

Research Design

**Department of Sociology
Oxford University**

**Hilary Term 2018
Manor Road Building
Seminar Room G**

Wednesday 10.00-13.00

Week 1. **All** to attend at **10.00**

Thereafter

10.00-11.00 Group A Family name A to D.

11.00-12.00 Group B Family name H to N.

12.00-13.00 Group C Family name P to Y.

Web Site: <http://users.ox.ac.uk/~sfos0015/>

Staff responsible: Colin Mills: colin.mills@sociology.ox.ac.uk

RUBRIC

The course is concerned with the nature of empirical investigation in the social sciences. It deals with the question of how we establish systematic knowledge about the social world. There are two principle topics: causation and measurement. In each part of the course we will consider examples of empirical studies that illuminate aspects of the subject under discussion.

SYLLABUS

The research process; aims of enquiry; relationship between research and theory; falsifiability; testable propositions; causality; experimental and non-experimental research designs; longitudinal studies; cross-sectional studies; measurement; validity and reliability; scale and index construction.

COURSEWORK

One non-assessed paper to be submitted by Friday of Week 5 HT.

ASSESSMENT

One "critical essay" – details in the Handbook for Graduate Students.

LECTURE SLIDES

All lecture slides will be available from my website.

TEXTBOOKS

There is no single textbook that covers all the material. For a general overview the following might be useful:

Hoyle, R. H. Ouellette, S. and M. J. Harris (2007) *Research Methods in Social Relations* (8th ed.).

Shadish, W. R, Cooke, T. D. and D. T. Cambell (2001) *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*.

TWO BOOKS

There are 2 books you should read from cover to cover..

King, G., Keohane R. O. and S. Verba (1994) *Designing Social Inquiry*.

Morgan, S. L. and C. Winship (2014) *Counterfactuals and Causal Inference*.

If you are at all serious about social science you will want these as reference books for you will find yourself coming back to them time and time again. If you can put your hand on your heart and swear that you are on top of everything contained in these books then I don't have much to teach you and you are excused!

ADVICE

It's easy not to get much out of this course. Just watch the lectures, file away copies of the slides and do the absolute minimum of reading. Never think about the issues raised nor relate them to material in other courses. Write your dissertation as though you never heard about the material and never talk to your colleagues about the issues involved. Sit silently in the seminars and wait passively for enlightenment. That should do the trick. Also good is to assume that you know it all already: that creates a pretty effective block on learning.

COURSE DELIVERY

This year, apart from Week 1, I won't give a lecture on Wednesday morning and we will use the three hour slot for three 50 minute seminars. Students are allocated to seminar groups by the first letter of their family name. Please come to the seminar you are allocated to. You may however change groups by mutual agreement i.e. unilateral changes are not allowed but if somebody agrees to swap with you, that is OK.

SEMINAR PREPARATION

1. Watch the video lecture posted on my You Tube channel. You can link to it through my homepage <http://users.ox.ac.uk/~sfos0015/> There will be a total of 6 video lectures, corresponding to the seminars in weeks, 2, 3, 4, 6, 7 and 8. There is no lecture for the seminar in week 5. I'll endeavor to have the video lecture posted a least seven days before the corresponding seminar.

For each seminar you need to attempt the following, in order of importance:

1. Watch the lecture.
2. Do the seminar reading (there is no seminar reading for weeks 1 & 8).

3. By mid-day of the Tuesday before the seminars in weeks 2, 3, 4, 5, 6 & 7 send me by email one of the following:

Either

3.1 A question about something in the lecture you didn't understand, disagree with or want us to discuss further;

or

3.2 A question about something in the seminar reading you didn't understand, disagree with or want us to discuss further.

Questions can be succinct – one sentence; or longer – several sentences. They should be no longer than one paragraph. It is compulsory to send me a question. Consider it your entry ticket to the seminar. If you don't send me a question for a particular seminar you should feel ashamed to attend.

4. Do the lecture reading (less important you do it by the seminar but you should do it sometime).

Each seminar will consist of two parts. In the first half we'll discuss issues raised by your questions about the lecture. In the second half we'll discuss issues raised by your questions about the seminar readings.

Reading

Lecture 1. Doing Social Science

Freedman, D. (1991) 'Statistical Models and Show Leather', *Sociological Methodology*, 21, 291-313.

S Lieberson (1992) 'Einstein, Renoir and Greely: Some Thoughts about Evidence in Sociology', *American Sociological Review*, 57, 1-15.

S. Lieberson and F. B. Lynn (2002) 'Barking Up the Wrong Branch: Scientific Alternatives to the Current Model of Sociological Science'. *Annual Review of Sociology*, 28: 1-19.

Xie, Y. (2006) Otis Dudley Duncan's Legacy: The Demographic Approach to Quantitative Reasoning in Social Science, Population Studies Center, University Of Michigan, Report 06-589.

Week 2 Lecture 2 Causality 1

Lecture Reading

Cartwright, N. and J. Hardie (2012) *Evidence-Based Policy: A Practical Guide to Doing it Better*.

Cohen, J. (1994) 'The earth is round (p. < .05)' *American Psychologist*, 49, 12: 997-1003.

Colquoun, D. (2017) The reproducibility of research and the misinterpretation of P values. BioRxiv preprint.

Greiner, D. J. and D. B. Rubin (2011) 'Causal Effects of Perceived Immutable Characteristics', *The Review of*

Economics and Statistics, 93(3): 775-785.

Holland, P. W (1986) 'Statistics and Causal Inference', *Journal of the American Statistical Association*, 81, 39, 945-960.

Seminar Reading

Is it useful to think of the randomized controlled trial as a "gold standard" for the discovery of causal effects?

Deaton, A. and N. Cartwright (2017) 'Understanding and misunderstanding randomized controlled trials', *Social Science & Medicine*.

Heckman, J. J. and J. A. Smith (1995) 'Assessing the Case for Social Experiments', *Journal of Economic Perspectives*, 9, 2, 85-110.

Senn, S. (2012) 'Seven myths of randomization in clinical trials', *Statistics in Medicine*, 32, 9, 1439-1450.

Worrall, J. (2007) 'Why there's no cause to randomize', *British Journal of the Philosophy of Science*, 58, 451-488.

Week 3 Lecture 3 Causality 2

Lecture Reading

Bullock, J. G., Green, D. P. and S. E. Ha (2010) 'Yes, but what's the mechanism? (Don't expect an easy answer)'. *Journal of Personality and Social Psychology*, 98, 550-558.

D. R. Cox and N. Wermuth (2001) 'Some Statistical Aspects of Causality', *European Sociological Review*, 17, 1, 65-74.

Elwert, F. (2013) Graphical Causal Models in Morgan, S. L. (ed.) *Handbook of Causal Analysis for Social Research*.

Gangl, M. (2010) 'Causal Inference in Sociological Research' *Annual Review of Sociology*.

Morgan & Winship (2007) op cit., Chs. 1, 2, 3.

VanderWeele, T. J. (2016) 'Mediation Analysis: A Practitioners Guide', *Annual Review of Public Health*, 37: 17-32.

Seminar Reading

Sherman and Berk (1984) draw the reader's attention to a number of threats to the internal and external validity of their field experiment. What are they and how seriousness are the threats they pose to the integrity of the causal inferences that may be drawn from the study.

Are there any obvious (inexpensive) ways in which Sherman and Berk's research design might be improved?

Sherman, L. and R. Berk (1984) 'The specific deterrent effects of arrests for domestic assault', *American Sociological Review*, 49, 261-272.

Berk, R., A. Campbell, R. Klap and B. Western (1992). 'The deterrent effect of arrest in incidents of domestic violence: A Bayesian analysis of four field experiments.' *American Sociological Review*, 57, 698-708

Week 4 Lecture 4 Causality 3

Lecture Reading

Morgan & Winship (2007) op cit., Ch. 3.

Berk, R. A. (1983) 'An Introduction to Sample Selection Bias in Sociological Data', *American Sociological Review*, 48, 386-398.

Bollen, K. A. (2012) 'Instrumental variables in sociology and the social sciences' *Annual Review of Sociology*, 38.

Dunning, T. and D. Freedman (2007) 'Modeling selection effects' in W. Outhwaite and S. P. Turner (2007) *The SAGE handbook of social science methodology*. Downloadable at: <http://www.thaddunning.com/wp-content/uploads/2009/12/select.pdf>

Winship, C. and R. D. Mare (1992) 'Models for Sample Selection Bias', *Annual Review of Sociology*, 18, 327-50.

Seminar Reading

Imagine (suspend your disbelief) that you have been asked to advise a senior Ministry of Justice official on the case for introducing transitional payments to ex-offenders. In particular you have been asked to read the following four articles:

Berk, Richard A., Kenneth J. Lenihan, and Peter H. Rossi. 'Crime and Poverty: Some Experimental Evidence from Ex-Offenders'. *ASR*. Vol.45. No.5. pp.766-786.

Zeisel, Hans. 'Disagreement over the Evaluation of a Controlled Experiment'. *AJS*. Vol.88. No.2. pp.378-389.

Rossi, Peter H., Richard A. Berk and Kenneth J. Lenihan. 'Saying It Wrong with Figures: A Comment on Zeisel'. *AJS* Vol.88. No.2. pp.390-393.

Zeisel, Hans. 'Hans Zeisel Concludes the Debate'. *AJS*. Vol.88. No.2. pp.394-396.

The official you are liaising with confesses that he is bewildered by the content of these articles. Well qualified academic experts appear to disagree about what the results of an experimental study on recidivism show. Your task is, **on the basis of the evidence of these four articles alone**, to clarify the differences between the two sides of the debate **and answers the question**: does paying ex-offenders a transitional allowance reduce their probability of reoffending?

For the purposes of this exercise you can ignore the American context of the articles. You should concentrate only on the main intellectual issues at stake. For example whether there are 3 or 4 experimental conditions is not a **major** intellectual difference between the two sides. In the course of

reaching your conclusion you will have to have a clear understanding of why the two sides seem to reach very different conclusions. Would a DAG help?

Week 5 No Lecture

Seminar Reading Causality Roundup

Can a convincing case be made for the aspiration to discover the causes of effects? If not, why not? If so, what is that case?

Ni Bhrolcháin, M. and Dyson, T. (2007) 'On causation in demography: issues and illustrations' *Population and Development Review*, 33, 1, 1-36.

Krieger, N. and Davey Smith, G. (2016) 'The tale wagged by the DAG: broadening the scope of causal inference and explanation for epidemiology', *International Journal of Epidemiology*, 45, 6, 1787-1808.

S. Lieberman (1991) 'Small N's and Big Conclusions: An Examination of the Reasoning in Comparative Studies Based on a Small Number of Cases', *Social Forces*, 70, 2, 307-320

Lieberman, S. and Horwich, J. (2008) 'Implication analysis: a pragmatic proposal for linking theory and data in the social sciences', *Sociological Methodology*, 38, 1-50. See also the comments that follow the article.

Smith, H. L. Causation and Its Discontents in Engelhardt, H., Kohler, H-P and A. Fürnkranz-Prskawetz (eds.) *Causal Analysis in Population Studies*.

Lecture 6. Measurement 1

Lecture Reading

Carmines, E. G. and R. A. Zeller (1979) *Reliability and Validity Assessment*.

Zeller, R. A. and E. G. Carmines (1980) *Measurement in the Social Sciences: The Link Between Theory and Data*.

Adcock, R. and D. Collier (2001) 'Measurement Validity: A Shared Standard for Qualitative and Quantitative Research', *American Political Science Review*, 95, 3, 529-546.

D. J. Batholomew and K. F. Schuessler (1991) 'Reliability of Attitude Scores Based on a Latent Trait Model', *Sociological Methodology*, 21, 97-123.

Seminar Reading

Is it possible to make meaningful comparisons of subjective phenomena?

King, G., Murray, C. J. L., Salomon, J. A. and A. Tandon. "Enhancing the Validity and Cross-cultural Comparability of Measurement in Survey Research," *American Political Science Review*, Vol. 97, No. 4 (December, 2003), 567-584; reprinted, with printing errors corrected, Vol. 98, No. 1 (February, 2004): 191-207.

Lecture 7 Measurement 2

Lecture Reading

Bollen, K. A. (1984) 'Multiple Indicators: Internal Consistency or No Necessary Relationship?', *Quality and Quantity*, 18, 377-385.

Bollen, K. A. and P. Paxton. (2000). 'Subjective Measures of Liberal Democracy.' *Comparative Political Studies* 33:58-86.

Bollen, K. A. and S. Bauldry (2011) 'Three Cs in Measurement Models: Causal Indicators, Composite Indicators, and Covariates', *Psychological Methods*, 16, 3, 265-284.

Paxton, P. (1999). 'Is Social Capital Declining in the United States? A Multiple Indicator Assessment.' *American Journal of Sociology* 105:88-127.

W. M. Mason, J. S. House and S. S. Martin (1985) 'On the Dimensions of Political Alienation in America', *Sociological Methodology*, 15, 111-151.

Seminar Reading

Come to class prepared to discuss the methodological strengths and weaknesses of the empirical work reported in either:

L. F. Schwartzman (2007) 'Does Money Whiten? Intergenerational Changes in Racial Classification in Brazil', *American Sociological Review*, 72, 940-963.

or

Rosenfeld, M. J. and R. J. Thomas (2012) 'Searching for a Mate: The Rise of the Internet as a Social Intermediary', *American Sociological Review*, 77, 4, 523-547.

Lecture 8. Measurement 3

Lecture Reading

Payne, S. L. (1951) *The Art of Asking Questions*.

Sudman, S. and N. M. Bradburn (1982) *Asking questions: A practical guide to questionnaire design*, San Francisco, Jossey Bass.

Converse, J. M. and S. Presser. (1986) *Survey Questions: Handcrafting the standardized questionnaire*

Foddy, W.(1993) *Constructing questions for interviews and questionnaires*, Cambridge, CUP.

Schuman, H. and S. Presser (1981) *Questions and Answers in Attitude Surveys*, San Diego, Cal., Academic Press.

Schaeffe, N. C. and S. Presser (2003) 'The Science of Asking Questions' *Annual Review of Sociology*, 29. 65-88.

Seminar No Reading

Feedback on mid-term paper and briefing for summative assessment.