

DATA-SECTIE

Some determinants of

Interview bias

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## 1. Introduction.

One purpose of this paper is to present a review of the literature on interview bias. Contrary however, to most of the existing reviews of the topic (e.g. Boyd and Westfall, 1965; Cannell and Kahn, 1968; Neter, 1970; Sudman and Bradburn, 1974; Weiss, 1974), the present paper is oriented toward the construction of a theory about interview bias.

A preliminary phase in this process of theory construction could be the determination of the plausibility of theoretical statements which relates underlying factors to interview bias. So the second purpose of this paper is to organize the available literature in such a way that meaningful determinants of interview bias can be formulated, so that they can guide further theory construction.

## 2. Methodological considerations.

### 2.1. Organization of the literature.

It should be noted that the choice of a classification system has some definite impact on the to be obtained results. If one wants to obtain theoretically meaningful results, one can hardly escape the necessity to design a theoretical meaningful classification system. This implies a dependency bias, the impact of which cannot be estimated.

This paper is based on the following, simple model of the interview (a simplified version of the model of Van der Zouwen, 1974).

If factors defining the interview situation (e.g. the place of the interview, the posed questions, demographic characteristics of interviewer and respondent, their opinions and attitudes, their mutual liking, and so on) are called  $x_1$  and the answer of the respondent  $y_a$ , the interviewer (or researcher) infers from this answer the state of the respondent he is interested in (e.g. an opinion, a feeling or a not readily observed demographic characteristic like occupation). If this inference, or estimation of some state variable is called  $\hat{x}$ , the model may be depicted in fig. 1.

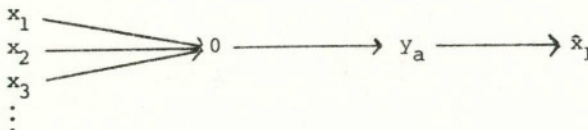


Fig. 1.

In fig. 1,  $x_1$  is the state variable, the researcher is interested in. Besides this state variable, other interview variables ( $x_2, x_3, \dots$ , etc.) exert some influence on the response (whether or not in interaction with each other). Interview bias is now defined as the occurrence of wrong estimations, because of the effects of interview variables. It should be noted that there may be more causes of wrong estimations, for example errors in coding. These are not regarded as interview bias however. A response, or more precisely an estimation, will be called valid if it is influenced by the variable the researcher wants to estimate.

#### 2.1.1. Dependent variables.

The validity of an estimation can seldom, if ever, be measured exactly. Nevertheless, if one is willing to make some assumptions, it is possible to investigate the effects of supposedly relevant interview variables on the validity of the estimation. These assumptions define the dependent variables.

Assumption 1: Factors affecting the response ( $y_a$ ) will affect the validity of estimation.

The assumption is rather weak; e.g. an overreporting and an underreporting response are quite different, but may be equally invalid. In the same way, if one compares response distributions from respondent groups under different conditions, finding the same distributions, does not necessarily imply that there is no effect on validity, e.g. because in one group over-reporting and underreporting may tend to cancel each other out, whereas another group responds quite validly. Also it should be noted that it is not possible to specify the direction (positive or negative) of the interview variable with the validity of the response. Nevertheless, the assumption seems plausible, and the information provided, may be quite valuable.

Assumption 2: Factors affecting the amount of relevant information of a response positively, will affect the validity of the estimation positively. The weakness of this assumption is self-evident. Support for it is presented by Cannell and Fowler (1963b) and Marquis, Cannell and Laurent (1972) with respect to health data.

Assumption 3: Factors affecting the sociale desirability of a response positively, will affect the validity of the estimation negatively.

It is recognized by many authors that if one has the possibility to give social desirable answers, this constitutes a persevering threat to the validity of interview data.

Raadschelders and Van der Zouwen (1976) found in their review on concurrent validity of interview data that responses on questions were less valid if social desirable answers were possible.

Assumption 4: Factors affecting the difference between the estimation and some other (outer) criterion concerning the same state variable of the respondent positively (that is, toward a smaller difference), will affect the validity of the estimation positively. This is essentially concurrent validity; especially if factual data (see 2.1.3.) are concerned, the assumption seems very plausible.

#### 2.1.2. Independent variables.

The independent variables to be discussed in this paper, are listed below. No attempt is made to define them formally; rather they are used in accordance with the obvious intention of the researcher.

To clarify their meaning, however, null-hypotheses are stated too.

- interviewer: different interviewers obtain similar responses,
- evaluation interviewer: the interviewer's evaluation of particular answers as perceived by the respondent, does not influence the response,
- method: face-to-face interviews and telephone interviews yield equally valid responses,
- questions: different formulations of the same question have no effect on response validity,
- order: the order in which different questions are posed does not influence validity,
- rapport: the rapport between interviewer and respondent has no impact on the validity of the estimation,
- place: different interviewplaces yield the same validities,
- others: the presence of others, except interviewer and respondent, does not affect the validity of the estimation,
- reinforcement: the reinforcement of certain responses has no effect on validity,
- status: the status of interviewer and respondent, or the status difference between them bears no relation with response validity.

#### 2.1.3. Types of data.

Generally a distinction is made between attitudinal information and factual information. Attitudinal information refers to respondent attributes like attitudes, opinions, beliefs or motivations, which are essentially unobservable.

Factual information concerns data like age, sex, income or occupation, which could essentially be observed or checked against outer criteria. In this review the same distinction is made.



## 2.2. Handling the research.

### 2.2.1. Choice of literature.

Three criteria are relevant here.

First, research results had to fit with the above mentioned dependent and independent variables. Sometimes this relies heavily on auxiliary assumptions one is willing to make; e.g. the assumption that a negro interviewer is perceived by the respondent as evaluating pro-negro attitudes more positively. The main difficulty in this respect is that very often researches on interview bias are not primarily designed as such, but arise from secondary analysis of data gathered for different purposes. The plausibility of these auxiliary hypotheses are subjectively evaluated per research result; if necessary the research result is discarded.

Second, research results had to concern interviews with the following characteristics (c.f. Van der Zouwen, 1977):

- questions are posed by the interviewer and answered by the respondent, in a personal contact situation,
- the interview has a clear theoretical or practical purpose, which shows up in the structured ordering and formulation of the questions,
- it is not a particular respondent whose attributes and characteristics the researcher is interested in, but an element of some specified sample of people.

So, for example, questionnaires sent by mail, or clinical interviews, are not considered.

A final criterion is that publications before 1940 are not subsumed.

### 2.2.2. Summarizing the research results.

According to Taveggia (1974) research results are probabilistic: "... if a large enough number of researches has been done on a particular topic, chance alone dictates that studies will exist that report inconsistent and contradictory findings ! Thus wat appears to be contradictory may simply be the positive and negative details of a distribution of findings" (p. 398). Moreover, ".... (existent) reviews fail to cumulate research findings and examine their combined distribution. Instead, researches are summarized in a piecemeal fashion with the result that the summaries tend to bog down in a consideration of empirical details and, particularly, in a concern with inconsistent and contradictory findings which may simply be temporal, spatial, contextual, or methodological anomalies" (p. 399).

Research results will be summarized as suggested by Taveggia, if appropriate (e.g. summarizing one research finding does not make sense). Nevertheless, if research results are contradictory, some attention will be given to

variables on which contradictory investigations may differ. However, these variables will be restricted to method, content of interview questions and statuses of interviewer and respondents, as apparently important dimensions, along which survey interviews may differ (cf. Summers and Hammonds, 1969), provided that this information is present.

In addition, it should be noted, that if the null-hypothesis is true, one should expect quite a large number "zero"-results, besides positive and negative results. However, one should bear in mind, that the probability of finding zero-results becomes smaller if the number of respondents becomes greater, and that there is a tendency not to publish zero-results; this will particularly be true as far as results of secondary analyses are concerned.

### 2.2.3. Interpretation of research results.

Researches may differ widely in the way results are presented. Common failures in presentation are use of inadequate statistics, or the lack of p-values. Generally speaking, the conclusions of the authors are followed. If serious doubts exist about these conclusions, this is indicated in the summary tables. Sometimes there may be questions about the operationalizations.

## 3. Results.

### 3.1. Rules of summary presentation.

For the sake of simplicity of presentation, the following symbols and shortcut formulations seem convenient.

- A research result is identified by the first three letters of the (first) author and the last two numbers of the year of publication. To avoid confusion, investigations which are abbreviated in this way, will be indicated by an asterisk in the reference list.  
More publications of one author in the same year, will be identified in the usual way with "a", "b", etc. For instance, "bla 40a" and "bla 40b" had to be identified as "Blankenship 1940a" and "Blankenship 1940b".  
If more independent investigations (different samples of respondents) are reported in one publication, this is indicated with different numbers, like "cah 60<sup>1</sup>" and "cah 60<sup>2</sup>".
- The number of respondents per independent investigation is given under "N". This number is sometimes approximate.
- "A-responses" stands for responses concerning attitudinal information: attitudes, opinions, beliefs, and the like.
- Responses concerning factual information are indicated by "F-responses".

- If it is unclear whether the research result refers to attitudinal or factual information, "X-responses" is used.
  - A "-" means a negative relation between independent and dependent variable, a "0" means no relation, whereas a "+" means a positive relation, or simply the existence of a relation if the direction could not be determined.
- To avoid confusion, the exact meaning will be clearly stated in the accompanying text.
- Each research result will be indicated with a "/"; if doubts exists (see 2.2.3.) a "?"

### 3.2. Interviewer-effects.

Table 2. Different (+) or similar (0) responses or response distributions, obtained by different interviewers.

research	N	A-responses		F-responses		X-responses	
		0	+	0	+	0	+
bin 65	105		/?		/?		
can 64	800				/		
dav 62	19			/			
fel 51	920		/	/			
fre 76	2600						/
hen 77a	330						/
kis 62 <sup>1</sup>	462		/		/		
kis 62 <sup>2</sup>	489		/		/		
omu 76	180		/	/			
sud 77	1172				/		
total		0	5	3	5	0	2

It is concluded that the interviewer has a clear impact on the attitudinal information he obtains. His effects on factual information seems to be considerably less.

### 3.3. The evaluation by the interviewer of particular responses.

Evidently, the interviewer might appreciate some of the respondent's answers better than others; e.g. because they confirm own opinions. Such evaluations could be communicated by clear cues (such as the interviewer's race, when racial attitudes are concerned), but also by very subtle ones (e.g. the research of Barath & Cannell, 1976, where the interviewer's voice intonation might have communicated his appreciation of "yes" responses).



Of course, what matters are the interviewer's evaluations as perceived by the respondent; these need not be his real evaluations.

Table 3. Correlation between apparent evaluation of interviewer and response of interviewee.

research	N	A-responses			F-responses		
		-	0	+	-	0	+
ath 60 <sup>1</sup>	100			/			
ath 60 <sup>2</sup>	150			/			
bar 57	258			/			
bar 76	228						/
bla 77	483					/	
bla 40a	300			/?			
bry 66	60		/				
ehr 61	*)			/			
fel 51	920		/				
fer 52	448			/		/	
fri 42	100					/	
hat 75	106			/			
joh 76	1361		/			/	
kat 42	1203			/			
lin 51	85					/	
rob 63	83						/
she 49	1168			/			
sta 42	200						/
wya 50	1155		/				
total		0	4	9	0	5	3

\*) N not known, but conceivably very large.

The interviewer's evaluation of particular response categories, as perceived by the respondent, seems to be a clear source of bias as far as attitudinal data is concerned. The effect on factual data is less obvious.

### 3.3.1. The effect of the apparent evaluation of the interviewer, for different status groups.

The effect of the interviewer's evaluation may be different for different respondent groups. Some evidence is available for different status groups. See table 4.

Table 4. Greater effects of the apparent evaluation of the interviewer for high respondent status, or low respondent status, or equal effects for both statuses.

research	N	A-responses			F-responses		
		low	equal	high	low	equal	high
har 60	40	/					
len 60	600	/					
phi 72	404			/?			
sch 71	495	/			/		
wil 64	840	/					
total		4	0	1	1	0	0

The result is rather clear-cut: the apparent evaluation of the interviewer has a greater impact if the respondents are of low status.

It is important to note that the effect of the evaluation of the interviewer could be attributed to two different causes.

First, the interviewee may more or less deliberately distort his responses in the direction of the perceived evaluation of the interviewer;

Second, the interviewer may more or less deliberately distort the responses of the interviewee such as to conform his own opinions, expectations and so on.

The present result seems to suggest the first explanation. There is no special reason why the interviewer should distort the responses of low status people more; if there should be a difference, more distortion for the high status group could be expected, because it is better for self-evaluation to find a high status person giving a to be liked response, than a low status person.

If the interviewee distorts his response, it is more conceivable that distortion will take place if he sees the interviewer higher in status (low status respondents), rather than lower in status (high status respondents). Data relating the effect of the interviewers (perceived) evaluation to the status of the interviewer (holding interviewee status constant) are not known.

A slightly different hypothesis could be that lower status respondents are simply more affected by the perceived evaluation of the interviewer, because of a more general greater influenceability. It could be assumed that lower status respondents are more willing to act as ingratiating respondents; that is, give answers that are apparently appreciated by the interviewer, like conforming to the interviewer's expectations (c.f. Hyman e.a., 1954, who however "blame" the interviewer for the distortion),

or even to his opinions. This is quite comparable to Rosenberg's (1969) 'evaluation apprehension' (see also Rosnow and Aiken, 1973, for a comparable "artifact model", that could very well be applied to the interview).

For the moment however, the following conclusions seem important:

- Apparently it is the interviewee who distorts the response, and so it is his perception of the interviewsituation and not the interviewsituation itself that seems to be the primary determinant of bias;
- This is mediated by status-factors, albeit it unclear whether these factors concern respondent-status, interviewer-status, or the social distance between them.

It should be noted that until thus far no directional effects on interview bias are specified. At best, one could conclude, that if some of the above remarks are valid, status factors could have some directional effect on bias. It seems appropriate to review next investigations concerning effects of status factors on the validity of responses.

### 3.4. Status effects.

#### 3.4.1. Respondent status.

Table 5. The relation between validity of estimation as measured by external criteria and respondent status.

research	N	F-responses		
		-	0	+
bel 66	725			/
cah 68	913		/	
can 63a	462			/
fis 62	1491			/
hym 44 <sup>1</sup>	243	/		
par 70	536			/
ste 65	644	/		
total		2	1	4

The results are somewhat ambiguous. As far as could be determined, all investigations concern face-to-face interviews, whereas there are no systematic differences between interviewers. More interesting is the content of the interviews.

Of the four results where was found that high SES interviewees respond more validly, three concern health information (can 63, par 70 and fis 62).

Ste 65 and bel 66 concerned voting and vote registration, whereas hym 44<sup>1</sup> was a question about redeeming war bonds.

It may be concluded that high SES respondents give answers that more validly could be interpreted as reflecting their state, than low SES respondents, especially if health information is asked.

### 3.4.2. Interviewer status.

The available information about effects of interviewer status is rather fragmentary, and hence will not be summarized in tables.

Feldman, Hyman and Hart (1951) found no different responses for different interviewer statuses. Cahalan (1968), reporting on the same research results, found no effect of interviewer status on the social desirability of the response or the validity of the response.

Cosper (1972), reporting on drinking practices, mentions that upper status interviewers found more drinking than lower status interviewers.

Weiss (1968) found that low status interviewers obtained more social desirable A-responses, and less valid F-responses.

Freitag and Barry (1974) found no effect on the amount of information.

To summarize, respondent and interviewer status seem to have some effect.

The suggestion made by Dohrenwend, Colombotos and Dohrenwend (1963), that there is an inverted-U relationship between (perceived) social distance and validity of response, the response being most biased, if the social distance as perceived by the respondent, is either very small, or very great, may be relevant (c.f. Dohrenwend, Williams and Weiss, 1969, too).

### 3.5. Method.

Compared are the telephone and the face-to-face interview.

Table 6. Different (+) or similar (0) responses or response distributions, obtained by different methods.

research	N	A-responses		F-responses		X-responses	
		0	+	0	+	0	+
cah 60 <sup>1</sup>	169			/			
cah 60 <sup>2</sup>	200			/			
hoc 67 <sup>1</sup>	1779					/	
hoc 67 <sup>2</sup>	946					/	
kle 78	1639	/		/			
rog 76	247			/			
wis 72	198	/					
total		2	0	4	0	2	0



The results are quite clear: essentially the same responses or response distributions are obtained by either telephone or face-to-face interviews.

Table 7: Greater validity of estimation as measured by external criteria (e.c.), social desirability (s.d.), or amount of information (a.i.) in face-to-face interviews or telephone interviews, or equal validities for both methods.

research	N	A-responses			F-responses			X-responses			dependant variable
		tel	equal	ftf	tel	equal	ftf	tel	equal	ftf	
col 69 <sup>1</sup>	128							/?			s.d.
col 69 <sup>2</sup>	748								/		s.d.
hen 77b	680			/			/?				s.d.
her 77	1239				/						e.c.
hoc 67 <sup>1</sup>	1779				/						e.c.
hoc 67 <sup>2</sup>	946				/						e.c.
lar 52	313						/				e.c.
loc 76	474				/						e.c.
oak 54	109									/	a.i.
total		0	0	1	0	4	1	1	1	1	

The conclusion above seem confirmed: the method of interviewing - either by telephone or face to face - has hardly any effect on the validity of the obtained responses, at least if factual information is concerned. In the case of other types of data, face to face interviews may have some advantages, but the evidence is very weak. Intuitively it is suggested that in the case of sensitive topics, the face to face interview might be preferred. For the usual survey-interview this will on-y seldom occur.

### 3.6. Effects of question wording.

Table 8: Effect of question wording on response or response distribution.

research	N	A-responses		F-responses		X-responses	
		0	+	0	+	0	+
ada 56	341	/					
bis 78	500		/				
bla 40b	1726		/				
can 40	3100		/				
gal 41	750?	/					
hen 77a	330			/			
hen 77c	204				/		
hit 76	1037	/					
hym 44 <sup>2</sup>	358				/		
lau 72 <sup>1</sup>	27						/
lau 72 <sup>2</sup>	202						/
lau 72 <sup>3</sup>	60						/
lau 72 <sup>4</sup>	24						/
pow 77	1332	/		/			
sch 77	7450		/				
ste 49	1284		/				
total		4	5	2	2	0	4

The results seem somewhat ambiguous. It is important to realize that question wording is not an unidimensional variable. Questions asking the same information may differ along many different dimensions; these dimensions need not be the same for the different investigations. Ada 56, bla 40b, can 40, gal 41 and hit 76 used rather slight wording variations, like positive or negative formulations, adding names of politicians, suggestive formulations, whereas ste 49 presented different numbers of answer alternatives. Bis 78 compared the response-effects of questions in agree-disagree format, with questions in dichotomous choice format and questions in seven point scale format. Hym 44<sup>2</sup> studied the effect of "intensive" formulations, whereas the lau 72 and the hen 77 studies essentially compared short with long questions. The intensive and long questions tended to produce more valid responses moreover. It is interesting to note that the question length

manipulation of lau 72 is rather strong and that a less strong lengthening did not produce significant results. These considerations seem to suggest that question wording is effective in that different questions may differently motivate the respondent, assuming that long questions (c.f. Matarazzo and Wiens, 1972) and "intensive" questions positively motivate him, and that less strong question manipulations have only weak effects, showing up only if the sample is sufficiently great (like can 40 and bla 40b).

Pow 77 examined the existence of serial order preference, the tendency to select a particular response category because of the rank order position of response options.

Finally, sch 77 concludes, that the use of agree-disagree statements or forced choice items does influence the response.

The same holds for open vs closed questions.

In addition three studies, investigating the effect of question wording, mediated by respondent status, are summarized in table 9.

Table 9: Greater affects of question wording for high respondent status or low respondent status, or equal effects for both statuses.

research	N	A-responses			F-responses			X-responses		
		low	equal	high	low	equal	high	low	equal	high
doh 70	219			/						
hen 74/77a	330									/?
mar 72a	404						/			
total		0	0	1	0	0	1	0	0	1

All three investigations agree in that more educated (as indicator of status) respondents are more influenced by question wording; doh 70 found less social desirable answers on non-directive questions, as compared with directive questions; in mar 72 longer questions evoked more valid answers; hen 74 reports that adding motivating remarks like "take as much time as you need for this "question" yielded more information with  $p < .10$ . For lower educated respondents no clear relations were found. With respect to table 8 it should be noted that no suggestive status differences are present.

In summary it could be stated that possible effects of question wording are probably mediated by effects on motivation, and moreover, that this effect works particularly well with more educated respondents.

The last statement may seem somewhat curious; it could be understood however if one assumes that better educated respondents are better able to convert their motivation into action (c.f. Henson, 1974; Rosnow and Aiken, 1973).

### 3.7. Effects of question order

Table 10: Effects of question order and response distributions.

research	N	A-responses		X-responses	
		0	+	0	+
bec 54	16193		/		
bra 64	2787	/			
hit 76	931	/			
cla 71	8000			/	
del 75	1642			/	
total		2	1	2	0

Question order does not seem to have clear effect on the response distribution. It should be noted that cla 71 did find a significant but extremely weak effect, and attributed the significance therefore to the very large sample. In the same way the significant results of bec 54 concern very weak order effects, that are hardly of any practical significance.

Moreover, Campbell and More (1950) did a comparable investigation, but with questionnaire. They did not find any significant effect.

It is concluded that as far as there are order effects, they are very weak and hardly warrant special attention.



### 3.8. Effects of rapport

Table 11: The effect of rapport on the validity of response as measured by external criteria (e.c.), social desirability (s.d.) or amount of information (a.i.).

research	N	A-responses			F-responses			dependent variable
		-	0	+	-	0	+	
bah 71	328					/		e.c.
fis 62	1491						/	e.c.
fre 74	724			/				a.i.
hen 76/77c	204						/	a.i.
hen 76/77c	204				/?			e.c.
mar 72b	151					/		e.c.
mar 72b	151					/		a.i.
rog 76	247					/		e.c.
wei 68	549				/			e.c.
wei 68	549	/						s.d.
total		1	0	1	2	4	2	

It is concluded that rapport has no clear effect on the validity of the response. No suggestive differences exist between investigations with respect to status factors, method and interview content. However, the way how rapport was determined deserves some special attention, because this clearly differs among investigations (see also Goudy and Potter, 1975, who assert that as long no conceptual agreement on the definition of rapport exist, any empirical study of rapport may be useless).

Fre 74, bah 71 and wei 68 used evaluations by the interviewer, fis 62 used evaluations by the respondent, rog 76 let interviewers rate by field supervisors, and hen 76 as well as mar 72 purposefully manipulated interviewer behavior. The effects of the manipulation were confirmed by postinterview questionnaires, administered to the respondents.

It should be noted here that the manipulation procedures, contained among other things unsystematic reinforcement, so these studies might be partly relevant in this context too (see next paragraph).

For the moment it is very tentatively suggested that rapport procedures might increase the amount of information, as well as the tendency to give social desirable answers.

### 3.9. Effects of reinforcement.

Investigations of reinforcement effects are fairly heterogeneous and therefore can only partly be summarized in tables. Different effects could be expected if A-responses or F-responses are reinforced. Also it may make a difference if one reinforces at random (or all responses), or a certain class of responses. It is a very common research strategy to reinforce those responses, constituting a well-defined attitude toward some object. It is consistently found that response distributions change in the direction of maximizing positive reinforcement and minimizing negative reinforcement (e.g. Hildum and Brown, 1956). Relevant studies will not be reviewed here, however, because these studies have only a borderline resemblance with the typical survey study. The phenomenon itself however, can hardly be denied, and is theoretically quite important for any interview theory. Two different views might be possible.

First, the reinforcement of certain A-responses may convince the respondent that the interviewer himself has some definite opinion. The respondent may next conform to this perceived opinion, for example to avoid imbalance (cf. Insko and Cialdini, 1969).

Second, in the earlier reviewed studies concerning the evaluation of the interviewer (3.3.), it was suggested that such evaluations (or opinions of the interviewer) were communicated by cues in the interview situation. It may be that such cues function directly as reinforcer according to instrumental learning theory (Dijkstra, 1976) and affect responses in this way.

It should be noted that the results of table 4 (greater effect of the evaluation of the interviewer for lower status respondents) could be predicted from both views.

Another strategy is to reinforce all responses (or reinforce without a system). One could argue that responding itself is reinforced and so expect a positive effect on the amount of information, and, according to the assumptions in 2.1.1. on validity.

The results will be summarized in the following table.

Table 12: The effects of unsystematic reinforcement on the validity of response as measured by external criteria (e.c.), social desirability (s.d.) or amount of information (a.i.)

research	N	A-responses			F-responses			X-responses			dependent variable
		-	0	+	-	0	+	-	0	+	
fie 55	433									/	a.i.
fie 55	433									/	e.c.
mar 70	429							/			a.i.
oks 77	921							/			a.i.
oks 77	921	/			/						s.d.
vin 77	323							/			a.i.
vin 77	323	/									s.d.
total		0	2	0	0	1	3	0	0	2	

Reinforcement procedures, unsystematically administered to the respondent, enhances the amount of information given, but does not influence the social desirability of the obtained answers. Therefore, such procedures seem especially suited for situations where the investigator wants to obtain as much information as possible.

Some additional data from fie 55 and oks 77 suggest that reinforcement has no effect on the respondent's evaluation of interview or interviewer. Apparently, such factors do not mediate the effects of reinforcement.

It is suggested that reinforcement has primarily motivational effects, and generally may facilitate responding ('This seems to fit with instrumental learning theory. Unsystematic reinforcement procedures may very well enhance the general drive level, which, energizing all habits, facilitates all responses; see Spence, 1956.).

### 3.10. Place of interview.

No systematic studies investigating the effect of the place where one is interviewed are known. Research on interviewing suggests that most interviews are made at the home of the respondent, and sometimes at places related to the job of the respondent. Lutýnska (1970), exploring Polish survey results, suggests however, that there are more places where one is interviewed (e.g. a café) and that the place has some impact on the results. More systematic study is needed.

### 3.11. The presence of others.

Like effects of the perceived opinion of the interviewer on the response, it could be expected that the presence of others besides interviewer and respondent, has an effect in the direction of the apparent opinions and attitudes of the other on the response. Systematic research however is rare.

Taietz (1962) found, contrary to expectation, that opinions of older persons about the extended family were more conservative when children were present, than when the spouse was present. Koomen and Van Ravesteijn (1968) did not find systematic differences; for a single question there may have been some effect on response in the direction of the perceived attitude of the other person. Lutýnska (1969) concludes from Polish survey results that the presence of others did affect the response.

It is concluded that the presence of others may have an effect on the response. The data don't warrant definite conclusions, but two very tentative suggestions are made.

First, it is suggested that only opinions and attitudes that are salient for both parties (respondent and other person) have effects.

Second, it is noted that the relation between interviewer and respondent is essentially temporary, whereas the relation with the



other present person (or persons) most likely is not. The implication is that effects of interviewer and other persons may be very differently, contrary to what is suggested above. In addition, role theory suggests that the presence of others could make possible role conflicts (e.g. being a good respondent versus a good parent) more salient.

#### 4. Conclusion.

The interviewer constitutes a very powerful source of bias. His opinion seems to have a definite impact of the response. These interviewer effects are most striking if attitudinal information is concerned, and if respondents are of lower socio-economic status.

Probably interviewer effects are mediated by subtle cues provided by the interviewer (cf. Williams, 1968). These cues may directly influence the response in that they function as reinforcers, or indirectly in that they provide information about the interviewers opinions.

Rapport, question order and method (telephone or face-to-face) don't seem to have much effect on the response.

Effects of question wording are complex. Different methods of formulating different questions, seem to interact differently with respondent status. Lower status respondents answer less validly than higher status respondents. This seems to be no direct relation however, but a consequence of the interaction between status and biasing factors.

Earlier it was noted that much research on interview bias results from explorations on data gathered with a different purpose. This bears the implication that, because of a clear tendency to search for "positive" results, interview bias is a much less serious problem than suggested by the literature.

It is rather difficult to make the distinction, but the few researches that are specially designed to test specific hypotheses (stated beforehand) about bias have disproportionately often negative or borderline results (e.g. Adams, 1956; Bradburn and Mason, 1964; Bryant, Gardner and Coleman, 1966; Henson, 1974; Hitlin, 1976, among others).

In this context the curious results of a series of experiments by Walsh (1967; 1968; 1969) may be placed.

In all experiments students were personally interviewed on academic achievement (e.g. "How many courses have you failed ?").

In the first experiment the respondent was told that depending on the information he gave, he could be selected for a research project.

One group was promised \$ 15 an hour participating in this project, the other group was promised no financial reward. Responses were compared with available external criteria. The financial reward showed up to have no effect on accuracy of report.

The second experiment was essentially the same, except that the direction of the expected distortion was clearly indicated (e.g. "the project is interested in students that are intelligent, hard-working and determined to do well"), whereas the other group was informed that their responses should be compared with university records. Both groups essentially reported equally accurate.

In the third experiment the direction of the expected distortion was reversed ("the project is interested in students that are low in general intellectual ability and are average or below in academic performance"; no financial reward was promised). Moreover, a third group was added. This group was asked to "respond to these items inaccurately. In other words we want you to distort the responses". Subjects in this last group tended to overstate their responses for three of eight items.

Interview bias seems to be a strange phenomenon, plaguing the investigator who wants to avoid it, by presence and the investigator who wants to approach it, by absence.

Research, clearly directed toward interview bias seems appropriate.

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