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April 11, 1988
(GSS Methodological Report #53)

Replication of Two GSS Question Form Effect Experiments:
1974 and 1982

Abstract: Two split-ballot experiments, one on DK filtering and one on agreeing response set, were included in the GSS in 1974 and replicated in 1982. Response effects occurred in each experiment in 1974 and were generally replicated in 1982, but the effects do not interact with time.

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In 1974 the General Social Survey used a split-ballot to test possible form effects on two standard GSS questions:

- (a) **COURTS.** The effect of adding a "don't know" (DK) filter alternative to an attitude question on the treatment of criminals by the courts;
- (b) **FEPOL.** The effect of converting an agree-disagree item on the participation of women in politics into a balanced forced-choice form.

See Tables 1 and 2 for the wording of both experiments.

The 1974 results, reported in Schuman & Presser (1981), showed:

- (a) "Don't know" responses were 22% higher when a DK filter alternative was added to the COURTS question, though the ratio of the substantive responses remained unchanged. Also, the DK response was more highly related to education on the standard form than on the filtered form, though this was not true for most other similar experiments reported in the 1981 book.
- (b) For the FEPOL question, the percentage choosing the alternative represented by the agree response ("Most men are better suited emotionally for politics than are most women") decreased when it was part of a forced-choice question form. Also,

the agree-disagree version showed a stronger relation to education than the balanced forced-choice form, though the interaction was only borderline in significance ($p < .10$) and was even less significant in later SRC telephone survey replications.

In 1982 both experiments were replicated in the GSS. This memo reports the results, including tests of interactions with time.

COURTS

Table 1 presents the tabulation of each form of the COURTS question at each time point. The results can be summarized as follows:

- (1) There are significant changes over time on both forms of the question in the direction of support for greater harshness in the treatment of criminals, with a drop on both forms of the percentage of persons saying DK.
- (2) The original form effect on DK responses is replicated: DK is significantly higher on the filtered than on the standard form in 1982. However, the substantive proportions do not differ significantly by form once DK responses are removed, just as occurred in 1974.
- (3) The form and time effects on response do not interact.

In sum, there is a significant form effect on DK, but both forms show similar movement over time and therefore there is no significant three-way interaction of form effects, time, and DK responses. In addition, as shown in Table 2, the 1974 interaction of DK, education, and response is not replicated in 1982, suggesting that what had appeared as an anomaly in 1974 was indeed due to sampling error.

FEPOL

Table 3 presents the tabulation of each form of the FEPOL question at each time point. The results can be summarized as follows:

- (1) There are significant changes over time on both forms in the direction of fewer respondents claiming that men are better suited emotionally for politics than are women.
- (2) The original form effect is replicated: significantly more respondents choose "men better suited" when it is offered in agree-disagree format than when it is part of a balanced forced-choice question. There was a 14% difference in 1974 and a 13% difference in 1982.
- (3) The question form and time effects on response do not interact.

Thus, there is a reliable question form effect on response, but both forms show much the same change over time and thus there is no significant three-way interaction of form, time, and response. In addition, as shown in Table 4, the relation of FEPOL to education has also increased over time on each form, and the relation continues to be significantly stronger on the agree/disagree form than on the balanced forced-choice form ($X^2=4.60$, $df=1$, $p<.05$). However, there is no significant four-way effect of form, education, time, and response ($X^2=0.14$, $df=1$, n.s.).

Conclusions

Both questions (COURTS and FEPOL) used in these experiments showed substantive changes over the eight year period between the 1974 GSS and the 1982 GSS. Both

questions also showed reliable question form effects in each of the two years. Since the changes over time occurred to about the same degree on each form of each question, one would draw the same conclusion about the direction and approximate amount of substantive change regardless of which form of a question was used, provided that question form was held constant in the comparison. This conclusion is consistent with one other study of response effects over time (Schuman and Presser, 1981:276-278), but it cannot be guaranteed to occur for every type of response effect (ibid:28-30).

Reference

Howard Schuman and Stanley Presser, Questions and Answers in Attitude Surveys: Experiments on Question Form, Wording, and Context, Academic Press, 1981.

Table 1: Courts Question by Form and Year

	STANDARD		FILTERED	
	1974	1982	1974	1982
Too harshly/About Right	15.3	10.1	10.7	9.3
Not harshly enough	77.9	86.2	60.3	76.3
DK	6.8	3.8	29.0	14.4
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
	(745)	(744)	(723)	(752)

Don't Know vs Substantive by Form (1974) $X^2=131.0$, $df=1$, $p<.001$

Don't Know vs Substantive by Form (1982) $X^2=54.0$, $df=1$, $p<.001$

3-way Interaction: Response by Form by Year $X^2=0.89$, $df=1$, ns

Substantive Only by Form (1974) $X^2=0.45$, $df=1$, ns

Substantive Only by Form (1982) $X^2=0.06$, $df=1$, ns

3-way Interaction: Response by Form by Year $X^2=0.39$, $df=1$, ns

Wording: (standard) In general, do you think the courts in this area deal too harshly or not harshly enough with criminals?

(filtered) In general, do you think the courts in this area deal too harshly or not harshly enough with criminals, or don't you think you have enough information about the courts to say?

Table 2: Courts Question by Form and Education

		<u>0-11</u>	<u>12</u>	<u>13+</u>	<u>Gamma</u>	<u>se</u>	<u>p</u>
<u>GSS: 1974</u>							
Standard:	Too harshly/ about right	15.1	14.2	16.9			
	Not harshly enough	81.5	78.0	73.6			
	DK	<u>3.5</u> 100.0 (259)	<u>7.9</u> 100.0 (254)	<u>9.5</u> 100.0 (231)	.07	.07	ns
Filter:	To harshly/ about right	9.6	8.6	13.8			
	Not harshly enough	58.6	69.4	52.9			
	DK	<u>31.7</u> 100.0 (249)	<u>22.0</u> 100.0 (232)	<u>33.3</u> 100.0 (260)	.02	.06	ns

Odds Ratio

Don't know us substantive	.08	.30	.21
Substantive only	.89	.68	.87

3-way interaction (don't know/substantive response x form x education):
linear $X^2=4.72$, $df=1$, $p<.05$

3-way interaction (substantive only response x form x education):
linear $X^2=0.51$, $df=1$, ns

		<u>0-11</u>	<u>12</u>	<u>13+</u>	<u>Gamma</u>	<u>se</u>	<u>p</u>
<u>GSS: 1982</u>							
Standard:	Too harshly/ about right	10.3	5.8	13.9			
	Not harshly enough	85.9	89.6	83.1			
	DK	<u>3.8</u>	<u>4.6</u>	<u>3.0</u>			
		100.0 (234)	100.0 (240)	100.0 (266)	-.13	.08	ns
Filter:	Too harshly/ about right	11.3	5.7	11.6			
	Not harshly enough	71.2	82.5	73.9			
	DK	<u>17.6</u>	<u>11.8</u>	<u>14.5</u>			
		100.0 (222)	100.0 (280)	100.0 (249)	-.05	.07	ns

Odds Ratio

Don't know us substantive	.19	.36	.18
Substantive only	1.33	1.06	.94

3-way interaction (don't know/substantive response x form x education):
linear $X^2=0.001$, $df=1$, ns

3-way interaction (substantive only x form x education):
linear $X^2=0.77$, $df=1$. ns

4-way interaction (don't know/substantive resp. x form x education x year):
linear $X^2=1.78$, $df=1$, ns

4-way interaction (substantive only response x form x education x year):
linear $X^2=1.27$, $df=1$, ns

Table 3: Women in Politics Question by Form and Year

	AGREE-DISAGREE		FORCED CHOICE	
	1974	1982	1974	1982
Men better suited	47.0%	37.7	33.1	24.4
Men not better suited ^a	53.0	62.3	66.9	75.6
	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>	<u>100.0</u>
	(698)	(698)	(719)	(738)

Response by form (1974) $X^2=28.6$, $df=1$, $p<.0001$
 Response by form (1982) $X^2=29.8$, $df=1$, $p<.0001$
 3-way interaction $X^2=0.08$, $df=1$, ns

Wording: (Agree-Disagree) Do you agree or disagree with this statement:
 Most men are better suited emotionally for politics than are most women?

(Forced Choice) Would you say that most men are better suited emotionally for politics than are most women, that men and women are equally suited, or that women are better suited than men in this area?

^aFor the forced choice version, this category includes "women are better suited than men," which is rarely given in either 1974 (4.3%) or 1982 (5.4%).

Table 4: Women in Politics Question by Form and Education

	<u>0-11</u>	<u>12</u>	<u>13+</u>	<u>Gamma</u>	<u>s.e.</u>	<u>p</u>
<u>GSS: 1974</u>						
Agree/Disagree Form: % Agree	56.6 (244)	44.5 (236)	38.7 (217)	.24	.06	.001
Forced Choice Form: % Men	33.3 (243)	37.5 (232)	28.1 (242)	.08	.06	n.s.
Odds ratios	.38	.75	.62			
Three-way Interaction (response x form x education): linear $X^2=3.30$, $df=1$, $p<.10$						
	<u>0-11</u>	<u>12</u>	<u>13+</u>	<u>Gamma</u>	<u>s.e.</u>	<u>p</u>
<u>GSS: 1982</u>						
Agree/Disagree Form: % Agree	54.5 (209)	36.7 (226)	24.3 (259)	.41	.06	.001
Forced Choice Form: % Men	32.7 (211)	22.2 (275)	19.9 (251)	.21	.07	.002
Odds ratio	.40	.49	.77			
Three-way Interaction (response x form x education): linear $X^2=4.59$, $df=1$, $p<.05$						
Four-way Interaction (response x form x education x year): linear $X^2=0.13$, $df=1$, n.s.						