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Measuring Interviewer Effects in SHARE Germany

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Abstract

Interviewer effects are found across all types of interviewer-mediated surveys crossing disciplines and countries. While studies describing interviewer effects are manifold, identifying characteristics explaining these effects has proven difficult. This paper proposes a conceptual framework of interviewer characteristics for explaining interviewer effects. The framework encompasses four dimensions of interviewer characteristics: general interviewer attitudes, interviewers' own behavior, interviewers' experience with measurements, and interviewers' expectations. An interviewer questionnaire based on this conceptual framework was implemented on the fourth wave of SHARE Germany in early 2011. An exploratory analysis of the interviewer data collected shows associations between the response and consent rates that interviewers expect to achieve and the other dimensions of interviewer characteristics.

Keywords

Interviewer characteristics, conceptual framework, unit nonresponse, item nonresponse, measurement error, interviewer questionnaire, paradata

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1. Introduction

In all interviewer-mediated surveys interviewers play a crucial role during the entire data collection process. They make contact with and gain cooperation from the sample unit, ask survey questions, conduct measurements, record answers and measures, and maintain respondents' motivation throughout the interview (Schaeffer et al. 2010). As such, the job of an interviewer encompasses a diversity of roles and requires a variety of skills. Especially with the rise of computer-assisted interviewing, which permits the collection of even more complex data, a well-trained staff of interviewers has become indispensable.

Yet often, especially in large-scale data collections, researchers are far removed from the field (with survey agencies and their operations departments acting as intermediaries) and have little information about how the concepts they aim to measure are actually put into practice (Koch et al 2009). At the end of a long chain of actors we receive datasets with hundreds of variables, but the data production is still a blackbox.

To reduce variation in the data collection processes, surveys are conducted through standardized interviews. The aim of standardized interviews is to measure the same concept in the same way across all sample units. However, standardized interviewing has limitations.

First, not all components of the data collection process can be completely standardized. For example, during the contacting process interviewers are typically allowed to employ those methods that they consider most productive; during the cooperation process survey methodologists even recommend a tailored rather than a fully scripted introduction (Morton-Williams 1993; Houtkoop-Steenstra and van den Berg 2000). Many recent methods of collecting data also necessitate interviewers to tailor their interaction with the respondents, for example when collecting life-history data through calendar methods (Sayles et al. 2010).

Second, in standardized surveys interviewers need to be well-trained to ensure that the data of all sample units are collected in a comparative way. In survey reality, however, no matter how professional the survey and how well-trained the interviewers, we find interviewer effects in the nonresponse process and the survey data.

The literature *describing* interviewer effects on various aspects of the survey process is substantial (for an overview see Schaeffer et al. 2010, ch. 13). However, few studies have succeeded in *explaining* the interviewer effects found. One strand of research into explaining interviewer effects has been facilitated by collecting interviewer characteristics through surveys of the interviewers employed on a study.

This paper presents the conceptual framework of a new international interviewer questionnaire developed to explain interviewer effects on unit nonresponse, non-consent to the collection of biomarkers, non-consent to record linkage and item nonresponse on income in wave 4 of the Survey of Health, Ageing and Retirement in Europe (SHARE) in Germany. While tailored to SHARE Germany the questionnaire was developed in cooperation with researchers across various survey projects. Thus, the questionnaire will be relevant to survey projects across countries and disciplines.

This paper consists of three parts. First, a theoretical background and literature review outlines the main aspects of the data collection process affected by interviewer effects (section 2). The subsequent conceptual framework constitutes the core of the paper, where the

motivation for surveying various interviewer characteristics is laid out (section 3). Finally, section 4 presents initial findings from the interviewer survey conducted in SHARE Germany.

2. Theoretical background and literature

An interviewer effect is typically estimated by an intraclass correlation coefficient (ICC), i.e. the ratio of the interviewer variance to the sum of all variances in the model (e.g. Anderson and Aitkin 1985, Groves and Magilavy 1986). The ICC allows us to estimate to which extent the variation across respondents in the survey estimate is clustered within the interviewers conducting the survey.

Three main types of interviewer effects can be distinguished: interviewer effects on the unit nonresponse process, on item nonresponse and on the actual measurement (Figure 1).



Figure 1: Types of interviewer effects in surveys

2.1. Interviewer effects on unit nonresponse

When considering the unit nonresponse process we find that interviewers are differentially successful at recruiting sample units leading to differential unit response rates. A growing literature has examined the role of the interviewer in the nonresponse process, and attention has been paid to interviewer attributes, such as experience (Durban and Stuart 1951; Couper and Groves 1992; Singer et al. 1983; Snijkers et al. 1999; Lipps and Pollien 2011), interviewer skills (Morton-Williams 1993; Campanelli et al. 1997), interviewer-respondent interaction (Groves and Couper 1998), as well as survey design characteristics, such as interviewer burden (Japec 2008) and interviewer payment (de Heer 1999; Durrant et al. 2010).

To explain differential response rates between interviewers and why more experienced interviewers achieve higher response rates, survey methodologists have examined interviewer attitudes and motivation (Campanelli et al. 1997; Groves and Couper 1998; Hox and de Leeuw 2002; Durrant et al. 2010). This strand of research was inspired by the work of

Lehtonen (1996), who developed a short interviewer attitudes scale and showed that attitudes correlate with attained response rates. Another line of studies focuses on interviewer behavior and interviewer-respondent interaction (Couper and Groves 1992; Campanelli et al. 1997; Groves and Couper 1998; Snijkers et al. 1999). This started with the pioneering work of Morton-Williams (1993), who analyzed tape recordings of survey introductions and identified successful interviewer strategies, such as, using professional and social skills, and adapting these to the doorstep situation.

2.2. Interviewer effects on item nonresponse

In addition, interviewers have an influence on item nonresponse, i.e. on the respondents' willingness to answer each question in the survey and on their consent to providing additional information. The consent to the collection of additional information can be diverse; typical examples are consent to record linkage (Lessof 2009; Calderwood and Lessof 2009; Sakshaug et al. 2010; Sala et al. 2010) and consent to the collection of biomarkers in health surveys (Sakshaug et al. 2009).

Traditionally, the literature on interviewer effects on item response rates describes a clustering effect of item nonresponse within interviewers and tries to explain these interviewer effects by the demographic characteristics of the interviewer (Singer et al. 1983). Another strand of research looks into collecting additional information about the interviewers, for example on their expectations, by means of interviewer questionnaires (Singer and Kohnke-Aguirre 1979; Singer et al. 1983). More recently researchers have drawn on paradata (Couper and Lyberg 2005), i.e. data describing the data collection process such as interviewer workload and length of interview, to explain interviewer effects on item nonresponse (Olson and Peytchev 2007). There is also a growing literature on consent to collecting additional data from respondents, such as consent to record linkage and to collecting biomarkers (Jenkins et al. 2006; Jenkins et al. 2008; Sakshaug et al. 2009; Sakshaug et al. 2010); analyses of interviewer effects on consent, however, are scarce (c.f. Sala et al. 2010; Korbmacher and Schröder 2010).

2.3. Interviewer effects on measurement

Interviewers can through their observable characteristics and their actions influence the measurement itself, i.e. which answer a respondent provides. Theory related to this third type of interviewer effect typically stems from the literature on respondents' cognitive processes when answering survey questions (Tourangeau et al. 2000).

The process of answering a survey question is complex and iterates through various stages (Cannell et al. 1981; Tourangeau et al. 2000). First, the respondent needs to understand the survey question and recognize the meaning of it. Here interviewers play a crucial role: Do they read out the complete question or take short-cuts? Do they read the interviewer instructions and provide information accordingly? Do they reformulate a question, if the respondent does not understand it? That is, do they follow the standardized interview even if the survey question is not understood by the respondent? In the second and third stages the respondent searches their memory and retrieves the information requested, and subsequently inspects it for completeness and relevance. The interviewer might support this process, hinder it or act as a neutral observant. In studies collecting life-history information, for example, the

interviewer plays a role in this process by providing anchor events that ease the respondent burden in temporally placing events in their life. The fourth stage involves mapping the retrieved answer on the answer options provided in the questionnaire. Again the interviewer might consciously or subconsciously influence the measurement. If in doubt in which category to place their answer, respondents might ask the interviewer for help. Interviewers' reaction to this request thus influences the answer recorded.

Since survey questions differ widely in content and structure and since interviewer effects are estimate-specific, interviewer effects can be different for different questions and topics (Schaeffer et al. 2010) and cannot be generalized for all measurements within a survey. "An interviewer characteristic is most likely to affect responses to questions that make the characteristics salient or relevant in the interaction, activate stereotypes, or evoke the respondent's concerns with affiliation, relative status, or deference. Effects do not always appear for such questions, however, and sometimes appear for questions without these features" (Schaeffer et al. 2010, p. 451).

Covering all of these different types of interviewer effects on measurement goes beyond the scope of the conceptual framework developed in this paper. Instead, we focus on identifying interviewer characteristics associated with interviewer effects on unit and item nonresponse.

3. Designing comparative measures of interviewer characteristics

The conceptual framework underlying the design of the SHARE interviewer questionnaire was influenced by two separate strands of research: An international interviewer questionnaire implemented on the European Social Survey (ESS) and interviewer effects found in methodological research on SHARE. They are introduced in the following.

3.1. Findings from a previous international interviewer survey

In 2002 de Leeuw and Hox (2009) designed a standardized international interviewer questionnaire to measure interviewer effects on unit nonresponse in the ESS. The questionnaire was implemented in seven ESS countries and data from all but one country could be successfully linked to the ESS contact data describing the processes leading to unit nonresponse.¹ The motivation for implementing such a survey was that "while there are a few studies investigating the influence of interviewers on nonresponse, they are typically restricted to analyses within a single country. However, interviewer training, contacting and cooperation strategies as well as survey climates differ across countries thus influencing differential nonresponse processes and possibly nonresponse biases" (Blom et al. forthcoming). The interviewer questionnaire focused on measuring interviewers' attitudes towards various fieldwork strategies and their avowed doorstep behavior.

Multi-level analyses of the combined contact data and interviewer data found the largest variance components at the level of the sample unit (more than 60%). For the model of contact, variance at the interviewer level (27%) and at the country level (10%) was still

¹ Only in Sweden the data could not be linked due to national data protection regulations.

considerable. For the models of cooperation, 30% of the variance was found at the country level and only 8% at the interviewer level. However, in line with similar studies (Durrant et al. 2010; Hox and de Leeuw 2002), the authors found that the predictive power of the variables collected on the interviewer questionnaire was low and explained only part of the observed variance. In addition, the questionnaire was limited to explaining interviewer effects on unit nonresponse.

3.2. Interviewer effects in SHARE

SHARE is a multidisciplinary and cross-national panel survey on the health, socio-economic status and social and family networks of the population aged 50 and older. In order to depict changes over time the same individuals are re-interviewed bi-annually. Since 2004 over 2000 interviewers have conducted face-to-face interviews with more than 45000 individuals across 20 countries.

As is to be expected with any large survey project, interviewer effects have been found in the SHARE data across various different types of analyses. Most notably two research projects have documented interviewer effects on the contact part of unit nonresponse (Lipps and Benson 2005) and on consent to record linkage in the German SHARE study (Korbmacher and Schröder 2010).

In an analysis of the processes leading to contact in the eleven countries participating in wave 1 of SHARE Lipps and Benson (2005) found no "significant country effects throughout [their] analyses, once the interviewer effects are controlled [for]. ... Throughout the analysis, interviewer effects persist. That is, there are interviewers who more likely find ways to obtain initial contact than other interviewers, even when controlling for when and how the attempt is made" (Lipps and Benson 2005, p. 3913). This dominance of interviewer effects over country effects is in line with the findings by Blom et al. (forthcoming) and like them Lipps and Benson (2005) are unable to explain the interviewer effects found.

Korbmacher and Schröder (2010) analyzed the processes leading to consent to record linkage in SHARE Germany in wave 3. They found significant interviewer fixed effects in their model of consent after controlling for respondent characteristics and characteristics of the interview process (interview duration, item nonresponse, incentives, interviewer assessments of respondents' willingness to answer and whether other people were present during the interview). They concluded "that the decision-making process is mainly influenced by the interview situation which in turn is driven by the interviewer-respondent interaction." (Korbmacher and Schröder 2010, p.6).

In wave 4 SHARE Germany refreshes its panel sample with a new sample of approximately 4000 respondents to an expected total sample size of 6000 respondents. Within the refresher sample four methodological experiments are conducted: on unconditional monetary incentives, on additional mid-fieldwork training of interviewers (both described by Schröder and Blom 2010), on consent to linkage of the SHARE data with individual records of the German Pension Fund and on consent to the collection of micro-invasive biomarkers (both described in Schaan and Korbmacher forthcoming). These methodological experiments raised questions about interviewers' influence on the data collection process.

Given the interviewer effects documented in the literature and the methodological experiments conducted in SHARE Germany wave 4, the objective of the interviewer

questionnaire was to collect interviewer characteristics that explain five groups of interviewer effects: interviewer effects (1) on unit nonresponse in general, (2) on unit nonresponse across the four incentives conditions of the incentives experiment, (3) on consent to the collection of four types of biomarkers, (4) on consent to record linkage, and (5) on income nonresponse (Figure 2).



Figure 2: Interviewer effects examined in SHARE Germany wave 4

3.3. Conceptual framework of the SHARE interviewer questionnaire

The conceptual framework presented in the following is derived from our own experiences at interviewer trainings on a diversity of studies, from findings in previous analyses of interviewer effects and from consultations with methodological experts on various European and US surveys. When aiming to explain interviewer effects by means of characteristics collected in an interviewer survey, the underlying assumption is (1) that interviewers

differentially impact on the data collection process, (2) that this differential impact is related to their – conscious and subconscious – appearance and actions, and (3) that these actions can be explained by characteristics collected in an interviewer survey.

The conceptual framework identifies four sets of interviewer characteristics that might explain interviewers' differential appearance and actions: general interviewer attitudes, interviewer behavior, interviewer experiences, and interviewer expectations.

Table 1 displays the four dimensions measured in the interviewer questionnaire (rows) and the interviewer effects they aim to explain (columns). In addition, the interviewer survey collects general interviewer demographics and measures of interviewing experience. The full interviewer questionnaire implemented in SHARE Germany can be found in Appendix A.

General interviewer attitudes

Interviewers who are good at making contact and gaining cooperation from the sample unit are usually good at tailoring their approach to the situation they find at the visited address (Morton-Williams 1993). However, tailoring takes more effort than repeating the same routine with each sample unit. The extent to which interviewers make the effort of tailoring their approach might be related to their general attitudes towards their job as interviewers and towards life in general. In addition, interviewers' own concerns about data protection and their trust in other people might shape the way they approach sample units and ask their respondents for sensitive information.

The first dimension of general interviewer attitudes in the conceptual framework covers these aspects. Some of the general interviewer attitudes collected in the interviewer questionnaire are related to the questions asked on the ESS interviewer questionnaire (de Leeuw and Hox 2009). However, in addition to questions on the contacting and cooperation processes, i.e. unit nonresponse, the SHARE interviewer questionnaire also collects information that might be associated with item nonresponse and non-consent. The general attitudes covered in the questionnaire are reasons for being an interviewer (Q3), attitudes towards how to best achieve unit response (Q5), and general questions regarding trust and data protection concerns (Q6, Q11 and Q12) that might be particularly effective in explaining non-consent and item nonresponse on income.

Interviewers' own behavior

The maxim 'do as you would be done by' runs as a common theme through many cultures. Therefore, it is not difficult to imagine that survey requests, which an interviewer would themselves not answer to, are difficult to sell to respondents. The second dimension of the conceptual framework thus assumes that the way interviewers behave or would behave, if faced with a similar situation as respondent, influences the way they interact with their respondents. If interviewers participate in surveys themselves and supply all of the information asked from them, they are likely to be better at eliciting such information from their respondents.

A series of questions in the interviewer questionnaire covers interviewers' own behavior. These questions for example cover whether interviewers have taken part in surveys and, if so, what kind of surveys these were and whether they received incentives (Q8, Q9 and

	Unit nonresponse	Unit nonresponse (incentives)	Consent to biomarker collection	Consent to record linkage	Item nonresponse (income)
General attitudes	Q3: reasons for being an interviewer Q5: how to achieve response Q6, Q11, Q12: trust, data protection concerns		Q6, Q11, Q12: trust, data protection concerns	Q6, Q11, Q12: trust, data protection concerns	Q6, Q11, Q12: trust, data protection concerns
Own behavior	Q8, Q9: own survey participation Q27: use of internet social networks/online banking	Q10: incentives received	Q22: consent to biomarkers, hypothetical Q24: blood donation	Q13: data disclosure, hypothetical Q14, Q16: data linkage, hypothetical Q17: pension records cleared Q27: use of internet social networks/online banking	Q27: use of internet social networks/online banking Q34: income response
Experience with measurements	Q4: conducting standardized interviews Q18: SHARE experience	Q18: SHARE experience	Q23: bloodspots		Q18: SHARE experience
Expectations	Q19: effect of incentives on unit response	Q19: effect of incentives on unit response	Q21: consent to biomarker	Q15: consent to data linkage	Q20: income response

Table 1: Conceptual framework of interviewer questionnaire

Q10). Along a more general line, we examine how easily interviewers divulge information about themselves in their daily lives by asking about their membership in social networks like facebook and their use of online banking (Q27). The questionnaire also asks them about their income (Q34), to see whether item nonresponse on income on the interviewer questionnaire is correlated with item nonresponse among respondents to the SHARE survey. For measures of consent to the collection of biomarkers and consent to record linkage we inspect interviewers' actions in similar situations. The questionnaire asks whether the interviewer donates blood (Q24) and whether they have cleared their pension records ("Kontenklärung"), a process each citizen is asked to go through to ensure that the pension records the state holds are correct (Q17). Finally, the questionnaire contains hypothetical questions on whether interviewers would disclose sensitive information (Q13), consent to record linkage (Q14 and Q16) and consent to the collection of biomarkers (Q22) if asked in an interview situation.

Interviewers' experience with measurements

Interviewers' familiarity with different types of surveys and measurements may influence their confidence with conducting these. This, in turn, may shape the professionalism with which they interact with respondents. Interviewer training levels out some of the differences in experience with measurements; however, only up to a certain degree. If interviewers have previously worked on SHARE they have more background knowledge about the content of the study, which is knowledge they may employ in their introduction. Likewise, if interviewers have experience with pricking a small needle into someone's finger for collecting blood spots in blood sugar tests, they are likely to feel more confident in collecting dried blood spots for biomarkers and to portray this confidence during the interview. The SHARE interviewers are diverse in the experiences they have gathered on their job and in their life in general. Some wave 4 SHARE interviewers have worked on all of the previous SHARE waves and are well-used to the type of sample and the survey instrument. Others have conducted surveys that cover similar aspects as SHARE does.

The third dimension of the interviewer questionnaire, therefore, investigates interviewers' experiences with conducting standardized interviews (Q4), with SHARE (Q18), and with conducting blood sugar tests for diabetics (Q23).

Interviewers' expectations of unit response, consent and item response rates

Anecdotal evidence from interviewer trainings suggests that interviewers' perceptions of the viability of a survey are related to fieldwork outcomes. While implying a causal effect of interviewers' expectations on fieldwork outcomes would be far-fetched, in the context of explaining interviewer effects empirically testing whether interviewers who are confident about the success of a survey are also more likely to reach high response rates is informative.

The final dimension in the conceptual framework covers interviewers' expectations of unit nonresponse rates, consent rates and item nonresponse rates. The survey asks interviewers what response and consent rates they expect for the different incentive groups (Q19), for the various biomarker measurements (Q21), for consent to record linkage (Q15), and for the survey questions on income (Q20).

4. Findings from the SHARE interviewer survey

After some initial development work on the conceptual framework of an interviewer questionnaire a group of survey methodologists met at the 2010 International Workshop on Household Survey Nonresponse in Nuremberg, Germany, to discuss the design and content of a new international interviewer questionnaire and foster research cooperation on interviewer effects across surveys and countries. Only half a year later versions of the international interviewer questionnaire have been implemented on the German PASS study (Panel Arbeitsmarkt und soziale Sicherung) and in several SHARE countries. Various other studies have shown an interest in implementing similar questionnaires in future data collections.

The SHARE Germany interviewer survey was conducted at the end of the two interviewer training sessions in January and April 2011. In total, 197 interviewers were trained. Participation in the interviewer survey was voluntary and interviewers did not receive any incentive for participating. 163 interviewers completed the questionnaire, yielding an 83% response rate. There was a small amount of item nonresponse and answers that were not codeable. Data collection for the 6000 SHARE Germany interviews will continue until late summer and data cleaning processes take time. Thus, the interviewer data cannot yet be linked to the SHARE contact data or the main interview data.



Expected response rates

Figure 3: Framework of exploratory analysis

As described above, the interviewer questionnaire collects data about interviewers' expectations for the response and consent rates that they will attain in SHARE wave 4. The purpose of these questions is to examine a suspected association between interviewers' expectations and their actual performance. As described above, we assume that interviewers

will be quite good at predicting the response rates that they will achieve on SHARE. We build on this assumption in the following explorative analyses, where we map interviewers' general attitudes, behavior and experience with specific measurements on the response rates that they expect to achieve (see Figure 3).

4.1. Expected response rates under four incentives conditions

During training the interviewers were briefed about the incentives conditions in the SHARE refresher sample: All respondents are promised an incentive of $\notin 10$ in cash upon completion of the interview. Furthermore, persons sampled into the refresher sample² may be part of an experiment with four treatment groups of additional unconditional incentives ($\notin 0$, $\notin 10$, $\notin 20$, $\notin 40$) sent together with the advance letter. All incentives are announced in the advance letter.

In the questionnaire interviewers were asked about their expectations of their unit response rate for each of experimental conditions. The results show that interviewers differed substantially regarding their confidence in achieving high response rates (Table 2). When no unconditional incentive is sent with the advance letter and the sample units are merely promised $10 \in$ after completing the interview, the SHARE interviewers on average expected unit response rate of 43%. However, the standard deviation is large and some interviewers expected a response rate of only 5% while others expected to achieve 75% (one interviewer even 85%).

	Expected unit response rates						
	No unconditional incentive	10€ unconditional incentive	20€ unconditional incentive	40€ unconditional incentive			
	%	%	%	%			
Mean	42.9	52.4	58.9	66.3			
Standard deviation	19.0	20.3	21.3	22.3			
N (codeable answers)	156	155	155	153			

Table 2: Mean expected unit response rate under four unconditional incentives settings

Note: All respondents receive an additional conditional €10 incentive.

Interestingly, while the researchers designing the incentives experiments were concerned that the 40 \in unconditional incentive might be considered too high (and regarded as a bribe), interviewers were confident that the higher the value of the incentive the more successful they would be in recruiting respondents. According to the interviewers' expectations the 40 \in unconditional household incentive paired with a 10 \in conditional individual incentive would on average yield a 23% increase in the unit response rate

² SHARE Germany samples persons from community registers. The sampled person plus their spouse or partner living in the same household are eligible for the interview. Prior to fieldwork researchers, the survey agency, and the interviewers have no knowledge about the composition of the household.

compared to a setting where no unconditional incentive is sent and respondents are merely promised a conditional incentive of $10 \in$.

In exploratory bivariate regressions of indicators of interviewers' general attitudes, their own experiences and their experience with various types of measurements on their expected unit response rate (without unconditional incentives), we found three measures that were significant at a 10% level. Interviewers who did their job because they were interested in learning about the lives of other people expected significantly higher unit response rates (b=1.71 and p=0.06) compared to those for whom this aspect did not play an important role. Likewise, interviewers who found it important to work on research that is relevant to society expected higher response rates (b=1.87 and p=0.07). Finally, interviewers who used social networks such as facebook expected significantly lower response rates (b=-6.03 and p=0.06) compared to interviewers who do not use social networks online. The latter finding is contrary to our expectations; future multivariate analyses of the combined contact, survey and interviewer data might uncover the reasons for this.

4.2. Expected consent rates for the collection of biomarkers

In wave 4 of the SHARE study Germany trials the collection of micro-invasive biomarkers within the standard survey setting, i.e. by interviewers. All SHARE Germany interviewers were trained on collecting biomarkers, i.e. blood pressure, height and waist circumference, as well as dried blood spots which are sent to a laboratory for analyses of health indicators after the interview. Each measurement necessitates explicit consent from the respondent.

The interviewer questionnaire showed that overall interviewers were quite positive about the consent rates for these new measurements. For measuring blood pressure, height and waist circumference they on average expected consent rates of 84%, 88% and 81%, respectively (Table 3). The standard deviations for these consent rates are considerably lower than for the unit response rates, possibly indicating that interviewers know better what to expect during the interview than during the recruitment phase. Since the collection of dried blood spots is the most controversial biomarker measure, the mean expected consent rate was only 58% with a standard deviation of 18 percentage points.

	Expected consent rates						
	Blood pressure	Height	Waist circumference	Blood spots			
	%	%	%	%			
Mean	83.6	87.7	80.6	57.7			
Standard deviation	13.6	11.5	13.1	18.1			
N (codeable answers)	160	160	159	159			

Table 3: Mean expected consent rates (biomarkers)

Consent to the collection of dried blood spots is also the most interesting biomarker with respect to interviewer effects. Therefore, the exploratory bivariate regressions were conducted on consent to the collection of dried blood spots. The explanatory variables of interviewers' general attitudes, own experiences and their experience included in each bivariate model are listed in the conceptual framework (Table 1 above). Interestingly, interviewers' trust in people was significantly and positively related to the expected blood spots consent rate (b=1.29 and p=0.07). Moreover, interviewers who said that they themselves would consent to having blood spots taken during an interview expected significantly higher consent rates (b=9.27 and p=0.01) in SHARE.

4.3. Expected consent rates for record linkage

In wave 3, SHARE Germany first piloted linking the survey data to individual records of the German Pension Fund. For directly linking survey data with administrative records respondents need to supply their social security number (or information from which this number may be constructed) and give written consent by signing a consent form. In wave 4, SHARE Germany asks respondents of the refresher sample for written consent to record linkage.

The expected consent rate for record linkage is with 59% only slightly higher than the expected consent rate for the collection of biomarkers (Table 4). The standard deviation of 21 percentage points shows that interviewers vary a lot in their expectations for this measure.

Expected record linkage conse					
	%				
Mean	59.2				
Standard deviation	21.2				
N (codeable answers)	158				

Table 4: Mean expected consent rate (record linkage)

The bivariate regression of general attitudes, interviewer behavior and experience with measurements on expected record linkage consent rates yields some highly significant associations. Interviewers who would reveal their social security number (b=-3.86 and p=0.01), their telephone number (b=-4.33 and p=0.01), their private address (b=-4.41 and p=0.02) and the address of their health insurer (b=-3.05 and p=0.07) when asked for in a survey by the Federal Statistical Office expect a significantly higher consent rate than interviewers who would not supply this information. Similarly, interviewers who would consent to having their survey data linked to their credit history (b=-3.41 and p=0.06), to their employment history (b=-8.45 and p=0.00), to the medical records held by their doctors (b=-3.17 and p=0.04), to the medical records held by their health insurer (b=-5.01 and p=0.00), and to records about their social benefits (b=-6.21 and p=0.00) expect to achieve higher record linkage consent rates in SHARE. With these results it is not surprising that interviewers who as participants in the SHARE study would agree to having their survey data linked to the German Pension Fund also expect higher consent

rates (b=14.9 and p=0.00). In line with the findings on expected unit response rates reported above, interviewers who are part of social networks on the Internet expect lower record linkage consent rates (b=-9.73 and p=0.01).

4.4. Expected item response rates for income

Item nonresponse to income measures is a frequent concern in social and economic surveys. Therefore, the study pays special attention to interviewer effects on income item nonresponse. On average interviewers expected 70% response to questions about income in SHARE with a standard deviation of 19 percentage points (Table 5).

	Expected income response rate
	%
Mean	69.7
Standard deviation	19.3
N (codeable answers)	158

Table 5: Mean expected income response rate

In the bivariate regression analyses interviewers' use of social networks like facebook is also associated with a lower expected income response rates (b=9.73 and p=0.01). And encouragingly, interviewers who worked on earlier waves of SHARE expected significantly higher item response rates on income questions than interviewers who are new to the study (b=11.00 and p=0.01).

5. Discussion and conclusion

This paper looks into interviewer effects found in survey data collections. Interviewer effects are found across all types of interviewer-mediated surveys crossing disciplines and countries. While studies *describing* interviewer effects are manifold, identifying characteristics *explaining* these interviewer effects has proven difficult.

In this paper we propose a conceptual framework of measuring interviewer characteristics for explaining interviewer effects on unit nonresponse, consent to the collection of biomarkers, consent to record linkage, and item nonresponse on income measures. The conceptual framework encompasses four dimensions of interviewer characteristics:

- *General interviewer attitudes* that might shape the way interviewers approach sample units and ask their respondents for sensitive information, such as attitudes towards their job as interviewers, concerns about data protection and trust in other people.
- *Interviewers' own behavior* and hypothetical behavior when faced with survey requests or similar measurements.

- *Interviewers' experience with measurements*, for example, experience with conducting specific surveys or the collection of specific measurements like biomarkers or consent to record linkage.
- *Interviewers' expectations* about the unit response, consent, and item response rates they will achieve on a given survey.

This conceptual framework formed the basis of an interviewer questionnaire implemented during the interviewer trainings in the fourth wave of SHARE Germany in early 2011. Exploratory analyses of the interviewer data collected show associations between the response and consent rates the interviewer expect to achieve in SHARE and the other dimensions in the interviewer characteristics collected. All but one set of significant associations found in the data confirm the theories behind the construction of the questionnaire. However, contrary to expectations, interviewers who are members of social networks on the internet expect to achieve lower response and consent rates on SHARE.

The main purpose of this paper was to present a conceptual framework of an interviewer questionnaire designed for explaining interviewer effects in SHARE Germany and across countries and surveys. The theory, conceptual framework, and findings presented in this paper are merely a starting point of analyses on interviewer effects. Once fieldwork and the data cleaning process are completed, the interviewer data can be linked with contact and survey data allowing a multitude of analyses into interviewer effects in SHARE Germany. However, the exploratory analyses of the questionnaire data have already shown interesting associations between interviewer expectations about response and consent rates and other dimensions of interviewer characteristics. This allows a glimpse at the explanatory power of such interviewer data. In SHARE Germany we primarily aim to explain interviewer effects on the treatment groups of the various methodological experiments in the wave 4 refresher sample. However, parts of the interviewer questionnaire were also implemented in other SHARE countries.³ Cross-country analyses will allow insights into the relative importance of interviewer and country effects on unit and item nonresponse. It is also worth noting that the SHARE interviewer questionnaire was developed in close cooperation with survey methodologists on other survey projects in Europe and the US. Collaborative research into comparing factors associated with interviewer effects across different types of surveys is planned. This paper thus aims to contribute to the literature on interviewer effects by stimulating the development, collection, and analysis of new measures of interviewer characteristics to explain and ultimately adjust for interviewer effects in survey data.

³The international version of the SHARE interviewer questionnaire can be found in Appendix B. Countryspecific questions were not translated and therefore not included in the international version of questionnaire.

Literature

Anderson, D.A., and Aitkin, M. (1985). Variance Component Models with Binary Response: Interviewer Variability. *Journal of the Royal Statistical Society: Series B*, 47, 203-210.

Blom, A.G., de Leeuw, E.D., and Hox, J. (forthcoming 2011). Interviewer Effects on Nonresponse in the European Social Survey. *Journal of Official Statistics*.

Calderwood, L., and Lessof, C. (2009). Enhancing Longitudinal Surveys by Linking to Administrative Data. In *Methodology of Longitudinal Surveys*, ed. Lynn, P., pp 55-72. Chichester, UK, John Wiley & Sons.

Campanelli, P., Sturgis P., and Purdon, S. (1997). *Can You Hear Me Knocking? An Investigation into the Impact of Interviewers on Survey Response Rates*. London: Social and Community Planning Research.

Cannell, C.F., Miller, P.V., and Oksenberg, L. (1981). Research on Interviewing Techniques. *Sociological Methodology*, ed. Leinhardt, S., pp. 389–437. San Francisco: Jossey-Bass.

Couper, M.P., and Groves R.M. (1992). The Role of the Interviewer in Survey Participation. *Survey Methodology*, 18 (2), 263 -277.

Couper, M.P., and Lyberg, L. (2005). The Use of Paradata in Survey Research. *Proceedings* of the 55th Session of the International Statistical Institute (CD-ROM).

De Leeuw, E.D., and Hox, J. (2009). International Interviewer Questionnaire (IQUEST): Development and Scale Properties. Working Paper. Utrecht, Netherlands: Department of Methodology and Statistics, Utrecht University.

De Heer, W. (1999). International Response Trends: Results of an International Survey. *Journal of Official Statistics*, 15 (2), 129-142.

Durban, J., and Stuart, A. (1951). Differences in Response Rates of Experienced and Inexperienced Interviewers. *Journal of the Royal Statistical Society: Series A*, 114, 163-206.

Durrant, G.B., Groves, R.M., Staetsky, L., and Steele, F. (2010). Effects of Interviewer Attitudes and Behaviors on Refusal in Household Surveys. *Public Opinion Quarterly*, 74 (1), 1-36.

Groves, R.M., and Magilavy, L.J. (1986). Measuring and Explaining Interviewer Effects in Centralized Telephone Surveys. *Public Opinion Quarterly*, 50, 251–66.

Groves, R.M., and Couper, M.P. (1998). *Nonresponse in Household Interview Surveys*. New York: Wiley.

Houtkoop-Steenstra, H., and van den Berg, H. (2000). Effects of Introductions in Large-Scale Telephone Survey Interviews. *Sociological Methods and Research*, 28 (3), 251-280.

Hox, J.J. and de Leeuw, E.D. (2002). The Influence of Interviewers' Attitude and Behaviour on Household Survey Nonresponse: An International Comparison. In *Survey Nonresponse*, eds. Groves, R.M., Dillman, D.A., Eltinge J.L., and Little, R.J., pp. 103-118. New York: Wiley.

Japec, L. (2008). Interviewer Error and Interviewer Burden. In *Advances in Telephone Survey Methodology*, eds. Lepkowski, J.M., Tucker, C. Brick, J.M., de Leeuw, E.D. Japec, L., Lavrakas, P.J., Link, M.W., and Sangster, R.L., pp.187-211. Hoboken: Wiley.

Jenkins, S.P., Cappellari, L., Lynn, P., Jäckle, A., and Sala, E. (2006). Patterns of Consent: Evidence from a General Household Survey. *Journal of the Royal Statistical Society: Series A*, 169 (4), 701-722.

Jenkins, S.P., Lynn, P., Jäckle, A., and Sala, E. (2008). The Feasibility of Linking Household Survey and Administrative Record Data: New Evidence for Britain. *International Journal of Social Research Methodology*, 11 (1), 29-43.

Koch, A., Blom, A.G., Stoop, I and Kappelhof, J. (2009). Data Collection Quality Assurance in Cross-National Surveys at the Example of the ESS. *Methoden, Daten, Analysen – Zeitschrift für Empirische Sozialforschung*, 3(2), 219-247.

Korbmacher, J. and Schröder, M. (2010). Non-response when Linking Survey Data with Administrative Data. Paper presented at the 20th International Workshop on Household Nonresponse, Nuremberg, Germany.

Lehtonen, R. (1996). Interviewer Attitudes and Unit Nonresponse in Two Different Interview Schemes. In *International perspectives on nonresponse: Proceedings of the sixth International Workshop on Household Survey Nonresponse.*, ed. Laaksonen, S.. Helsinki: Statistics Finland.

Lessof, C. (2009). Ethical Issues in Longitudinal Surveys. In *Methodology of Longitudinal Surveys*, ed. Lynn, P., pp 55-72. Chichester, UK: John Wiley & Sons.

Lipps, O., and Benson, G. (2005). Cross-national Contact Strategies. *Proceedings of the Survey Research Methods Section of the American Statistical Association*, 3905-3914. Alexandria, VA: American Statistical Association.

Lipps, O., and Pollien, A. (2005). Effects of Interviewer Experience on Components of Nonresponse in the European Social Survey. *Field Methods*, 23(2), 156-172.

Morton-Williams, J. (1993). Interviewer Approaches. Aldershot: Dartmouth.

Olson, K., and Peytchev, A. (2007). Effect of Interviewer Experience on Interview Pace and Interviewer Attitudes. *Public Opinion Quarterly*, 71, 273-286.

Schaan, B., and Korbmacher, J. (forthcoming, 2011). Collection of Biomarkers and Linkage of Administrative Data in the "Survey of Health, Ageing and Retirement in Europe" (SHARE). *Proceedings of the 10th Conference on Health Survey Research Methods*.

Schaeffer, N.C., Dykema, J., and Maynard, D.W. (2010). Interviewers and Interviewing. In *Handbook of Survey Research*, eds. Marsden, P.V., and Wright, J.D., pp. 437-470. Binley, UK: Emerald.

Schröder, M., and Blom, A.G. (2010). Respondent Incentives, Interviewer Training, and Survey Participation. Poster presented at the 20th International Workshop on Household Survey Nonresponse, Nuremberg, Germany.

Sakshaug, J.W., Couper M.P., and Ofstedal, M.B. (2009). Characteristics of Physical Measurement Consent in a Population-Based Survey of Older Adults. *Medical Care*, 47 (12), 64-71.

Sakshaug, J.W., Couper M.P., Ofstedal, M.B., and Weir, D. (2010). Linking Longitudinal Survey and Administrative Records: Implications for Consent. Paper presented at the 2nd Panel Survey Methods Workshop, Mannheim, Germany.

Sala E., Burton, J., and Knies, G. (2010). Correlates of Obtaining Informed Consent to Data Linkage: Respondent, Interview and Interviewer Characteristics. *ISER Working Paper* 2010-28. Colchester: Essex University.

Sayles, H., Belli, R.F., and Serrano, E. (2010). Interviewer Variance Between Event History Calendar and Conventional Questionnaire Interviews. *Public Opinion Quarterly* 74 (1), 140-153.

Singer, E., and Kohnke-Aguirre, L. (1979). Interviewer Expectation Effects: A Replication and Extension. *Public Opinion Quarterly*, 43, 245-60.

Singer E., Frankel, M.R., and Glassman, M.B. (1983). The Effect of Interviewer Characteristics and Expectations on Response. *Public Opinion Quarterly*, 47, 84-95.

Snijkers, G., Hox, J.J., and De Leeuw, E.D. (1999). Interviewers' Tactics for Fighting Survey Nonresponse. *Journal of Official Statistics*, 15(2), 185-198. Reprinted in: David de Vaus (2002), Social Surveys, Part Eleven, Nonresponse Error. London: Sage, Benchmarks in Social Research Methods Series.

Tourangeau, R., Rips, L.J., and Rasinski, K. (2000). The Psychology of Survey Response. Cambridge: Cambridge University Press. Appendix A



"50+ in Europa"

Interviewer-Fragebogen

Sie als Interviewer spielen eine zentrale Rolle für den Erfolg unserer Studie 50+ in Europa. Daher möchten wir vom Mannheimer Forschungsinstitut Ökonomie und Demographischer Wandel (MEA) Sie, Ihre Einstellungen, Ihre Erfahrungen als erfolgreiche Interviewer sowie Ihre Einschätzungen bezüglich der Befragungssituation kennenlernen. Selbstverständlich ist die Teilnahme freiwillig. Sie helfen uns durch Ihre Teilnahme aber sehr, die Befragungssituation besser zu verstehen. Ihre Antworten dienen **nicht** zu einer Bewertung Ihrer Leistung und werden auch **nicht** an infas weitergeben. Weitere Informationen zum Datenschutz finden Sie im beigelegten Datenschutzblatt.

Bitte tragen Sie hier Ihre Interviewernummer ein!

Interviewer-Nr.: _____

Tätigkeit als Interviewer

1) Wie lange arbeiten Sie insgesamt als Interviewer/in?

Jahre und	

Monate

99 (weiß nicht)

99 (weiß nicht)

2) Wie viele Stunden pro Woche arbeiten Sie derzeit ungefähr als Interviewer/in?

Stunden

3) Es gibt unterschiedliche Beweggründe als Interviewer/in zu arbeiten: Wie wichtig sind Ihnen die folgenden Punkte?

Antworten Sie bitte in jeder Zeile anhand der folgenden Skala. Der Wert 1 bedeutet: überhaupt nicht wichtig, der Wert 7 bedeutet: sehr wichtig. Mit den Werten zwischen 1 und 7 können Sie Ihre Meinung abstufen.

	1= über nicht v	rhaupt vichtig	-			7= s wicl	ehr ntig	weiß nicht
Bezahlung		2	3	4	5	6	7	9
Interessante Tätigkeit		2	3	4	5	6	7	9
Gelegenheit unter die Leute zu kommen		2	3	4	5	6	7	9
Einblicke in die sozialen Lebensumstände anderer Menschen bekommen		2	3	4	5	6	7	9
Mitwirkung an wissenschaftlicher Forschung		 2	3	4	5	6	7	9
Mitwirkung an Forschung, die der Gesellschaft dient		2	3	4	5	6	7	9
Möglichkeit der freien Zeiteinteilung		2	3	4	5	6	7	9

4) Es folgen nun einige Fragen zu schwierigen Zielpersonen und Kontaktierungsversuchen. Wir möchten gerne von Ihnen wissen, wie Sie in den folgenden Situationen reagieren.

Die Aussage trifftauf mich zu.	voll und ganz	eher	eher nicht	über- haupt nicht	weiß nicht
Wenn der/die Befragte eine Frage nicht versteht, erkläre ich, was eigentlich mit der Frage gemeint ist.		2	3	4	9
Wenn der/die Befragte Schwierigkeiten mit einer Frage hat, helfe ich nicht, sondern lese den genauen Wortlaut der Frage noch mal vor.		2	3	4	9
Wenn ich merke, dass der/die Befragte Schwierigkeiten hat, mir zuzuhören, kürze ich lange Fragetexte ab.		2	3	4	9
Wenn ich merke, dass der/die Befragte Schwierigkeiten hat, die Frage zu verstehen, spreche ich langsamer.		2	3	4	9
Wenn ich merke, dass der/die Befragte es eilig hat, spreche ich schneller.		2	3	4	9
Wenn ich vom bisherigen Interviewverlauf her weiß, wie eine Antwort lauten wird, ergänze ich die Antwort.		2	3	4	9
Wenn ich mich an die Antworten aus vorangegangenen Wellen erinnere und sehe, dass sich nichts verändert hat, ergänze ich Antworten.		2	3	4	9
Wenn ich merke, dass der/die Befragte kein Hochdeutsch spricht, spreche ich auch im regionalen Dialekt.		2	3	4	9
Ich halte mich immer genau an die Intervieweranweisungen im Fragebogen, auch wenn ich sie nicht für sinnvoll erachte.		2	3	4	9

Antworten Sie bitte in jeder Zeile anhand der folgenden Skala!

5) Zielpersonen reagieren oft ganz unterschiedlich auf die Bitte, an einer Studie teilzunehmen: Manche sind spontan dazu bereit, andere sind sich unsicher oder verweigern sofort. Bitte nennen Sie uns zu den folgenden Aussagen Ihre Meinung als erfahrene/r Interviewer/in.

Ich stimme	voll und ganz zu	eher zu	eher nicht zu	über- haupt nicht zu	weiß nicht
Schwer motivierbare Zielpersonen sollten immer zur Teilnahme überredet werden.			□3	4	9
Mit genug Aufwand kann sogar die am schwersten motivierbare Zielperson zur Teilnahme überredet werden.		2	3	4	9
Eine Interviewer/in sollte die Privatsphäre der Zielpersonen respektieren.		2	3	4	9
Wenn eine Zielperson der Befragung ablehnend gegenübersteht, sollte eine Verweigerung akzeptiert werden.		2	3	4	9
Man sollte immer die Freiwilligkeit der Befragung hervorheben.		2	3	4	9
Es ist nicht sinnvoll, schwer motivierbare Zielpersonen wiederholt zu kontaktieren.		2	3	4	9
Wenn man sie zur rechten Zeit erwischt, werden die meisten Leute teilnehmen.		2	3	4	9
Befragte, die nur mit großem Aufwand zur Teilnahme überredet wurden, liefern keine zuverlässigen Antworten.		 ₂	3	4	9

Antworten Sie bitte in jeder Zeile anhand der folgenden Skala!

Allgemeine Einstellungen und Verhaltensweisen

6) Würden Sie ganz allgemein sagen, dass man den meisten Menschen vertrauen kann oder dass man im Umgang mit anderen Menschen nicht vorsichtig genug sein kann?

Bitte verwenden Sie die Skala von 0 bis 10, wobei 0 bedeutet, dass man nicht vorsichtig genug sein kann, und 10 bedeutet, dass man den meisten Menschen vertrauen kann. Mit den Werten dazwischen können Sie Ihre Meinung abstufen.

Man kann nicht vorsichtig genug sein.					→	M	an kann Mensche	den meisten n vertrauen.	weiß nicht		
)		2	3	4	6	7		9	□_ ₁₀	99

7) Was würden Sie sagen: Inwiefern trifft der jeweilige Satz auf Sie persönlich zu?

Die Aussage trifftauf mich zu.	voll und ganz	eher	eher nicht	über- haupt nicht	weiß nicht
Mein erster Eindruck von Menschen stellt sich für gewöhnlich als richtig heraus.		2	3	4	9
Ich bin mir unsicher in meinem Urteil.		 2	□3	4	9
Ich weiß genau, wieso ich etwas mag.		2	3	4	9
Ich sage nichts, wenn ich zu viel Wechselgeld zurück bekomme.			3	4	9
Ich bin ehrlich zu anderen.		2	3	4	9

Antworten Sie bitte in jeder Zeile anhand der folgenden Skala!

Sie als Zielperson

8) Wie häufig haben Sie in den letzten 5 Jahren selbst an einer Befragung als Befragte/r teilgenommen (diese Befragung nicht mitgezählt)?



9) Falls Sie schon mal an Befragungen teilgenommen haben, welcher Art waren diese Umfragen?

Bitte nur eine Antwort ankreuzen!	
Überwiegend wissenschaftliche Umfragen (z. B. Studien wie 50+ in Europa, Wahlstudien)	
Überwiegend kommerzielle Studien bzw. Marktforschung	
Ungefähr beides in gleichem Umfang	
Ich habe an noch keiner Befragung teilgenommen	

10) Haben Sie für die Teilnahme an diesen Studien eine Belohnung/Entschädigung bekommen?

Bitte nur eine Antwort ankreuzen!

Überwiegend Ja		Teils/teils	
Überwiegend Nein	2	Ich habe an noch keiner Befragung teilgenommen	

Datenschutz

11) Wie besorgt sind Sie um den Schutz Ihrer persönlichen Daten?

Bitte nur eine Antwort ankreuzen!

Sehr besorgt		
Ziemlich besorgt	2	
Ein wenig besorgt		
Gar nicht besorgt		9 (weiß nicht)

12) Wie besorgt sind Sie, dass Computer und andere Technologien verwendet werden, um in Ihre Privatsphäre einzudringen?

Bitte nur eine Antwort ankreuzen!

Sehr besorgt	
Ziemlich besorgt	
Ein wenig besorgt	
Gar nicht besorgt	4

9 (weiß nicht)

Was würden Sie tun?

Im Folgenden möchten wir Sie bitten, sich in verschiedene hypothetische Situationen hineinzuversetzen. Was würden Sie tun, wenn Sie in eine der folgenden Situationen kämen?

13) Sie nehmen als Befragte/r an einer Umfrage teil, die das Statistische Bundesamt durchführt. Im Rahmen dieser Umfrage werden Sie gebeten, die folgenden Angaben zu machen. Der/die Interviewer/in nennt Ihnen jeweils nachvollziehbare Gründe, wozu er/sie die Daten benötigt.

Wie wahrscheinlich ist es, dass Sie die folgenden Angaben machen?	sehr wahr- scheinlich	eher wahr- scheinlich	eher unwahr- scheinlich	sehr unwahr- scheinlich	weiß nicht
Ihre Sozialversicherungsnummer			□3	4	9
Ihren Geburtstag		2	3	4	9
Ihren Geburtsort			3	4	9
Ihre private Telefonnummer			3	4	9
Ihren vollständigen Namen		2	3	4	9
Den Mädchennamen Ihrer Mutter		2	3	4	9
Ihre Privatadresse		2	3	4	9
Ihre Kreditkartennummer		2	3	4	9
Name und Adresse Ihrer Krankenversicherung		2	3	4	9
Ihre Krankenversicherungsnummer		2	3	4	9

Antworten Sie bitte in jeder Zeile anhand der folgenden Skala!

14) In der gleichen Studie werden Sie um das Einverständnis gebeten, Ihre Befragungsdaten mit administrativen Daten zu verknüpfen. Wie wahrscheinlich ist es, dass Sie dem Statistischen Bundesamt Ihr Einverständnis geben würden, Ihre Antworten mit den folgenden Datenquellen zu verknüpfen?

	sehr wahr- scheinlich	eher wahr- scheinlich	eher unwahr- scheinlich	sehr unwahr- scheinlich	weiß nicht
Ihrem Einkommensteuerbescheid			□3	4	9
Ihren Schulden bzw. Krediten		2	3	4	9
Ihrer Erwerbshistorie, also Informationen über vergangene Zeiten der Erwerbstätigkeit und Arbeitslosigkeit		2	3	4	9
Ihren medizinischen Daten, die bei Ihren Ärzten vorliegen			3	4	9
Informationen zu Ihrer Krankenversicherung		 2	3	4	9
Informationen zu Sozialleistungsbezug wie Arbeitslosengeld oder Sozialhilfe			3	4	9
Informationen aus Ihren Schulakten (Zeugnisse etc.)		2	3	4	9

Antworten Sie bitte in jeder Zeile anhand der folgenden Skala!

15) infas fragt in einigen Umfragen nach dem Einverständnis der Befragten zur Verknüpfung ihrer Befragungsdaten mit Daten, die bei der Deutschen Rentenversicherung über sie vorliegen. Dabei handelt es sich zum Beispiel um zusätzliche Informationen zu vorausgegangenen Zeiten der Beschäftigung, der Arbeitslosigkeit und der Teilnahme an Maßnahmen während der Arbeitslosigkeit. Was glauben Sie, wie viele der Befragten (in Prozent), die Sie danach fragen, geben Ihnen ihr Einverständnis?

	%	999 (weiß nicht)		
16) Würden Sie als Befragter einer solchen Verknüpfung zustimmen?				

Ja L ₁ NeinL ₂	9 (weiß nicht)
--------------------------------------	----------------

17) Die Deutsche Rentenversicherung fordert alle Personen, die irgendwann einmal sozialversicherungspflichtig beschäftigt waren, auf, ihr Rentenversicherungskonto zu klären. Haben Sie selbst schon eine solche Kontenklärung durchgeführt?

Bitte nur eine Antwort ankreuzen!

Ja	
Noch nicht, ich wurde bisher noch nicht dazu aufgefordert.	2
Noch nicht, ich wurde aber schon dazu aufgefordert.	
Ich war nie sozialversicherungs- pflichtig beschäftigt.	4

Erwartungen für Welle 4 der Studie 50+ in Europa

18) Haben Sie bereits in früheren Erhebungen als Interviewer für die Studie 50+ in Europa gearbeitet?

Ja	L	1

19) Studien unterscheiden sich darin, ob und wie sie Zielpersonen für ihre Teilnahme belohnen. Stellen Sie sich nun bitte vor, dass Ihre Zielpersonen verschiedene Geldbeträge vorab und unabhängig von ihrer tatsächlichen Teilnahme zugeschickt bekommen.

Bitte geben Sie für jede Zeile Ihrer Erwartungen an!

Was erwarten Sie, wie viel Prozent Ihrer Zielpersonen werden dem Interview zustimmen, wenn	Erwartete Teilnahmebereitschaft in Prozent
die Zielpersonen vorab keine Belohnung bekommen, ihnen aber 10 € für die Teilnahme im Anschreiben angekündigt wird?	%
die Zielpersonen vorab eine Belohnung von 10 € in bar bekommen und ihnen 10 € für die Teilnahme im Anschreiben angekündigt wird?	%
die Zielpersonen vorab eine Belohnung von 20 € in bar bekommen und ihnen 10 € für die Teilnahme im Anschreiben angekündigt wird?	%
die Zielpersonen vorab eine Belohnung von 40 € in bar bekommen und ihnen 10 € für die Teilnahme im Anschreiben angekündigt wird?	%

20) In sozialwissenschaftlichen Studien wird sehr oft auch nach dem Einkommen der Befragten gefragt. Was denken Sie, wie viele Ihrer Befragten (in Prozent) in der Studie 50+ in Europa Auskunft über ihr Einkommen geben werden?



999 (weiß nicht)	
------------------	--

21) In der Studie 50+ in Europa werden Befragte gebeten, einigen physischen Messungen zuzustimmen, wie z. B. der des Blutdrucks, der Körpergröße und des Taillenumfangs sowie der Entnahme kleiner Blutstropfen.

Bitte geben Sie für jede Zeile Ihrer Erwartungen an!

Was glauben Sie, wie viel Prozent Ihrer Befragten werden den folgenden Messungen zustimmen?	Erwartete Zustimmung in Prozent
Messung des Blutdrucks	%
Messung der Körpergröße	%
Messung des Taillenumfangs	%
Entnahme von Blutstropfen	%

22) Stellen Sie sich bitte vor, dass Sie selbst Zielperson der Studie 50+ in Europa oder einer vergleichbaren wissenschaftlichen Studie sind. Welchen Messungen würden Sie selbst als Befragte/r zustimmen?

Bitte alles Zutreffende ankreuzen!

,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Messung des Blutdrucks	
Messung der Körpergröße	
Messung des Taillenumfangs	
Entnahme von Blutstropfen	 9 (weiß nic

23) Haben Sie persönliche Erfahrungen mit Blutzuckermessungen, entweder weil Sie selbst oder Personen in Ihrem Umfeld Diabetiker sind?

24) Spenden Sie Blut?

Bitte nur eine Antwoi	rt ankreuzen!		
Ja, regelmäßig		Nein, nicht mehr	
Ja, gelegentlich		Nein, ich habe noch nie Blut gespendet	

Persönliche Angaben

25) Sind Sie	männlich oder weib	lich?	
Männlich		Weiblich	
26) In welch Geburtsjahr:	em Jahr wurden Sie	geboren?	
27) Nutzen S	Sie soziale Netzwerk	e im Internet wi	ie Facebook, MySpace oder Twitter?
Ja .		Nein	2
28) Nutzen S	Sie das Internet für C	Online-Banking?	
Ja .		Nein	2
29) Besitzen	Sie die deutsche Sta	aatsangehörigke	eit?
Ja .		Nein	
30) Bitte geb	oen Sie an, ob Sie, Ih	re Mutter bzw.	Ihr Vater in Deutschland geboren wurden.
	Ja	Nein	
Sie selbst		2	9 (weiß nicht)

9 (weiß nicht)

9 (weiß nicht)

 \Box_1

Ihre Mutter

Ihr Vater

2

2

31) Üben Sie derzeit neben Ihrer Tätigkeit als Interviewer/in noch eine Erwerbstätigkeit aus? Sind Sie außerdem...

Bitte alles Zutreffende ankreuzen!

voll erwerbstätig		in Rente / Pension	
in Teilzeitbeschäftigung		in Elternzeit / Erziehungszeit	
geringfügig oder unregelmäßig erwerbstätig		Hausfrau / Hausmann	
in betrieblicher Ausbildung / Lehre oder Umschulung	4	Student/in	
arbeitslos		Sonstiges	
in Altersteilzeit mit Arbeitszeit Null		nichts davon	

32) Welchen Schulabschluss haben Sie?

Bitte nur den höchsten Schulabschluss ankreuzen!

Volks-/Hauptschulabschluss bzw. Polytechnische Oberschule mit Abschluss 8. oder 9. Klasse	
Mittlere Reife, Realschulabschluss bzw. Polytechnische Oberschule mit Abschluss 10. Klasse	2
Fachhochschulreife, Abitur (Hochschulreife) bzw. erweiterte Oberschule mit Abschluss 12. Klasse	
Fachhochschul-/ Hochschulabschluss	

33) Wie viele Personen leben zurzeit in Ihrem Haushalt?



34) Alles in allem, wie hoch war ungefähr Ihr durchschnittliches monatliches Haushaltseinkommen nach Abzug von Steuern im letzten Jahr?



Vielen Dank für Ihre Teilnahme!

Appendix B



SHARE "50+ in Europe"

Interviewer-Questionnaire

You as interviewer play a key role in the success of our SHARE study. Therefore, we from [COUNTRY'S INSTITUTION] want to get to know you; your attitudes, your experiences as a successful interviewer and your opinion concerning the interview situation. Your participation is of course voluntary. However, with your participation you help us immensely in better understanding the interview situation. Your answers do **not** serve to an assessment of your performance and will **not** be passed down to [SURVEY ORGANISATION]. [FURTHER INFORMATION ABOUT WHAT HAPPENS TO YOUR DATA YOU WILL FIND IN THE ENCLOSED DATA PROTECTION LEAFLET.]

Please fill in your interviewer-number!

Interviewer-number: _____

Job as an interviewer

1) How long in total have you been working as an interviewer?

years and	mont

onths

99 (don't know)

2) How many hours a week do you currently approximately work as an interviewer?



99 (don't know)

3) There are different reasons for working as an interviewer. How important are the following aspects to you?

Please provide an answer in each row using the following scale. Value 1 means: not important at all, value 7 means: very important. With the values between 1 and 7 you can grade your opinion.

	1= not imp at all	oortant	+			7= v impo	very rtant	don't know
Payment		2	3	4	5	6	7	9
Interesting work		2	3	4	5	6	7	9
Opportunity to interact with people		2	3	4	5	6	7	9
Gaining insight into other people's social circumstances		2	3	4	5	6	7	9
Involvement in scientific research		2	3	4	5	6	7	9
Involvement in research that serves society		2	3	4	5	6	7	9
Possibility to determine own working hours		2	3	4	5	6	7	9

4) Below follows a series of statements about difficult respondents and contact attempts. We would like to know from you, how you react in the following situations.

The statement applies to me	perfectly	some- what	not really	not at all	don't know
If the respondent doesn't understand a question, I explain what is actually meant with the question.		2	3	4	9
If the respondent has difficulties with a question, I don't help, but read out the exact wording again.		2	3	4	9
If I notice that the respondent has difficulties listening to me, I shorten long question texts.		2	3	4	9
If I notice that the respondent has difficulties understanding the question, I speak more slowly.		2	3	4	9
If I notice that the respondent is in a hurry, I speak faster.		2	3	4	9
If I know from the course of the interview what an answer will be, I complete the answer myself.		2	3	4	9
If I remember answers from previous waves and notice that nothing has changed, I complete answers myself.		2	3	4	9
If I notice that the respondent doesn't speak [FORMAL ENGLISH – COUNTRY EQUIVALENT], I also speak regional dialect.		2	3	4	9
I always exactly stick to the interviewer instructions, even if I don't consider them sensible.		2	3	4	9

Please provide an answer in each row using the following scale!

5) Sample persons have different reactions to the request to participate in a study: Some agree spontaneously, others hesitate or refuse immediately. In the following statements, please tell us your opinion as an experienced interviewer.

Please provide an answer in each row using the following scale!

	strongly agree	some- what agree	some- what disagree	strongly disagree	don't know
Reluctant respondents should always be persuaded to participate.		2	3	4	9
With enough effort, even the most reluctant respondent can be persuaded to participate.		2	3	4	9
An interviewer should respect the privacy of the respondent.		2	3	4	9
If a respondent is reluctant, a refusal should be accepted.		2	3	4	9
One should always emphasise the voluntary nature of participation.		2	3	4	9
It does not make sense to contact reluctant target persons repeatedly.		2	3	4	9
If you catch them at the right time, most people will agree to participate.		2	□3	4	9
Respondents that were persuaded after great effort do not provide reliable answers.		2	3	4	9

General attitudes and behaviour

6) Generally speaking, would you say that most people can be trusted or that you can't be too careful in dealing with people?

Please use the scale from 0 to 10, where 0 means that you can't be too careful in dealing with people and 10 means that most people can be trusted. With the values in between you can grade your opinion.

You can't b	e too cai	reful.					→		Most pe	eople can be trusted.	don't know
Πo		2	3	4	5	6	7	8	9	10	99

7) What would you say? To what extend do the following statements apply to you?

The statement applies to me	perfectly	some- what	not really	not at all	don't know
My first impression of people generally turns out to be right.		2	3	4	9
I am uncertain about my judgements.		2	3	4	9
I know exactly why I like something.		2	3	4	9
I don't say anything, if I receive too much change.		2	3	4	9
I am honest with others.		2	3	4	9

Please provide an answer in each row using the following scale!

You as a respondent

8) In the last 5 years, how often have you taken part in a survey as a respondent (not counting this survey)?

999 (don't know)

9) If you have previously taken part in surveys, what kind of surveys were they?

Please tick one answer only!

Predominantly scientific surveys (e.g. studies like SHARE, election studies)	
Predominantly commercial surveys or market research	2
Both scientific and commercial surveys to the same extent	
I have never taken part in any survey.	

10) Have you received any incentive/compensation for your participation in these studies?

Please tick one answer only!

Predominantly yes		Approximately both to the same extent	
Predominantly no	2	I have never taken part in any survey.	

Data protection

11) How concerned are you about the safety of your personal data?

Please tick one answer	r only!	
Very concerned		
Quite concerned	2	
A little concerned		
Not concerned at all	4	9 (don't know)

12) How concerned are you about computers or other technologies being used to invade your privacy?

Please tick one answer only!

Very concerned		
Quite concerned	2	
A little concerned		
Not concerned at all	4	

9 (don't know)

What would you do?

In the following we want to ask you to imagine yourself in different hypothetical situations. What would you do if you were in one of the following situations?

13) You are a respondent to a survey of [NATIONAL STATISTICAL OFFICE]. As part of this survey you are asked to provide the following pieces of information. For each of these the interviewer gives you plausible reasons why he/she needs the information.

How likely is it that you would provide the following information?	very likely	quite likely	quite unlikely	very unlikely	don't know
Your national social insurance number		2	3	4	9
Your date of birth		2	3	4	9
Your place of birth		2	3	4	9
Your private telephone number		2	3	4	9
Your complete name		 ₂	3	4	9
Your mother's maiden name		2	3	4	9
Your private address		2	3	4	9
Your credit card number		2	3	4	9
Name and address of your health insurance		2	3	4	9
Your health insurance number		2	3	4	9

Please provide an answer in each row using the following scale!

14) In the same study you are asked to consent to the linkage of your survey data with administrative data. How likely is it that you would consent to the [NATIONAL STATISTICAL OFFICE] linking your answers with the following data sources?

	very likely	quite likely	quite unlikely	very unlikely	don't know
Your income tax assessment			□3	4	9
Your debts and loans		2	3	4	9
Your employment history, i.e. information about previous periods of employment and unemployment		2	 ₃	4	9
Your medical data, held by your doctors		2	3	4	9
Information about your health insurance			3	4	9
Information about receipt of social security benefits such as unemployment benefits or social welfare			3	4	9
Information from your school files (diplomas etc.)		2	3	4	9

Please provide an answer in each row using the following scale!

15) In some of their surveys [SURVEY ORGANISATION] asks respondents to consent to have their survey data linked to the administrative data from the [ADMINISTRATIVE DATA SOURCE, E.G. SOCIAL SECURITY REGISTER]. This concerns for example additional information about [PREVIOUS PERIODS OF EMPLOYMENT, UNEMPLOYMENT AND THE PARTICIPATION IN WORK PROGRAMMES DURING UNEMPLOYMENT]. What do you think, how many of your respondents (in percent) would consent to this?

		%			999 (don't kn	ow)	
16) W	/ould y	ou as a r	espondent agr	ee to sucł	n a linkage?		
	Yes			No			9 (don't know)

Expectations about wave 4 of the study 50+ in Europe

18) Have you worked as an interviewer on previous waves of SHARE?

Yes		1

19) Studies vary as to whether they reward respondents for their survey participation and how much respondents receive. Please imagine that your respondents receive the following incentives.

Please indicate your expectations in each row!

What do you expect, which percentage of your sample persons will agree to the interview, if	Expected response rate in percent
[NATIONAL SCENARIOS]	%
	%
	%
	%

20) Social surveys very often ask about respondents' income. How many of your respondents (in percent) in SHARE do you expect will provide information about their income?



999 (don't know)

21) In SHARE respondents are asked to consent to some physical measurements, such as blood pressure, height, waist circumference and the collection of small blood spots.

Please give your expectations in each row!

What do you think, which percentage of your respondents will consent to the following measurements?	Expected consent rate in percent
Measurement of blood pressure	%
Measurement of body height	%
Measurement of waist circumference	%
Collection of small blood spots	%

22) Please imagine that you are a respondent to SHARE or a similar scientific study. Which measurements would you as a respondent consent to?

Please tick all that apply!

Measurement of blood pressure	
Measurement of body height	
Measurement of waist circumference	
Collection of small blood spots	 9 (don't know)

23) Do you personally have experience with measuring blood sugar levels, either because you or someone you know has diabetes?

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Yes	 No	

24) Do you donate blood?

Please tick one answe	er only!		
Yes, regularly		No, not anymore	
Yes, occasionally		No, I have never donated blood	4

Personal details

25) Are you male or female?

Male

Female	 2

26) In which year were you born?

Year of birth:

27) Do you u	ise social networks in the intern	net II	ke Facebook, Myspace of Twitte
Yes		No	2
28) Do you u	se the internet for online-bank	ing?	
Yes		No	2
29) Do you h	old the [COUNTRY'S] citizenshi	ip?	
Yes		No	2

30) Please state whether you, your mother and your father were born in [COUNTRY].

	Yes	No	
You yourself		2	9 (don't know)
Your mother		2	9 (don't know)
Your father		2	9 (don't know)

31) Apart from your job as an interviewer do you have any other job? Are you...

Please tick all that apply!

full-time employed		retired	7
part-time employed		on parental leave	
[COUNTRY SPECIFIC]		a homemaker	9
in vocational training or occupational re-training	4	a student	
unemployed		other	
[COUNTRY SPECIFIC]		none of these	

27) Do you use social networks in the internet like Facebook, Myspace or Twitter?

32) Which is your highest level of education?

Please tick your highest level of education only!

Graduated from lower-level secondary school [NATIONAL EQUIVALENT]	
Graduated from medium-level secondary school [NATIONAL EQUIVALENT]	2
Advanced technical college entrance qualification or graduated from upper-level secondary school [NATIONAL EQUIVALENT]	
University degree [NATIONAL EQUIVALENT]	4

33) How many persons do currently live in your household?



34) All in all, approximately what was the average monthly income of your household after taxes in the last year?



Thank you very much for participating!