Educated Don't Knows:
An Analysis of the Relationship Between Education and Item Nonresponse.

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Research has consistently shown a positive association between years of schooling and the level of item nonresponse. Item nonresponse is typically two to three times higher among those with less than a high school education (LTHS) compared to those with a college education (CE) (see Table 1), and multivariate analysis of item nonresponse consistently shows education to be one of the strongest predictors (Francis and Busch, 1975; Ferber, 1966). This difference is generally seen as resulting from the greater background knowledge, media consumption, political/civic participation, and public affairs interest of the better educated (Hyman, Wright, and Reed, 1975; Campbell et al., 1960). This paper examines the relationship between education and item nonresponse, concentrating on conditions under which the differential widens, declines, and even reverses.

Initially, the item nonresponse education differential tends to increase with the difficulty of the attitude item. Difficulty is an umbrella word used to describe several distinct but frequently closely related attributes. Difficult questions are those that are (1) remote from everyday personal concerns, (2) less salient and important, and (3) more complex, or that demand more specific knowledge. Items about self-evaluations, personal predispositions, and other intimate traits and feelings, usually have negligible item nonresponse and therefore no educational differentials. Such items include evaluations of satisfaction with home and family, ratings of happiness, and class identification. Items about public issues that are germane and salient to most people and strongly emphasized by the media tend to

TABLE 1

EDUCATIONAL DIFFERENTIALS ON ITEM NONRESPONSE LEVELS

Source	# of Items	Ratio % Nonresponse LTHS / % Nonresponse CE	% Difference Nonresponse LTHS - % Nonresponse CE
Sudman and Bradburn, 1974, p. 99..........	116	2.13	9.8%
Converse, 1976-77, pp. 515-516			
Gallup........	NA	2.14	8.0%
Harris.........	NA	2.75	14.0%
General Social Survey (GSS).	78	2.76	3.5%

NOTE: NA = not available.

have small to moderate differences, as do items dealing with basic moral/religious issues--questions that inquire about standard beliefs and values and not detailed applications about specific incidents (see Table 2). Items dealing with more remote political concerns affecting day-to-day life less directly, items less emphasized in the news, or items that are more complex, typically have moderate to large differentials. Since unfortunately we have no independent quantitative measures of any elements of difficulty, we are forced to use subjective evaluations of which topical groups of questions would show greater difficulty.[1] In general, we find that Table 2 supports our hypothesis. Items with low differentials deal either with basic and general values (religion, morality, sex) or with public issues of high importance/exposure (capital punishment, race relations in the sixties, abortions in the seventies). Those items with high differentials include foreign affairs and less prominent topics such as civil liberties. This difference is also seen with the confidence in leaders questions. The three institutions with the smallest differentials (organized religion, TV, and medicine) are institutions with which people interact on a personal and continuing basis (going to church, watching TV, seeing doctors). The three institutions with the greatest educational differential (the executive branch of the federal government, Congress, and the Supreme Court) are political institutions with which the average citizen has little personal contact.

Recent research by Schuman and Presser (1980) and Bishop et al. (1980) indicates that when the questions used are totally obscure or fictitious the differential does not widen, but reverses, with the better educated giving more item nonresponse than the less educated (Table 3). On these items, the true nonresponse level should be 100 percent and the educational differential, therefore, zero. Some respondents do answer these questions by either misidentifying them with real references, imputing meaning to the questions, or giving a response to hide their ignorance about what they perceive to be a real, knowable issue. The less educated, either because of greater issue confusion, more willingness to impute an answer, or more pressure to cover up perceived ignorance, are less likely to give an appropriate nonresponse than the better educated.

This reversed differential disappears when filtered versions of the obscure/fictitious questions are used.[2] The ratios and differences for the filtered versions are respectively: Monetary Control Act, 1.02/1.6 percent; Agricultural Trade Act, 1.00/0.1 percent; and repeal of Public Affairs Act, .84/-1.2 percent. The disappearance of

TABLE 2

EDUCATIONAL DIFFERENTIALS ON ITEMS NONRESPONSE BY TOPIC

A. Sudman and Bradburn			B. General Social Surveys		
Topic (# of items)	Ratio[a]	Difference[a]	Topic (# of items)	Ratio	Difference
Religion (4).............	1.06	0.6	Morality (17)...........	1.5	0.8
Capital Punishment (5)...	1.49	3.8	Salient (3)[b]...........	1.6	1.9
Race relations (15)......	1.60	6.4	Sex (9)...............	1.8	3.1
Anti-Semitism (7)........	2.08	8.5	Abortion (7)...........	2.0	2.7
Middle East (15).........	2.10	21.4	Civil Liberties (15)...	3.1	3.3
Civil Rights Demonstrations (6).....	2.32	7.0	Foreign (5)............	3.8	8.5
Birth Control (15).......	2.47	12.9	Confidence in Leaders (13).........	4.5	5.1
Vietnam (32).............	2.47	9.4			
Free Speech (14).........	2.62	5.5			

[a] See Table 1 for definition.

[b] Three items believed to have high importance and saliency-busing, capital punishment and gun control.

TABLE 3

EDUCATIONAL DIFFERENTIALS ON ITEM NONRESPONSE FOR OBSCURE AND FICTITIOUS ITEMS

Source	Percent Nonresponse[+]	Ratio[a]	Difference[b]
Schuman & Presser, 1980			
Monetary Control Act	73.6	.86	-11.2%
Agricultural Trade Act	69.2	.76	-18.1%
Bishop et al., 1980			
Repeal Public Affairs Act	66.8	.65	-14.0%
Hyman, Wright, & Reed, 1975[c]			
Identity of Howard C. Backer	93.0	.97	- 2.7%

[a] % Nonresponse among those with less than high school divided by % nonresponse among college educated.

[b] % Nonresponse among those with less than high school minus % nonresponse among college educated.

[c] This is a knowledge question, not an attitude item. It has been included since it shows a similar pattern.

the reverse differential in the filtered version suggests that the lower nonresponse by the less educated was largely the function of a social desirability effect. Less educated respondents apparently felt more pressured to come up with a substantive response than the better educated. When relieved of much of the guilt of ignorance by an explicit nonresponse option, the less educated were no more likely to select a substantive response than the better educated were. Those still giving a substantive response in the filtered version are probably mostly those who believe they understand the question's import, either because of misidentification or imputation.

As Figure 1 illustrates, we find that the traditionally observed relationship between education and item nonresponse actually depends highly on the difficulty (remote, impersonal, complex, etc.) and form of the question (filtered vs. non-filtered).[3] Nonresponse and, therefore, the educational

Figure 1.   Hypothetical Relationship Between Item Non-response
Question Difficulty, and Education
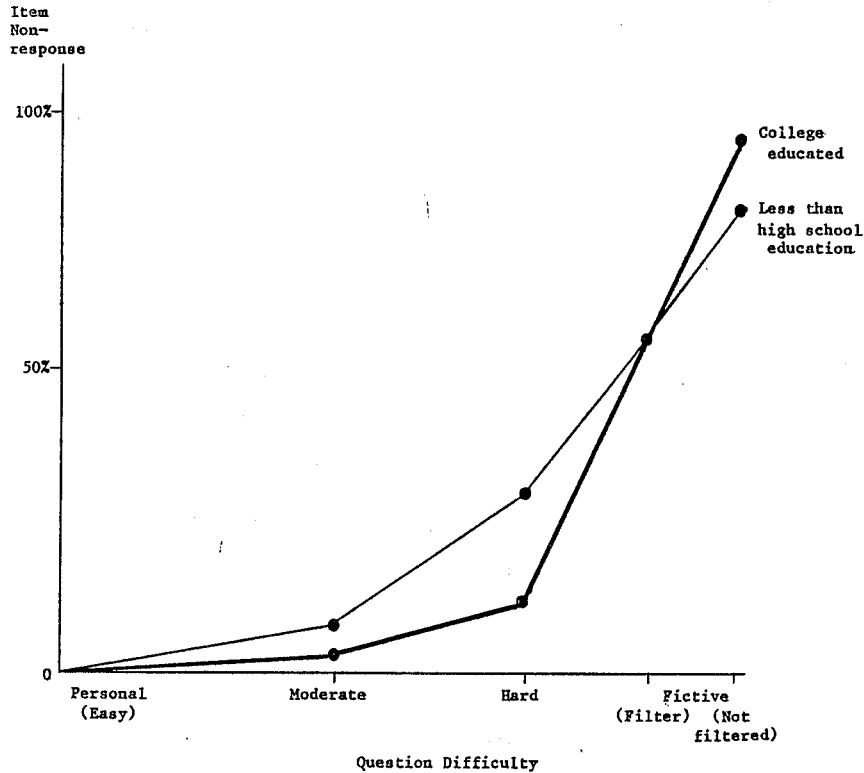
differential, is nil for self-evaluations. As items become
more difficult, the education differential increases until
we reach a point that approaches the totally obscure/ficti-
tious crossover point. An example of a real item that was ex
tremely difficult to answer, yet not about a totally obscure
referant, was Schuman and Presser's item on Portugal: "In
your opinion, is the new Portugese military government trying
to move towards democracy, or is it trying to maintain its
control without concern for democracy in Portugal?" The
question asks for a very specific evaluation about a fairly
minor foreign policy concern. While it shows the standard
positive association (filtered: ratio = 1.17, difference =
14 percent; unfiltered: ratio = 1.30, difference = 16 per-
cent), this is small for difficult items. Apparently the
information advantage of the better educated has begun to
diminish as we push for a detailed evaluation about a new and
remote issue. As we move on to the fictitious filtered
questions, we see the educational differential disappears.
Finally, among the non-filter, fictive questions, we find
that the differential has reversed itself, and that a social
desirability effect leads the less educated to express less
nonresponse than the better educated.

We also found that the educational differential was
probably contingent on the relative distribution of nonatti-
tudes and ambivalent responses within the item nonresponse.
Nonattitudes reflect either no knowledge of, or no affect
towards, the issue, while ambivalence represents positioning
at the mid-point of the issue continuum (Smith, 1981a). We
suspected that the educational differential is primarily a
result of differences in a level of nonattitudes rather than
in the level of ambivalent responses. To test this, we
looked at responses to seven replicated policy questions on
the 1956-58-60 Michigan election panel (Converse, 1964),
comparing the educational differential between those who
said they had no opinion on the issue (nonattitudes) and
those who selected the mid-point on the five-point scales,
"not sure, it depends" (ambivalents). The educational dif-
ferential ratios and differences averaged 3.64/12.2 percent
for the nonattitudes and 0.78/-3.4 percent for the ambiva-
lents. Similar differences were discovered on the seven-
point Likert policy items, asked jointly on the 1980 GSS and
1980 Michigan election studies (Smith, 1982). The better
educated were more likely to select the mid-point on seven-
point scales (which was not labeled as ambivalent) than the
less educated, while, as expected, the less educated pre-
dominated among the nonattitude holders (see also Faulken-
berry and Mason, 1978; Smith, 1981a).

This difference between nonattitudes and ambivalents

suggests that when ambivalence is high and nonattitudes are low, the usual educational differential will either disappear or even reverse. A possible example of this occurs on the harshness of courts question on the GSS. This item dealing with a salient and germane public issue showed both a fairly high level of nonresponse (7.1 percent) and a reverse education differential (ratio = .64; difference = 3.5 percent). We suspect that most nonresponse on this item represents liberal ambivalence. Liberals on most social and political issues (e.g., civil liberties, race relations) are caught between their inclinations on one hand and their concern about high crime on the other. This results in a high degree of ambivalence. This expectation is supported by the fact that nonresponders favored liberal positions on several attitude questions.[4]

In sum, we have shown that the standard association between education and item nonresponse is actually highly conditional, depending on at least three distinct factors: question difficulty (salience, remoteness, complexity), question format (filtered vs. non-filtered), and the distribution of nonattitudes and ambivalents. These findings have several implications for attitude research. The disproportionate loss of the less educated on hard (but not impossible) questions means that typical research on such matters as attitude constraint that excludes those without opinions will systematically underrepresent the less educated. This loss should either be clearly acknowledged and its ramifications indicated or less difficult questions with reduced differentials should be employed (Martin, 1981; Smith, 1981a). Second, the evidence of a social desirability effect predominating among the less educated is one more bit of evidence of the lower reliability and greater bias of attitudes expressed by the less educated. The less educated are usually more susceptible to social desirability pressures (see Bradburn and Sudman, 1979:86-106; DeMaio, 1980) and to certain other response effects as well (Smith, 1981). Third, the ability of the filtered fictive questions to get closer to the correct level of nonresponse (100 percent) and educational differential (0 percent) indicates that, in these circumstances at least, these questions are superior to the standard, non-filtered form. For real questions, either filtered forms or multidimensional batteries on affect, intensity, salience, and knowledge should help to separate the cream from the whey.

NOTES

1. Nonresponse level is sometimes used as a crude indicator of importance and salience. We doubt it is a very reliable indicator, and it would not be an independent measure in this analysis.

2. The filtered version provides an explicit nonresponse option. For example: "Congress has been considering the Agricultural Trade Act of 1978. Do you favor or oppose the passage of this act or do you not have an opinion on that issue?"

3. In Figure 1 non-filtered fictive questions are considered more difficult because it is harder for respondents to escape the question, since a nonresponse option is not explicit.

4. It is possible that the large difference between the educated selecting mid-points and the less educated tending to choose responses that put them off the scale is more a difference in style than in substance. We suspect that the latter is true. Ambivalence should represent informed indecision; nonattitudes, a lack of knowledge and/or interest. These descriptions seem to fit the better educated and less educated, respectively.

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