	2	1	3	4	2	0	0	0		10
		33.33	18.75	18.18	4.00	0.00	0.00	0.00		5.43
		0.54	1.63	2.17	1.09	0.00	0.00	0.00		5.43
-----+										
	3	0	1	9	6	4	2	1		23
		0.00	6.25	40.91	12.00	9.30	4.88	11.11		12.50
		0.00	0.54	4.89	3.26	2.17	1.09	0.54		12.50
-----+										
	4	0	3	6	24	12	4	1		50
		0.00	18.75	27.27	48.00	27.91	9.76	11.11		27.17
		0.00	1.63	3.26	13.04	6.52	2.17	0.54		27.17
-----+										
	5	0	1	2	12	20	13	1		49
		0.00	6.25	9.09	24.00	46.51	31.71	11.11		26.63
		0.00	0.54	1.09	6.52	10.87	7.07	0.54		26.63
-----+										
	6	0	1	1	6	7	15	1		31
		0.00	6.25	4.55	12.00	16.28	36.59	11.11		16.85
		0.00	0.54	0.54	3.26	3.80	8.15	0.54		16.85
-----+										
(very or	7	1	2	0	0	0	7	5		15
extremely)		33.33	12.50	0.00	0.00	0.00	17.07	55.56		8.15
Conservative		0.54	1.09	0.00	0.00	0.00	3.80	2.72		8.15
-----+										
Total		3	16	22	50	43	41	9		184
		100.00	100.00	100.00	100.00	100.00	100.00	100.00		100.00
		1.63	8.70	11.96	27.17	23.37	22.28	4.89		100.00

chi2(36) = 173.8498 Prob>chi2 = 0.000
 Pearson's r = .5562

Source: ANES 1989 Pilot Study, 1988 ANES data merged by NES staff.

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Table 4b. Respondents Self-Placement on Imaginary Ruler, Pilot Study Wave 2, by Self-Placement on Imaginary Ruler, Pilot Study Wave 1.

Liberal/Conservative (Imaginary Ruler) Pilot Wave 1 (Ruler 1):

		(very or extremely) Liberal				(very or extremely) Conservative			Total
Pilot 1989 Ruler 2:		1	2	3	4	5	6	7	
(very or extremely) Liberal	1	2	1	0	1	0	0	0	4
		40.00	10.00	0.00	2.33	0.00	0.00	0.00	2.67
		1.33	0.67	0.00	0.67	0.00	0.00	0.00	2.67
	2	2	5	4	2	0	0	0	13
		40.00	50.00	21.05	4.65	0.00	0.00	0.00	8.67
		1.33	3.33	2.67	1.33	0.00	0.00	0.00	8.67
	3	1	4	8	9	2	2	0	26
		20.00	40.00	42.11	20.93	5.71	6.67	0.00	17.33
		0.67	2.67	5.33	6.00	1.33	1.33	0.00	17.33
	4	0	0	5	20	9	5	0	39
		0.00	0.00	26.32	46.51	25.71	16.67	0.00	26.00
		0.00	0.00	3.33	13.33	6.00	3.33	0.00	26.00
	5	0	0	2	11	18	12	0	43
		0.00	0.00	10.53	25.58	51.43	40.00	0.00	28.67
		0.00	0.00	1.33	7.33	12.00	8.00	0.00	28.67
	6	0	0	0	0	4	8	2	14
		0.00	0.00	0.00	0.00	11.43	26.67	25.00	9.33
		0.00	0.00	0.00	0.00	2.67	5.33	1.33	9.33
(very or extremely) Conservative	7	0	0	0	0	2	3	6	11
		0.00	0.00	0.00	0.00	5.71	10.00	75.00	7.33
		0.00	0.00	0.00	0.00	1.33	2.00	4.00	7.33
Total		5	10	19	43	35	30	8	150
		100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
		3.33	6.67	12.67	28.67	23.33	20.00	5.33	100.00

chi2(36) = 188.2604 Prob>chi2 = 0.000

Pearson's r = .7603

Source: ANES 1989 Pilot Study, 1988 ANES data merged by NES staff.

Knight, Pilot Report Jan. 1990.

Table 5. Reliability and Stability of Seven Point Liberal-Conservative Scales.
Means and Variances Restricted to Only Those Respondents Who Answered in
All Three Waves Regardless of Labelling of Endpoints.

Variable: Lib/Cons Scale	Obs	Mean	Variance
t1 (Sep. 6 - Nov. 7, 1988)	138	4.4493	1.8989
t2 (Jul. 6 - Aug. 1, 1989)	138	4.4058	2.1115
t3 (Sep. 6 - Oct. 6, 1989)	138	4.2464	2.0264

	Correlations	Stability Coefficients:	
		Heise	Wiley & Wiley
t1, t2	.6774	.8807	.9448
t2, t3	.7594	.9873	.9937
t1, t3	.6688	.8696	.9387

Reliability Coefficients (Wiley & Wiley)*

t1	.6685
t2	.7691
t3	.7595

* The Heise method yields a single reliability coefficient of .7691, which should be, and is, equal to the Wiley & Wiley coefficient for t2.

Source: ANES 1989 Pilot Study, 1988 ANES data merged by NES staff.