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Harkness, Janet; Mohler, Peter Ph.; Schneid, Michael; Christoph, Bernhard

Veröffentlichungsversion / Published Version

Konferenzbeitrag / conference paper

Zur Verfügung gestellt in Kooperation mit / provided in cooperation with:

GESIS - Leibniz-Institut für Sozialwissenschaften

Empfohlene Zitierung / Suggested Citation:

Harkness, J., Mohler, P. P., Schneid, M., & Christoph, B. (1998). Incentives in two German mail surveys 1996/97 & 1997. In A. Koch, & R. Porst (Eds.), *Nonresponse in survey research : proceedings of the Eighth International Workshop on Household Survey Nonresponse, 24-16 September 1997* (pp. 201-218). Mannheim: Zentrum für Umfragen, Methoden und Analysen -ZUMA-. <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-49707-7>

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Incentives in Two German Mail Surveys 1996/97 & 1997

JANET HARKNESS, PETER MOHLER, MICHAEL SCHNEID AND
BERNHARD CHRISTOPH

Abstract: Two mail surveys, each with three mailings, were carried out with nationally representative samples in eastern and western Germany in winter 1996/97 and spring 1997. Data is available on respondents and nonrespondents for both. In the 1996/97 study this is limited for nonrespondents to sex, age and regional location. In the second study rich data is available on everyone eligible. The first study used an enclosed 'near-to-cash' incentive (postage stamps), the second promised inclusion in a special lottery in return for participation. Detailed records of response and other reactions were kept. This paper presents the first results from the studies. Recent research on incentives and nonresponse in studies with more than one mailing is scarce in Germany. Our findings on incentive impact are in line with findings for North America, both with respect to the generally positive effect of using incentives and to differences in the impact of promised and enclosed incentives. Stamps seem to have been perceived as 'cash' gifts. Higher refusal rates among those sent stamps are seen as increases in 'reaction-response' and are discussed in terms of communicative obligations as well as cognitive dissonance. Age and sex differences in the two studies are discussed, as are costs and cost-effectiveness for the two kinds of incentive.

Key words: incentives, lottery, stamps, mail, response

1 Introduction

In December 1996 ZUMA participated in an international research project on administration mode effects across countries and languages.¹ The project included an experiment designed to gather information on incentives in mail surveys in Germany. Immediately following this study, a second incentives experiment was conducted as part of the 1997 International Social Survey Programme (ISSP) study. This paper presents the first results from the incentive studies.

¹ The stamps study replicated the ISSP module of the same year, except that a postal administration replaced *self-completion* with *interviewer attending*. In fact, a third of respondents in the main ISSP study completed the questionnaire as a face-to-face interview and so the ISSP 1996 dataset has a variable: *mode*.

2 Method

Both experiments were part of almost identical survey designs.

- Nationally representative, randomly selected samples of adults living in private accommodation in eastern and western Germany;
- Names and addresses from the residents' registers maintained by municipalities and drawn for the 1996 ALLBUS sample (for details of the ALLBUS sample, see Wasmer et al. 1996);
- Mail surveys with two follow-up mailings;
- Module design, accompanying materials, and fielding designs were identical apart from the incentive type offered and a one-page report on 1996 findings included in the second mailing for one of the studies (see Table 1);
- Each module was an ISSP survey, thus comparable in tone, length (ca. 60 ticks), background variable questions, investigatory approach, appearance and respondent burden.

One important difference between the two studies is that the 1996/97 study used fresh addresses, that is, contacted people for the first time, whereas the 1997 study was a panel; the names and addresses were of people who participated in the 1996 ALLBUS. The other important difference was the type of incentive offered.

Incentives Offered

1996/97 STAMPS: The ISSP Role of Government III module was sent to 1,296 people. Fifty percent of these (648 people), selected on a random basis, were sent four normal letter rate postage stamps in their first mailing. The stamps were described as a thank-you gesture for their help.

1997 LOTTERY: The ISSP Work Orientations II module was sent to 3,711 people. Two-thirds (2,475), selected on a random basis, were given the chance of being one of three winners of DM 1,000 if they returned their completed questionnaire within a deadline. The offer was described as a thank-you gesture for their help.

Information on Targeted Respondents

STAMPS: Sex, age, regional location and size of community is available for non-respondents.

LOTTERY: Sex, age and regional location is available for 18-year olds who were too young to participate in the 1996 ALLBUS-ISSP studies but were sent questionnaires in the 1997 lottery study. Everyone else sent questionnaires participated in the 1996 ALLBUS study. In the analyses discussed here, the 18-year olds were excluded from both studies, since in the lottery study they were the only people not part of a panel.

Implementation

Table 1 provides an overview of sample information, mailing contents, fielding dates, etc.

Table 1: Overview of samples, mailings and fielding information

SAMPLE	STAMPS	LOTTERY
<i>coverage</i>	adult population in private accommodation	adult population in private accommodation (panel)
<i>issued</i>	1,296	3,711
<i>eligible</i>	1,206	3,540
<i>representation east and west</i>	over-representation eastern Germany: 888 west, 408 east	over-representation eastern Germany: 2,519 west, 1,192 east
<i>incentive coverage</i>	50% (648) offered stamps	2/3 (2,475) offered lottery chance
FIELD	STAMPS	LOTTERY
<i>Dates</i>	begin: 5/12/96 end: 3/2/97	begin: 20/2/97 end: 16/5/97
<i>1st mailing</i>	December 5	February 20
<i>2nd mailing</i>	December 17	March 6
<i>3rd mailing</i>	January 2	April 3
Mailing contents	STAMPS	LOTTERY
<i>all mailings</i>	personally addressed letters, institute contact person's name, address and telephone no.	as for STAMPS.
<i>1st mailing</i>	questionnaire, data protection information, pre-paid return envelope, letter, incentive/no incentive	as for STAMPS
<i>2nd mailing</i>	thank you-cum-reminder	as for STAMPS, plus report on 1996 data
<i>3rd mailing</i>	questionnaire, data protection information, pre-paid return envelope, letter	as for STAMPS, plus reminder mention of lottery to relevant split

Field Contact Records

In both studies, detailed records were kept of information on non-participation. This covered people reported to have moved, died, as too ill or absent from home or otherwise unable to participate, as well as details on active refusals for both treatment groups, transcripts of comments included on questionnaires and any other information obtained, such as people returning stamps, empty questionnaires, etc. A summary is provided in Table 2.

Table 2: Overview of field records kept

STAMPS		LOTTERY	
Questionnaire	Completed Incomplete Empty Questionnaire 1 or 2 used Respondent comments on questionnaire	Questionnaire	as for STAMPS
Field Record	Date received Moved, unknown, etc., (post office categories) Deceased Too ill to participate Currently abroad/away Other 'No Participation' Refused (details)	Reactions	as for STAMPS
Stamps	Incentive/ No incentive Used for return mail (details) Returned in envelope	Lottery chance	Incentive/No incentive Winners' reactions
R comments	(available as file)	R comments	(available as file)
Other	(details)	Other	(details)

3 Incentives in mail surveys

Reviews and meta-analyses from other countries, in particular the United States, indicate that incentives generally improve response rates (e.g., Church 1993, Yammarino et al. 1991, Fox et al. 1988, Armstrong 1975, Gajraj et al. 1990, Brennan 1992, Brennan et al. 1991). Enclosed incentives have proved more effective than promised incentives (e.g., Goyder 1994, Church 1993, Gajraj et al. 1990, Kalafatis and Madden 1994, Yu and Cooper 1983) and cash more effective than other token gifts (e.g., Linsky 1975, Kanuk and Berenson 1975, Goodstadt et al. 1977, Hansen 1980). Research also indicates promised lottery participation (of various kinds) is less effective than cash (Gajraj et al. 1990, Hubbard and Little 1988, McDaniel and Jackson 1984) with varying results on whether it is more effective than other promised incentives or than no incentive (Gajraj et al. 1990, Hubbard and Little 1988, McDaniel and Jackson 1984). While Church (1993) suggests that promised inducements are basically not worth the effort, Gajraj et al. (1990) see promised lottery incentives as a cost-effective possibility for large populations.

Findings available for Northern America need not necessarily hold for other continents and countries (Brennan 1992, Eichner and Habermehl 1981, Heberlein and Baumgartner 1981, cf. Yammarino et al. (1991: 630) on intracultural differences). Attitudes and exposures to games of chance and lotteries, for example, clearly differ across cultures, as does exposure to mail inducements. Thus while research on inducements in Germany is relatively scarce and information is still needed on their (cost-)effectiveness, American researchers are already pondering the consequences of working with a population accustomed to inducements and aware of mechanisms to maximise their rewards as respondents.

3.1 Goals of the incentives studies

The two studies described here served multiple research purposes described elsewhere (Harkness, forthcoming). The incentive experiments themselves also served numerous purposes not dealt with here. The goals of relevance to the present paper are:

- to measure the effect of giving ‘near-to-cash’ stamps to respondents;
- to measure the effect of offering the chance of a lottery cash win;
- to compare and contrast these effects and their cost-effectiveness across the two studies.

3.2 Incentive costs and rationale

STAMPS: Treated respondents were sent 4 one deutschmark stamps - at the time sufficient for four letters or greeting cards. Stamps were used for a number of reasons. For example, they are often used in Germany instead of coins to discharge small payments by mail and are technically reimbursable at post offices. A Christmas motif was chosen for the stamps enclosed and the stamps on the mailings, in the hope of increasing their attractiveness (cf. Dillman 1978, Church 1993). Intuitively, the research team felt that enclosing stamps would be more acceptable to respondents than enclosing coins, but the (national) sample was too small to test this, too. Incidentally, two fairly large-sized coins would have been involved for this sum. Lastly, it was thought that the *perceived usefulness* of stamps could be heightened by virtue of the near-to-Christmas fielding dates.

LOTTERY: Treated respondents were offered the chance to be one of three winners of DM 1,000, a sum which amounts to roughly one quarter of the average monthly income in Germany. We refer to Gajraj et al. (1990) for several important differences between promising a monetary reward upon completion and offering the chance to win money.

The lottery in the ZUMA study was a special draw limited to participants in the survey and carried out by a notary public - a respected public figure in Germany. Thus while the sum to be won was a much smaller amount than the multi-millions in national lotteries, three respondents were certain to win. Moreover, the individual chances of winning were very much greater than in an national lottery, even if the letters mailed did not particularly stress this. Given the depressed economic climate in Germany at the time, and the general cultural acceptance of low investment lottery 'flutters', it seemed likely that a lottery could prove motivating.

4 Overview of findings

Table 3 provides a general outline of our results. It contains response data for both studies, and distinguishes between realised interviews, refusals, issued, eligible and ineligible and non-reactions. The reported percentage differences are significant on a 95 % level.

The stamps incentive resulted in almost a five percent increase in response rate among eligible targeted respondents offered the incentive compared to eligible targeted respondents not offered the incentive. The lottery offer resulted in almost a three percent increase in response among eligible targeted respondents who were offered the chance to win money and those eligible not offered the chance to win money. As described below, the percent difference between responses from incentive respondents and those from respondents without incentives differed over time for both studies. The refusal rate in the stamps study was higher in both treated and control group than the total refusal rate and both the incentive and no incentive group refusal rates in the lottery study. We consider possible reasons for this in the next section.

4.1 Refusal as response

As Table 3 reflects, not only did more treated people complete and return questionnaires than the control group in the stamps study, more of those receiving stamps actively refused to participate. In the lottery study, the incentive was a weaker inducement to participate, but with one age group exception (see 4.4), people were also not prompted to refuse actively. (For discussion of refusals and return-refusals beyond the scope of this paper, see Brennan et al. 1991, Brennan 1992, Brennan and Hoek 1992). A number of factors can contribute to these differences.

Table 3: Responses: stamps study and lottery study

Stamps	Realised	Ineligible	Refusals	No reaction	Issued	Eligible
<i>Incentive</i>	210	35	51	352	648	613
% of issued	32,4	5,4	7,9	54,3	100,0	
% of eligible	34,3		8,3	57,4		100,0
<i>Control</i>	174	55	31	388	648	593
% of issued	26,9	8,5	4,8	59,9	100,0	
% of eligible	29,3		5,2	65,4		100,0
% Difference stamps-control (eligible)	5,0		3,1	- 8,0		
% Difference stamps-control (issued)	5,5		3,1	- 5,6		

Lottery	Realised	Ineligible	Refusals	No reaction	Issued	Eligible
<i>Incentive</i>	1159	156	38	1122	2475	2319
% of issued	46,8	6,4	1,5	45,3	100,0	
% of eligible	50,0		1,6	48,4		100,0
<i>Control</i>	546	75	31	583	1235	1160
% of issued	44,2	6,1	2,5	47,2	100,0	
% of eligible	47,1		2,7	50,3		100,0
% Difference draw-control (eligible)	2,9		- 1,1	- 1,9		
% Difference draw-control (issued)	2,6		- 1,0	- 1,9		

(Percentage values are rounded off to one decimal place)

First, the issued population for the lottery study were people who participated in the ALLBUS 1996 study, i.e., a panel. This means that the population consisted of people who, at least in 1996, had been willing to take part in a face-to-face study. Since older

women, for example, are often less willing to participate, older women were under-represented in the ALLBUS study and hence also in the issued cases for the lottery study. And since older women again proved less willing to participate in the lottery study, this group is even further under-represented in the lottery study than in the ALLBUS 1996 study.

On the other hand, the ALLBUS study was carried out without an incentive. Thus the realized sample were all people willing to participate without an incentive. Hence people who could be won over solely by the incentive would be under-represented in the issued population for the lottery study. We see in section 4.4 below that older women in the lottery study do in fact have different reaction patterns from older women in the stamps study. Admittedly, various differences, including mode differences, compound this issue, since interviewers might persuade in instances where mailings do not (cf. Hox and De Leeuw 1994).

Second, the stamps study was fielded over Christmas and New Year, at a time usually not recommended in Germany for studies apart from seasonal projects. This could have contributed to differences in response rate between the two studies. It is less clear how the fielding dates might contribute to the overall higher active refusal rate in the stamps study. Moreover, the lottery study ran through Easter, a time when many people take spring vacations and in Germany are busy to some extent with Easter gifts and celebrations.

Third, the studies differed in topic and topic saliency affects response. The stamps study was on attitudes to the state and government. The lottery study was about attitudes to work. People not in paid employment were filtered past quite a few questions. Arguably, people who had never or no longer worked for pay could feel themselves unaddressed and experience less cognitive dissonance or sense of obligation to react (along the lines of 'this doesn't apply to me anyway').

From a cognitive dissonance perspective (Hackler and Bourgette 1973, Furse and Stewart 1982), an unsolicited near-to-cash gift of modest dimensions ought to create enough cognitive dissonance to prompt participation in order to discharge the social obligation thus created. As Dillman (1978:16) argues, a modest cash gift is more likely to be perceived as a token of appreciation, whereas somewhat larger gifts run the risk of being judged in terms of their adequacy as remuneration.

We suggest a social discourse perspective can usefully be added to this model of social exchange. Interaction between researchers and respondents via instruments (+/- interviewer) has been seen from a communicative (Schwarz 1996) or discourse (Harkness 1996) perspective. There seem to be few good grounds for limiting this communicative perspective to respondents whose communicative activity consists of answering

questionnaires, while excluding those who communicate by indicating that they do *not* wish to comply. In other words, respondents who actively refuse can also be seen as following the logic and principles which govern our social communicative acts, in terms of, for example, speech act theory (Austin 1962) and the cooperative principle underlying social interaction through conversation identified by Grice (1975). By actively responding in the form of a refusal to the request to participate, these targeted respondents, just like respondents who participate, discharge the discourse (and social exchange) obligation they experience after the first mailing with its request and, in some cases, incentive. Follow-up mailings may strengthen respondents' sense of obligation to reply, by virtue of repeating the request, by virtue of reminding them indirectly that they have received an incentive, or through a combination of both, as the case and treatment may be. In this context, it is worth mentioning that a number of people who refused to participate in the stamps study returned the stamps, returned the questionnaire, and/or used the stamps (unnecessarily) to return the questionnaire. Others wrote strongly worded refusals. For those disinclined to participate, dissonance may arguably grow, while unwillingness to participate may persist. In discourse terms this can then result in an active refusal, rather than passive (nonresponse) non-compliance with the request to participate.

The promised lottery incentive increased response but had a weaker and uneven impact (see section 4). Since the incentive was only *promised*, it may also have prompted weaker perceptions of an obligation to react. From a discourse politeness standpoint - where discourse politeness is to be understood as 1) being driven by the need to save one's own and others' 'face' and 2) involving a wide-ranging set of strategies to do so (Brown and Levinson 1978), people uninterested in participating were under no social obligation to *say* they were uninterested. Nonetheless, repeated mailings could create the need to 'answer' (refuse) to get the mailings to stop. In the case of the oldest women, active refusals seem to have been felt necessary.

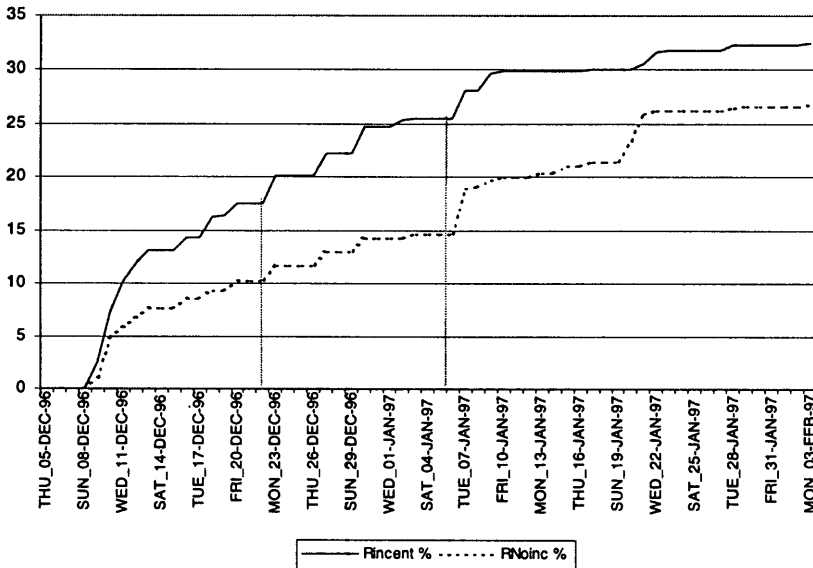
4.2 Response over time

In what follows, we distinguish between *responses*, *reactions*, *refusals* and *nonresponses*. Responses involve returned completed questionnaires, refusals are active indications that targeted respondents are not prepared to participate. These are most often verbally expressed refusals but empty returned questionnaires were also counted as refusals. Reactions include both responses and refusals. Communications indicating targeted respondents were, for example, dead, are included in the ineligibles count. No reaction of any kind from eligible targeted respondents are taken as nonresponses.

The impact of the incentives differed over time in both studies and the response advantage over the respective control group decreased in both studies over the data collection period. In each respect, however, the stamps study shows greater differences. Graphs 1

and 2 present the cumulative responses (percentages) over the three mailings on a daily basis for each study. The days of fielding are entered on the horizontal axis, the percentages on the vertical axis. The vertical lines in each graph mark the beginning of the return from second and third mailings, reckoned from the first reasonable return date for a respective mailing. The two horizontal lines represent the response over the fielding period; the broken line represents no-incentive response, the unbroken line represents incentive response.

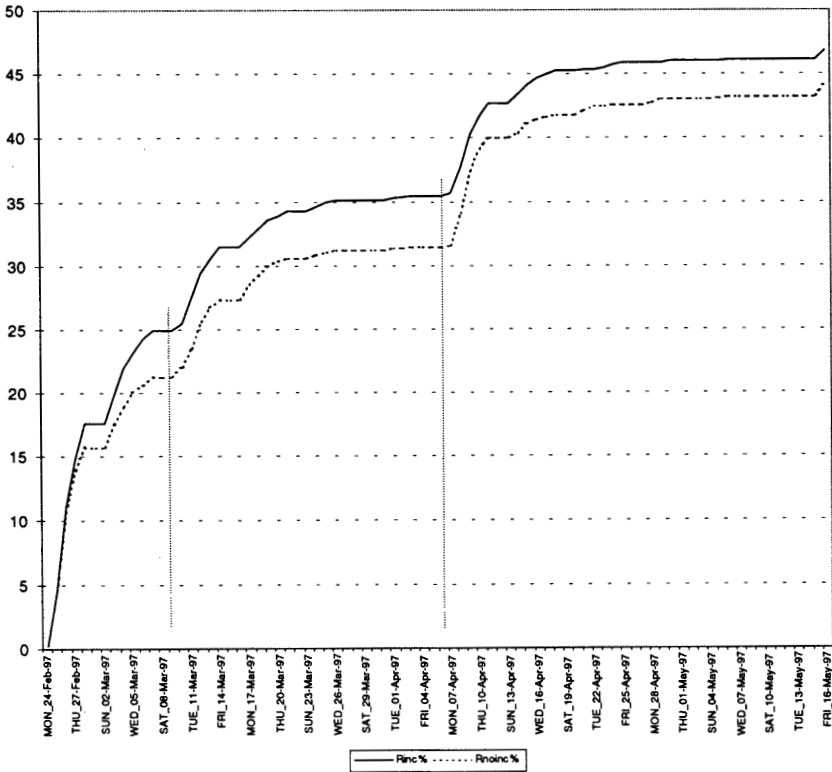
Graph 1: Stamps response in percent



Graph 1 shows how the stronger impact of stamps, which results in a 7 to 10 percent difference in response in the second mailing period between incentive and no-incentive groups, drops after the middle of the third to circa 5 percent. It seems likely that if only two mailings had been made, the total number of responses would have been smaller but the response difference between incentive and no-incentive groups would have been approximately double the 5 percent finally realised.

From Graph 2 we see that the difference between incentive and no-incentive response in the lottery study is consistently much smaller but also fluctuates less. In the second mailing period, it went from 2 to 4 percent and in the third, it stabilises around 3 percent. Thus if only two mailings had been involved here, the response difference between treatments is likely to have been about 1 percent higher than the 2,9 percent finally realised.

Graph 2: Lottery response in percent



4.3 Costs and cost-effectiveness

Table 4 details the costs involved in providing the incentives for each study. These are independent of all the other costs for the studies and they also exclude the re-contact expenses saved through receiving reactions before the third mailing. In the stamps study, the total number of increased responses over the three mailings (treatment versus control) was 36 (cf. Table 3), thus third mailing savings in handling and postage were minimal. For the lottery study, the number of ineligibles by the end of the first mailing period is uncertain, which affects calculations. As it is, some of the details of how and when mail was returned as 'undeliverable' raise questions about the accuracy of German post office information on returned mail.

The most central consideration in discussing the costs of the two studies is that the costs of providing a stamps incentive are directly dependent on the size of treated population, whereas the incentive costs of providing the lottery are independent of the number of people targeted. Thus a much larger targeted population could have been offered a lottery incentive for the same incentive costs, although all other costs would, of course, increase (handling, mailing, paper, data editing, etc.).

Table 4: Incentive costs

STAMPS 1996/97		LOTTERY 1997	
Stamps for 648 respondents (= 648 x DM 4,00)	DM 2,592	Lottery prize money	DM 3,000
Circa 6 hours student assistant help	DM 180	Notary Public	DM 200
		Institute handling of draw	complimentary
Total (spent at begin of fielding)	DM 2,772	Total (spent at end of fielding)	DM 3,200

Table 5 sets out these costs in relation to the total number of treated respondents, the realised interviews, and the costs per additional interview in comparison to the control group for each study.

Table 5: Costs and cost-effectiveness

	Stamps	Lottery
Response rate	34,3 %	50,0 %
Eligible	613 (issued 648)	2319 (issued 2475)
Total costs	2.772 DM	3.200 DM
Realized (n)	210	1159
Costs per realized interview	13,20 DM	2,76 DM
Costs per additional person gained	89,40 DM	47,76 DM
Incentive increase	5 % (n=31)	2,9 % (n=67)
Costs per 1 % increase	554.40 DM	1,103.45 DM

4.4 Age and gender differences in response and nonresponse

The reaction behaviour (responses, refusals and nonresponses) of men and women differed within and across the two studies. Tables 6 and 7 provide the details. Eighteen-year olds have been excluded from both samples since in the lottery study they were the only people not part of a panel.

STAMPS: In the stamps study, the issued population was made up of 52 % women and 48 % men, that is, there were 4 % more women. The realised sample, however, contains 6 % more men than women (53 % men and 47 % women). Not only did more women not respond than men, a greater proportion of women actively refused. 62 % of the active refusals came from women. Moreover, while the issued incentive and control groups were equally balanced with regard to the sexes, a greater percentage of women responded to the incentive than did men. The difference between incentive response and no-incentive response for men is 3,8 %. For women in the stamps study, the incentive versus no-incentive response difference is 9,3 %. While the case numbers involved are small, these differences in reaction behaviour also seem to be dependent on age. Women between 45 and 64, followed by the next oldest age group, 65-74, were more receptive to the incentive than other age groups of women. Women of 75 and over reacted least positively, both in terms of nonresponse (12 %) and in terms of active refusals (21 %).

With the exception of the 35-44 year olds, men in general were at least as likely to respond without incentive as women with incentive.

Table 6: Sex and age group differences in reaction and nonresponse: stamps study (N)

Stamps			Treatment							
			Incentive				Control			
			Sum Rows Incentive	Reaction & Nonresponse			Sum Rows Control	Reaction & Nonresponse		
				Re-sponse	Re-fusals	Non-response		Re-sponse	Re-fusals	Non-response
Men	Age	19-24	18	8	0	10	20	7	0	13
		25-34	58	21	4	33	72	26	2	44
		35-44	59	19	3	37	51	11	1	39
		45-54	53	18	4	31	45	16	1	28
		55-64	47	16	3	28	38	17	2	19
		65-74	30	17	3	10	35	16	1	18
		75+	15	9	2	4	20	7	4	9
<i>Sum Columns Men</i>			280	108	19	153	281	100	11	170
Women	Age	19-24	14	4	1	9	14	4	0	10
		25-34	53	15	1	37	54	11	1	42
		35-44	48	13	4	31	42	10	2	30
		45-54	43	16	3	24	49	13	3	33
		55-64	65	27	7	31	52	14	1	37
		65-74	56	18	8	30	47	10	7	30
		75+	33	4	7	22	43	8	5	30
<i>Sum Columns Women</i>			312	97	31	184	301	70	19	212

LOTTERY: As Table 7 following indicates, differences across age groups and between the sexes are less pronounced in the lottery study. The oldest group of women seem to react negatively to the incentive, as do women between 55-74 to lesser extent. The oldest group has a markedly lower response (21%) than other age groups with incentive, and a lower response than women of the same age in the control group (37%) and a high refusal rate (16%). In the control group, differences between this age group and other ages are

less pronounced than in the incentive group. Active refusals are noticeably higher in the no-incentive group for the two oldest female age groups (11 % and 13 % respectively). In both incentive and no-incentive groups, the oldest women actively refused most. Women between 65-74 with incentive had, in contrast, few refusals.

Men in general were more likely to participate (52 %) than women (47 %) and were less likely to refuse. The incentive improved response rates (unevenly) across all the different age groups of men, with the exception of the group between 55 and 64.

Table 7: Sex and age group differences in reaction and nonresponse: lottery study (N)

Lottery*		Treatment								
		Lottery				Control				
		Sum Rows Incentive	Reaction & Nonresponse			Sum Rows Control	Reaction & Nonresponse			
			Re-sponse	Re-fusals	Non-response		Re-sponse	Re-fusals	Non-response	
Men	Age	19-24	83	49	0	34	65	35	0	30
		25-34	170	87	1	82	152	74	0	78
		35-44	175	97	0	78	176	78	2	96
		45-54	142	79	1	62	135	72	3	60
		55-64	154	82	1	71	161	90	6	65
		65-74	74	40	3	31	88	44	2	42
		75+	30	16	2	12	35	15	2	18
Sum Columns Men		828	450	8	370	812	408	15	389	
Women	Age	19-24	63	38	0	25	53	27	0	26
		25-34	150	75	0	75	166	84	2	80
		35-44	166	86	1	79	145	74	2	69
		45-54	136	74	1	61	143	69	3	71
		55-64	152	70	5	77	151	77	3	71
		65-74	98	45	1	52	124	36	14	74
		+75	63	13	10	40	70	26	9	35
Sum Columns Women		828	401	18	409	852	393	33	426	

*Cases are weighted to adjust for the 2/3 to 1/3 distribution of incentive and control group

less pronounced than in the incentive group. Active refusals are noticeably higher in the no-incentive group for the two oldest female age groups (11 % and 13 % respectively). In both incentive and no-incentive groups, the oldest women actively refused most. Women between 65-74 with incentive had, in contrast, few refusals.

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			Lottery				Control			
			Sum Rows Incentive	Reaction & Nonresponse			Sum Rows Control	Reaction & Nonresponse		
				Re-sponse	Re-fusals	Non-response		Re-sponse	Re-fusals	Non-response
Men	Age	19-24	83	49	0	34	65	35	0	30
		25-34	170	87	1	82	152	74	0	78
		35-44	175	97	0	78	176	78	2	96
		45-54	142	79	1	62	135	72	3	60
		55-64	154	82	1	71	161	90	6	65
		65-74	74	40	3	31	88	44	2	42
		75+	30	16	2	12	35	15	2	18
Sum Columns Men			828	450	8	370	812	408	15	389
Women	Age	19-24	63	38	0	25	14	27	0	26
		25-34	150	75	0	75	54	84	2	80
		35-44	166	86	1	79	43	74	2	69
		45-54	136	74	1	61	49	69	3	71
		55-64	152	70	5	77	52	77	3	71
		65-74	98	45	1	52	47	36	14	74
Sum Columns Women			828	401	18	409	302	393	33	426

*Cases are weighted to adjust for the 2/3 to 1/3 distribution of incentive and control group

In both studies, therefore, differences can be noted across age groups and across genders. In cross-cultural research in which questionnaires need to be translated, 'gendered' questionnaires have been proposed (Acquadro et al. 1996). In similar fashion, one might consider, whether 'gendered' and cohort-targeted incentive treatment could optimise incentive implementation and reduce costs. This would, however, require a better understanding of why, for example, the lottery incentive seems to have had a negative effect on older women.

5 Conclusion

The two studies can be seen as indicating that German targeted populations tend to react and respond in central respects in a fashion comparable to targeted respondents in Northern America. Promised rewards are less effective than delivered rewards, even when the promised reward could lead to considerable financial gain and the delivered reward amounts to only a small token (close to) cash gift. The lottery offer was in general a weakly positive incentive but seems to have had a negative effect on older women. Since the costs of a lottery can be made independent of sample size - and other models have involved considerably lower costs than our triple 'certain handout' study - the results suggest that this form of incentive is arguably useful and cost-effective given large sample sizes and a limited fielding period (cf. Gajraj et al. 1990).

In both studies, as reported elsewhere, older women prove less willing to participate in general. Since they were also more likely than other groups to refuse actively, their non-participation in these studies does not seem to be coupled to non-awareness of a social obligation. Lottery and trading organisations of dubious standing who conduct their business by mail and regularly offer pseudo-competitions and lottery inducements may affect perceptions. Certainly, among older women offered the lottery, fewer participated than among those not offered the lottery.

The cost of a stamps incentive is directly linked to the size of the treated population. The response enhancement achieved was fairly modest, if better than the lottery. If the costs per respondent could be reduced, it could be considered as a useful response enhancer, particularly if fielding is limited to one or two mailings. American studies have achieved positive results with very small amounts of cash. The 'lucky penny' enclosed by some German lottery firms and catalogue houses aspiring for mail trade might well disqualify this as a survey response incentive. It would be relevant to establish, however, whether enclosing one low-value stamp could be just as effective.

References

- Acquadro, C., Jambon, B., Ellis, D. and Marquis, P. (1996). Language and translation issues. In: Spilker, B. (ed.): *Quality of Life and Pharmacoeconomics in Clinical Trials* (2nd ed.). Philadelphia: Lippincott-Raven
- Armstrong, J.S. (1975). Monetary incentives in mail survey. *Public Opinion Quarterly* 39, pp. 111-116
- Austin, J.L. (1962). *How to do things with words*. Oxford University Press, Oxford
- Brown, P. and Levinson, S. (1978). Universals in language usage: politeness phenomena. In: Goody, E. (ed). *Questions and Politeness: strategies in social interaction*. Cambridge: Cambridge University Press
- Brennan, M. (1992). The effect of monetary incentives on mail survey response rates: new data. *Journal of the Market Research Society* 34, 2, pp. 173-177
- Brennan, M. and Hoek, J. (1992). The behaviour of respondents, nonrespondents and refusers across mail surveys. *Public Opinion Quarterly* 56, 4, pp. 530-535
- Brennan, M., Hoek, J. and Astridge, C. (1991). The effects of monetary incentives on the response rate and cost-effectiveness of a mail survey. *Journal of the Market Research Society* 33, 3, pp. 229-241
- Church, A. (1993). Estimating the effect of incentives on mail survey response rates: a meta-analysis. *Public Opinion Quarterly* 57, pp. 62-79
- Dillman, D. (1978). *Mail and Telephone Surveys. The Total Design Method*. New York: Wiley and Sons
- Eichner, K. and Habermehl, W. (1981). Predicting response rates to mailed questionnaires (Comment on Heberlein and Baumgartner, ASR, August 1978). *American Sociological Review* 46, pp. 361-363
- Fox, R. J., Crask, M. R. and Kim, J. (1988). Mail survey response rate. A meta-analysis of selected techniques for inducing response. *Public Opinion Quarterly* 52, pp. 467-491
- Gajraj, A., Faria, A. and Dickinson, J. (1990). A comparison of the effects of promised and provided lotteries, monetary and gift incentives on mail survey response rate, speed and cost. *Journal of the Market Research Society* 32, 1, pp. 141-162
- Goodstadt, M. S., Chung, L., Kronitz, R. and Cook, G. (1977). Mail survey response rates: their manipulation and impact. *Journal of Marketing Research* 14, pp. 391-395
- Goyder, J. (1994). An experiment with cash incentives on a personal interview survey. *Journal of the Market Research Society* 36, 4, pp. 360-366
- Grice, H.P. (1975). Logic and conversation. In: P. Cole and J.L. Morgan (eds.): *Syntax and semantics, 9: speech acts*, pp. 41-58. New York: Academic Press
- Hansen, R. (1980). A self-perception interpretation of the effect of monetary and nonmonetary incentives on mail survey respondent behavior. *Journal of Marketing Research* 17, pp. 77-83
- Harkness, J. (1996). The (Re)Presentation of Self in Everyday Questionnaires. Paper presented at the International Sociological Association Conference, Colchester, England
- Harkness, J. ISSP 1997. Work Orientations. ZUMA report on the German study. ZUMA. Mannheim (in preparation)

- Heberlein, T. and Baumgartner, R. (1981). The effectiveness of the Heberlein-Baumgartner models for predicting response rates to mailed questionnaires: European and U.S. examples (Reply to Eichner and Habermehl, ASR). *American Sociological Review* 46, pp. 363-367
- Hubbard, R. and Little, E. L. (1988). Promised contributions to charity and mail survey response rates: replication with extension. *Public Opinion Quarterly* 52, pp. 223-230
- Linsky, A. S. (1975). Stimulating responses to mailed questionnaires: a review. *Public Opinion Quarterly* 39, pp. 82-101
- McDaniel, S. and Jackson, R. W. (1984). Exploring the probabilistic incentive on mail survey research. *Proceedings of the American Marketing Association Summer Educators' Conference*. Bernhardt, K. et al. (ed.). Chicago, pp. 372-375
- Schwarz, N. (1996). *Cognition and Communication. Judgmental Biases, Research Methods, and the Logic of Conversation*. Mahwah: Erlbaum
- Wasmer, M., Koch, A., Harkness, J. and Gabler, S. (1996). *Konzeption und Durchführung der "Allgemeinen Bevölkerungsumfrage der Sozialwissenschaften" (ALLBUS) 1996*. Mannheim. ZUMA-Arbeitsbericht 96/08
- Yammarino, F., Skinner, St. and Childers, T. (1991). Understanding mail survey response behavior. A meta-analysis. *Public Opinion Quarterly* 55, pp. 613-639
- Yu, J. and Cooper, H. (1983). A qualitative review of research design effects on response rates to questionnaires. *Journal of Marketing Research* 20, pp. 36-44