



Understanding Society

THE UK HOUSEHOLD LONGITUDINAL STUDY

The role of interviewers in gaining consent to record linkage: Evidence from the UK longitudinal studies

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Background



Data linkage (DL) – a tool to maximise cross-disciplinary research opportunities

- DL increasingly popular, not only in health but also in the social sciences (→ Big Data, WADL)
- Informed consent is typically required before individuals' survey responses can be linked with their personal records held by external agencies

A lot of heterogeneity in studies' success rate

- Respondent characteristics? Survey design features?
Interviewer characteristics?

Correlates of consent

Respondent characteristics

- Age, Gender, Socio-economic status, Health (for health studies), Ethnicity (Gerber et al, 2007; Olson 1999; Dunn et al, 2004; Huang et al, 2007; Tate et al, 2006, Kho et al, 2009, Knies et al 2012, 2014, Cruise et. al. 2015)
- Perceptions of risk, Altruism, Community mindedness, Willingness to provide information on wealth/income (e.g. Jenkins et al, 2006; Olson, 1999; Woolf et al, 2000; Dunn et al, 2004; Armstrong et al, 2008, Sala et al, 2012; Knies & Burton, 2014)

Survey design features

- Domain of DL, question wording, question ordering, signature requirement, interview sequence in household (e.g. Sakshaug et al 2012, 2013; Sala et al 2012, 2014; Copolla, under review)

And interviewer characteristics?

Correlates of consent (cont.)

28-34% of the variance in consent outcomes is attributable to interviewer characteristics, but:

- Inconsistent findings with respect to **age and gender**; most likely no effects (e.g. Sakshaug et al, 2012; Sala et al, 2012)
- Inconsistent findings with respect to **experience on the survey** (Korbmacher and Schroeder, 2013: +; Fulton, 2012; Pascale, 2011: -; Sala et al 2012: no effect)
- No evidence that interviewer **personality traits** and **attitudes to persuading respondents** matter (Sala et al., 2012)
- No evidence that stated **interviewer attitudes to consent to DL** matter (Sakshaug, Tutz, and Kreuter, 2013)
- Some evidence that **task-specific experience** matters (Sala et al 2012)

Key features of the household panel data

- Individual interviews
 - In a household context
 - Same interviewer per household
 - Interviewers typically interview >1 household
- ⇒ Provides information on interviewer task-specific experience a) prior to entering the household, and b) prior to interviewing this individual



NCRM-funded project 2013/14 “Understanding Non-response on Understanding Society”

- **Analysis of audio-recordings of consent to link to DWP records (Innovation Panel Wave 4)**
 - to open the black box of what is happening during the consent to data linkage request
- **Design, implementation and analysis of survey with interviewers who worked on Understanding Society Wave 1 (during 2014)**
 - to permit a theory-driven analysis of interviewer effects on data linkage requests

Study 1: Audio-recordings: Coding frame

- Initial focus on departure from ‘standardised interviewing’
 - Did the interviewer read the question exactly?
- Further detail on departures
 - What did the respondent ask?
 - What other information did the interviewer give/withhold?
 - Did interviewer use printed materials?
- Code the presence of certain behaviours
 - Rather than coding every utterance, or exchange
- “Positive” or “Negative” behaviours
 - Subjective evaluation of behaviour according to professional and ethical standards

Study 2: Interviewer Survey

Question modules

- Interviewer attitudes towards the survey process
 - Q's about attitudes to disclosing personal info, trust in others/in govt
 - Q's about importance of surveys for science/society, job satisfaction
- Own behaviour regarding data collection requests
 - Response behavior in interviewer survey, hypothetical consent to DL
- Experience with measurements
 - Easy/difficult survey instruments, usefulness of survey instruments
 - Respondent reaction to DL request
- Interviewer expectations regarding survey outcome
 - Questions about how useful DL is for the Study
 - (also: observed success/failure rate in UKHLS interviews)
- Plus demographics from the fieldwork agency file & respondent & interviewer item-non response

Methods (both studies)



- Dependent variable: (1=respondent consented to DL, 0=respondent did not consent)
- Bivariate and multivariate logistic regression analysis
- Results are weighted for unequal selection probabilities and non-response
- Analysis uses Stata svy commands to take into account complex sampling design

Study 1 uses Innovation Panel

Innovation Panel (IP)

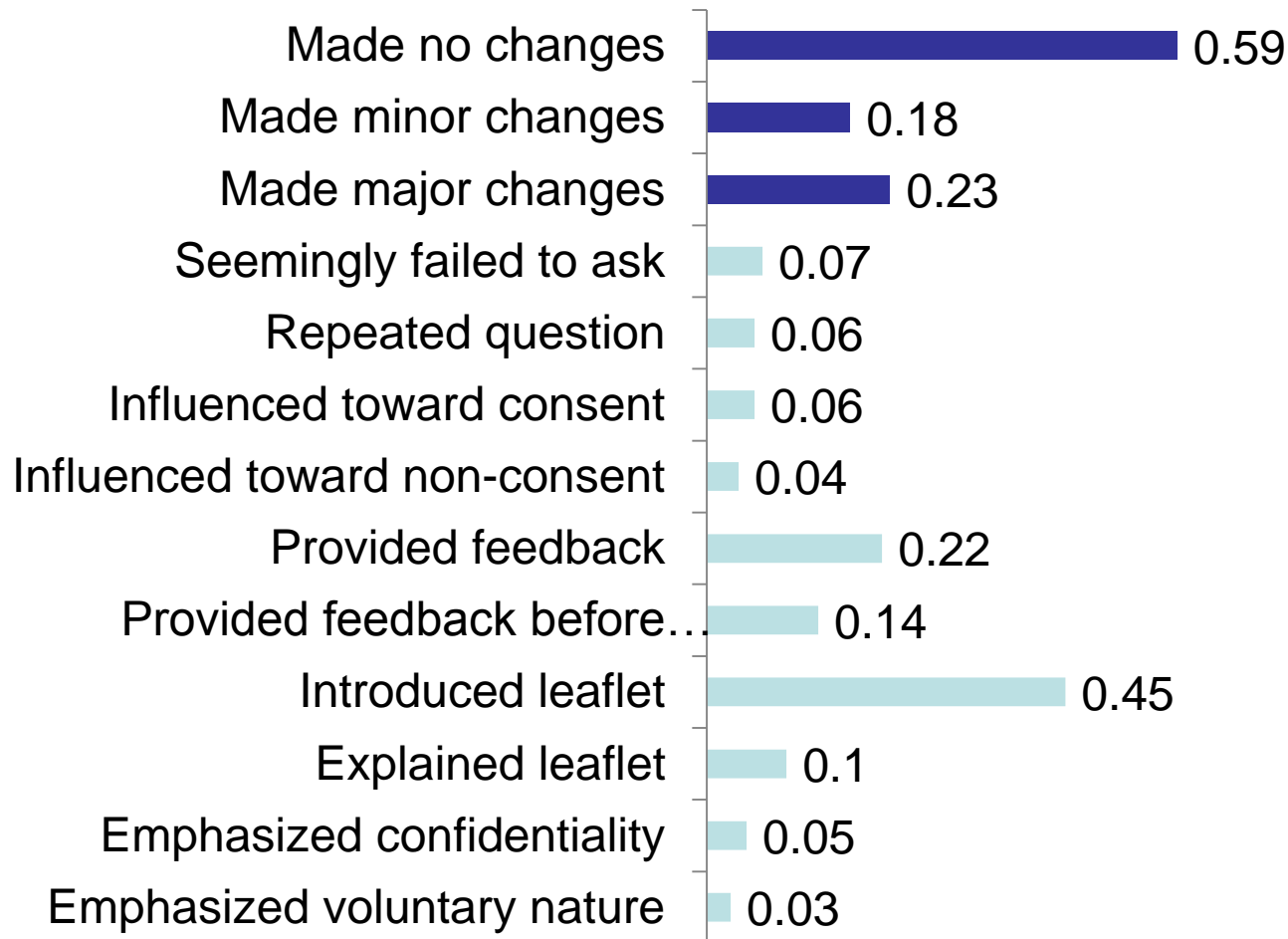
- 1,500 households
- Similar design to main-stage Understanding Society
- “Testing lab” – new questions and new ways of asking old questions
- IP4 (2011)
 - Original sample (4th wave) + refreshment sample (1st wave)
 - Refreshment sample, aiming for 500 interviewed households
 - 14 experiments: 5 survey procedures + 9 within-interview experiments

<https://www.understandingsociety.ac.uk/research/publications/working-paper/understanding-society/2012-06.pdf>

Our analysis sample

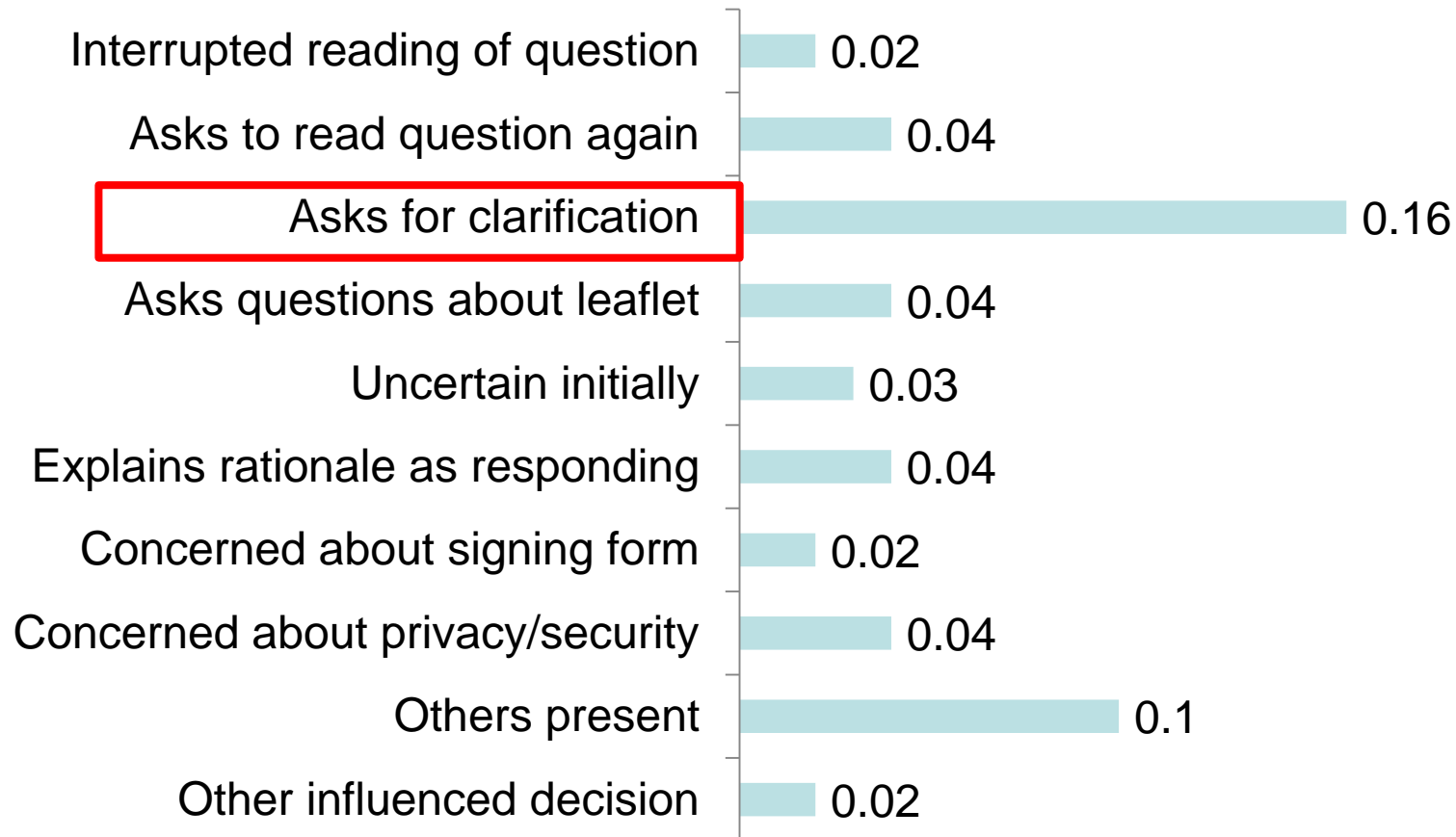
Number of IP4 adult interviews	2,179		
- Number of respondents giving permission to record interview		1,490 68.4%	
Number of respondents asked for consent	2,168		
- Number giving permission to record		1,483 68.5%	
- Number with audio file		1,334 61.5%	89.9%
- Number of interviews where the consent question was identified in recording		1,246 57.5%	93.5%
<p>Consent to DL higher among those who consented to audio-recording (71% compared to 43%).</p> <p>- Initial analyses will not consider this selectivity</p>			

What happens when the interviewer is asking for consent?



Coded as all that apply

What does the respondent do?



Coded as all that apply

Are coded interviewer behaviours associated with consent?

Consent rates by behaviours (N=1,251)

	Not observed	observed	p-value*
Made no changes	0.70	0.76	0.113
Made minor changes	0.72	0.77	0.356
Made major changes	0.76	0.64	0.010
Seemingly failed to ask	0.75	0.42	0.000
Repeated question	0.74	0.57	0.011
Influenced toward consent	0.72	0.91	0.000
Influenced toward non-consent	0.76	0.15	0.000
Provided feedback	0.73	0.73	0.841
Provided feedback before initial response	0.74	0.68	0.295
Introduced leaflet	0.64	0.85	0.000
Explained leaflet	0.73	0.76	0.488
Emphasized confidentiality	0.72	0.93	0.000
Emphasized voluntary nature	0.74	0.48	0.015

Are coded respondent behaviours associated with consent?

Consent rates by behaviours (N=1,251)

	no	yes	p-value*
Interrupted reading of question	0.73	0.63	0.421
Asks to read question again	0.73	0.65	0.343
Asks for clarification	0.76	0.59	0.002
Asks questions about leaflet	0.73	0.85	0.060
Uncertain initially	0.73	0.63	0.336
Explains rationale as responding	0.74	0.61	0.131
Concerned about signing form	0.73	0.90	0.003
Concerned about privacy/security	0.74	0.63	0.169
Others present	0.73	0.76	0.537
Other influenced decision	0.74	0.47	0.041

* based on F-tests of equality of group means

Multivariate predictions of consent

(OR, SE. clustered at IV level. Individual & interviewer characteristics also included but not reported)

Other indicators

# prior consents in hh	1.78**
# prior failures in hh	0.20***
IV # consents b4 hh	1.01
IV # failures b4 hh	0.91**
Others present	0.91
Others influence	0.21**

Interviewer behaviour

<i>reads question with minor change</i>	1.65*
<i>reads question with major change</i>	0.70
<i>repeats question</i>	0.48*
<i>influences toward consent</i>	4.17**
<i>influences toward non-consent</i>	0.11***
<i>provides feedback/explains</i>	1.29
<i>provides feedback before initial response</i>	0.44
<i>introduces leaflet</i>	5.41***
<i>explains leaflet</i>	0.41**
<i>highlights confidentiality</i>	13.30*
<i>highlights voluntary nature</i>	0.26**

Respondent behaviours

<i>interrupts reading of question</i>	0.43
<i>asks to repeat question</i>	1.02
<i>asks for clarification</i>	0.71
<i>asks question about leaflet</i>	1.30
<i>uncertain initially</i>	0.48
<i>explains rationale while responding</i>	0.40**
<i>concerned about signing form</i>	2.81
<i>concerned about confidentiality/privacy</i>	0.31***

Study 2: Interviewer Survey 2014



- CASI and PAPI/WEB survey administered in May/June 2014
- 473 interviewers participated (Response rate: 58%)
 - Lower rate among former NatCen interviewers: 35%
- Average item non-response among interviewers: 0.7%
 - Average rate among W1 respondents: 2.5%

Linked to Understanding Society Wave 1; repeating analysis from CLOSER project comparing consent bias across cohort studies see Knies & Burton 2014).

Number of respondents: >35k

Interviewer attitudes on surveys and data privacy

	Surveys important for science, politics, economy	Surveys make Society more democratic	Govt. asks for more and more	Disclosing info not a big issue	Disclosing info part of modern life	Govt. can be trusted to protect info
Strongly agree	49.6	24.6	25.5	3.8	15.2	2.5
Agree	48.2	56.3	58.8	36.1	76.2	41.2
Disagree	2.0	18.8	15.1	44.5	7.3	45.0
Strongly disagree	0.2	0.5	0.7	15.7	1.3	11.4

	General trust	Trust in Govt.
Just about always	3.7	0.4
Most of the time	68.5	16.2
Some of the time	27.8	73.9
None of the time	0.0	9.5

Interviewer measurement experience

Easy/Diff to understand	Info leaflet	DL info leaflet	Consent form	Usefulness	Info leaflet	DL info leaflet	Consent form	DL
Very easy	40.2	19.3	18.5	Very	44.1	32.8	34.2	29.0
Easy	54.9	59.7	60.8	Somewhat	45.2	49.7	49.1	51.7
Difficult	4.7	18.6	18.7	Only a little	9.5	16.0	14.4	17.1
Very difficult	0.2	2.4	2.0	Not at all	1.1	1.6	2.2	2.3

Interviewer consent rate: 69.7

Likelihood of consent to	Health	Education	"DWP"	"HMRC"	Utility usage	Store cards	Police records
Very likely	42.2	51.9	37.4	39.1	54.3	46.9	50.3
Likely	31.4	33.8	29.9	29.4	33.1	31.6	25.8
Unlikely	15.9	8.2	19.0	17.0	7.5	13.7	11.9
Very unlikely	10.6	6.2	13.7	14.6	5.1	7.7	11.9

Multivariate predictions of consent

(b-coeff., logistic model) Wave 1 Understanding Society

UK white	0.04			
female	0.66			
Not trusting	-0.19**	←	Resp. generally trusts others	0.23***
Not trusting govt	0.11			
Big5: Agreeableness	0.09**			
Disagreement:				
<i>Surveys good for science, policy</i>	0.08			
<i>Help make society more democratic</i>	0.02			
<i>Govt more and more data</i>	-0.07			
<i>Disclosing pers. info not big issue</i>	-0.04	←	Read: The more concerned about data sharing, the lower consent	
<i>Disclosing increasing part modern life</i>	-0.00			
<i>Govt agencies can be trusted pers info</i>	-0.04			
Usefulness of DL for Study	0.03			
Easy/Difficult: DL info leaflet	0.04			
Easy/Difficult: Consent forms	-0.03			
Usefulness: DL info leaflet	0.05			
Usefulness: Consent forms	-0.05			
Would not consent to DL	-0.20*			
Likelihood non consent: Health	-0.02			
police records	0.07*			
Interviewer item-non-response rate	-2.72	←	Resp. item non-response rate (SC only)	-1.52***

* Also controls for individual characteristics. Significant at * 90%, ** 95%, *** 99%

Summary and outlook

- Behaviours do seem to be significantly related to consent outcome
 - When behaviours are included, the significance of standard interviewer and (most) respondent characteristics disappear
- Statistical analysis of audio-recordings shows that interviewer behaviour can influence decision, whilst nothing the respondent does is really related to consent:
 - Improve analysis by focusing on typical exchanges and sequences, rather than recording presence/absence of behaviour?
 - Explore further as qualitative evidence, e.g., for specific cases such as ethnic minority respondents; interviewers with poor/good success rates for training purposes.
- ? Can interviewer training focusing on this non-standard interaction improve consent rates?
- ? Interviewer training to foster positive behaviours and curb negative behaviours

Summary and outlook (cont.)



- Interviewer Survey analysis Indicates that consent materials may be too difficult for some
 - Consent forms for children particularly tricky
- Some indication of interviewers who've subsequently left NatCen having had a tougher time (unclear causality).
- Interviewers with a moderate attitude to sharing private information more successful?
- Explore heterogeneity further: Do certain interviewer types work better for some types of respondent?

For further information

Sala, Burton & Knies (2010): Correlates of Obtaining Informed Consent to Data Linkage: Respondent, Interview and Interviewer Characteristics, SMR 41(2010-28).


Knies, Sala & Burton (2012): Consenting to health record linkage: Evidence from a multi-purpose longitudinal survey of a general population, BMC HSR 12(1).

Knies & Burton (2014): Analysis of four studies in a comparative framework reveals: health linkage consent rates on British cohort studies higher than on UK household panel surveys, BMC MED RES M 14(1).

Sala, Knies & Burton (2014): Propensity to consent to data linkage: Experimental evidence on the role of three survey design features in a UK longitudinal panel, IJSRM 17(5).

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That's all.
Thank you for your attention!

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Consent question on IP4

Treatment	Asked at the end (50%)	Asked in context (50%)
Question 1	“We would also like to add information on your National Insurance contributions, benefits and taxes, savings and pensions from administrative records held by the DWP to your survey responses. Are you happy for us to do so?”	
Interviewer instruction	“If the respondent says 'yes', do not administer either the form or the leaflet at this point. You will be prompted to hand these over at a later question.”	
Options	1 Yes 2 No	
Question 2 (consenters only)	<p>“Earlier in the interview you said that you would be happy to give us permission to add information on your National Insurance contributions, benefits and taxes, savings and pensions from administrative records held by the DWP to your survey responses,”</p> <p>“This leaflet gives you information about what we would like to do. Please read it, ask me any questions and sign the form if you are happy for us to do this.”</p>	
Interviewer Instruction	You must make sure the respondent has initialled both boxes and signed the form to give consent. Please copy the Serial number below onto the form. [serial number]	
Options	1 Respondent signed and returned 2 Respondent wishes to withhold consent	

* Standard version of the consent question. Some respondents were randomly allocated to dependent interviewing question wording. For full description of consent experiments, see Sala et al, 2014)