THE HISTORY AND DEVELOPMENT OF SOCIOLOGICAL SOCIAL RESEARCH METHODS

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Summary

Most histories or reviews of sociology focus on theoretical developments, ignoring social research methods, although in various phases and various ways Sociology has also been an inherently empirical discipline. It is one of the more empirically-orientated social sciences. Indeed, for a period at least Sociology was inexorably linked with the methodology of survey research. The discipline's concern with social measurement has followed from its concerns both to describe and analyse the characteristics of individuals but also the quest to develop an overview of large social structures, which are much larger than the span of observation that a single investigator may have, and as well as the need to appear appropriately 'scientific' in contrast to common-sense social knowledge.

The development of Social Research Methods (SRM) has proceeded on several levels: one was the meta-theoretical (i.e. philosophical concern) about the deployment of scientific method to deal with 'social things', but also formalisation of methodology and detailed empirical investigations into how methods actually work and can be improved. Sometimes the levels of social research methods are referred to through the contrast between the more philosophical "Methodology" (with a capital initial letter) and the more practical methods (with lower case initial letters and in the plural). There is a tendency in discussing SRM to focus on data-collection, but the other stages of Research Design and of Data Analysis are equally important.

The chapter follows the development of social research methods across several phases, each of which is partly determined by the changed circumstances of those responsible for carrying it out:

- Early prehistory (pre-1820) : 'gentleman scientists' (often in part as members of scientific societies) commenting on social information;
- Early history (1820-1900): 'gentlemen (and a few women) scientists' (often in part as members of statistical societies, social reform institutions or as 'commissioners') developing statistically-based studies or extensive reports on social matters both domestically and internationally;
- Development phase (1890-1930s): statisticians and academic sociologists involved in first-hand study of people and social contexts, with some formal development of methodologies;
- World war ii and post-ww ii consensus (*1930s*-1980s) more formal development of data-collection and analysis methodologies and pedagogies, with an emphasis on a broadly positivist approach, but supplemented with exploratory and qualitative research methods, developed largely by specialist methodologists employed within academic sociology departments and (both academic and non-academic) applied social research centres (including survey research units and more generally social statistics developments), and
- The contemporary situation (1970s- present): extension of 'mainstream' social research methodologies to cover more cultural, feminist, participative and historical aspects of social research methodologies, morphing into a more balanced framework of 'mixed methods' by academic methodologists (situated not just within academic sociology departments but across the full array of social sciences, although differential disciplinary emphases remain) who now collectively share 'ownership' of the range of social research methodologies, with supportive nurturing from specialist methodology journals and other infrastructural props.

1. The range of Modes of Investigation

To situate the later historical account this section presents a typology of research methods and indicates some of the issues that arise concerning the choices along these dimensions. Attention must be drawn to the need for an appropriate terminology for those being researched. In earlier eras 'political correctness' was not in vogue and somewhat derogatory terms were used – e.g. 'natives' (although this sometimes continues to be used in a more generic and somewhat ironic fashion), and for a long time 'research subjects' has been common, perhaps now 'research participants' is more appropriate. Whatever the (changing) terminologies used, there clearly is an underlying concern about the relationship (including the power relationship) between the researcher and those researched.

Over time a wide range of SRM (either data-collection or data-analysis methods, sometimes spanning both) have developed, often with their own terminology and peculiarities. These can be broadly classified by at least four main methodological axes:

- The extent to which the effects of 'causality' are isolated in terms of research design;

- The extent to which the data collection method is intrusive in terms of those researched*;*
- The size of sample and/or range of sites covered;
- The extent to which quantitative or qualitative data is collected and/or analysed, and;

In addition, there are other features which relate to the context within which the research is carried out (e.g. applied v academic contexts*).*

Features of Research (i.e. 'Experimental') Design

Any research project falls somewhere on a continuum stretching through:

- Controlled experiment
- Quasi-experiment
- Longitudinal Design (where the same participants are measured in each wave)
- Trend Design
- Cross-sectional study
- Naturalistic (descriptive) field study.

At one end of this continuum, 'causal effects' are seen as best detected through rigorously controlled experiments with subjects randomly assigned to treatment and the control groups. Somewhat more relaxed versions allow the virtues of experimental design to be partially applied, while better adjusting the research to real-life situations. At the other end of the continuum lie naturalistic field studies which may provide richly layered descriptions of people's meanings, but are poor at isolating threads of causal influence.

Sometimes this continuum is expressed as a hierarchy with one pole being nominated as providing the 'gold standard'. For example, vocabularies to rank studies by the quality of their evidence have been developed, such as that developed by the U.S. Preventive Services Task Force for ranking evidence about the effectiveness of health treatments or screening:

- Level I: Evidence obtained from at least one properly designed randomized controlled trial.
- Level II-1: Evidence obtained from well-designed controlled trials without randomization.
- Level II-2: Evidence obtained from well-designed cohort or case-control analytic studies, preferably from more than one centre or research group.
- Level II-3: Evidence obtained from multiple time series with or without the intervention. Dramatic results in uncontrolled trials might also be regarded as this type of evidence.
- Level III: Opinions of respected authorities, based on clinical experience, descriptive studies, or reports of expert committees (in sociology this would include drawing on the personal experiences of the researcher).

However, such a standard is problematic, at least outside any contexts where the aim is not to assess the evidence for the effects of an intervention**.** Other methodologists have argued that only in-depth face to face interviewing and observation (especially of body language) allow the adequate collection of meaningful data to be accomplished.

Continuum of Intrusiveness of Data-Collection

- Unobtrusive RM
- Observation/ Simulation
- Participant Observation/ ethnography
- Semi-structured/ Mixed Methods
- Quantitative survey/Census
- Experiment/ Action research/ Ethnomethodology (e.g.: 'Breaching experiments' in which participants understandings of situations are strongly challenged by highly unorthodox behaviour by the researcher.)

A somewhat overlapping dimension concerns the extent to which the researcher intervenes in the situation studied. (Such intervention is however not only in order to impose a tight experimental design). At one end information is collected and analysed beyond the purview of those in the situation, or who have produced the data, whereas at the other end of the continuum the subject is caught up in a contrived situation in which the researcher is playing a very active and dominant role. Even interview surveys are at least mildly intrusive, especially in social contexts where the research subjects are less powerful or less experienced in dealing with being asked to express personal opinions to 'strangers'. One difficulty with intensive intrusion is that it limits the generalisability of the findings to wider settings.

Size

- Single Case study
- Small
- Medium
- Large
- Full census

While it is clear that studies vary in size it is not possible to deploy anything other than a fairly arbitrary set of categories to describe this. Most (i.e. 'normal distribution' based) statistical procedures can only be applied with samples of medium size or above. A recent area of development has been in the application of small sample statistics to small samples involving set-theory and/or fuzzy-set analyses of social data (Qualitative Comparative Analysis (QCA) and Fuzzy-Set/ Qualitative Comparative Analysis (fsQCA)). At the other extreme lie official population censuses where only a few items are collected from everyone in an administrative jurisdiction. The dimension of size is crucial in thinking about a study since usually a researcher (given the same set of resources) is faced with a trade-off between collecting a lot of information about a small number of cases or a little information from many cases.

Quantitative/Qualitative

- Quantitative
- Mainly Quantitative
- Mixed methods
- Mainly Qualitative
- Qualitative

While some studies collect and analyse strictly quantitative (numeric) data, at the other end of this continuum some collect/analyse only qualitative (textual or subjective data about meanings) data. However too often this continuum is unnecessarily seen as being dichotomised – rather, there are several possibilities of less stringently homogenous data lying in-between, including switching treatment of the data between the modes of collection and analysis. Many data-collections include both: for example ethnographers often include counts of appropriate events and activities. It is argued that whereas qualitative approaches are better at capturing some sorts of more meaningful information, quantitative is needed to provide generalisability. Mixed methods is an explicit approach drawing on both qualitative and quantitative data and triangulated each alongside the other.

More Specialist Aspects

- Content analysis, discourse analysis, analysis of internet/web material
- Meta-analyses and Systematic Reviews
- Comparative/Historical
- Social Impact Assessment/Evaluation studies
- Programme evaluation
- Enviroment scans, needs assessments etc.
- Secondary analysis and the use of data bank or archive material.

Some SRMs are particularly attuned to particular subject-matters. For example, content and discourse analyses treat texts. Comparative/historical studies draw on broad-scale data. More generally, SRMs need to be adapted to the level of social reality being studied, with sociologists rather more concerned with ways of effectively studying large-scale societies – but also the minutea of micro-settings. Meta-analyses are particularly directed towards assessing the cumulative knowledge in a particular area. There are a variety of applied social research methods some of which have a social forecasting posture whereas others are concerned to measure the effects of programmes already delivered.

Synopsis:

Two polar opposite types of social research methods are often postulated.
Field observational research ‘doing ethnography’ requires the investigator to be directly involved with the human behaviour they study: sometimes including an emotional and/or normative attachment. However, in addition supplementary information collection is included. Underlying this approach is a ‘humanist’/ ’interpretivist’/ ’social

constructionist' epistemological approach which emphasised the subjective human qualities of social life.

In contrast, 'positivist' social research is considered to be driven from a value-free detached position deploying *a priori* pre-developed theoretical models and hypotheses with data being collected under scrupulously rigorous data collection procedures (with suitable information on error estimation) and with a solid concern for generalisability that yields (amongst other requirements) the need for large sized samples. Scientific surveys on carefully constructed samples with careful standardised interviewing procedures is one polar example and another is tightly controlled small-scale experimentation. Underlying these is a 'positivist' epistemological approach, although this is often relaxed in a 'post-positivist' approach that recognises some of the in-built limitations of the more extreme version.

However, this polar contrast hides the complexity of the range of SRM which the above multi-dimensional typology attempts to display. Besides, there is room in-between the two polar opposite approaches and over more recent decades 'mixed methods' research, often deploying 'triangulation' has become popular as it promises to bring to bear the best of both worlds.

Having set the scene in terms of the range of possible methodologies, the remainder of this chapter traces the historical development of SRM.

2. Pre- History of SRM

Governments have long conducted censuses to collate facts about their people, particularly their number, fighting capacity or taxation potential but also sometimes voting rights. Ancient censuses were also carried out by the Chinese (4000 years ago and since), Egyptians, Greeks, Japanese, Persians, and Romans. The regular 5-yearly Roman census (under the Republic) involved very considerable attention to the details of the social position of each of the free adult male citizens being publicly investigated and classified. In Medieval times there were episodic collections of information – such as the English *Domesday Book* of 1086.

As early as the 1660s, interest in social numbers emerged alongside early developments in natural science. Early members of the Royal Society of London included William Petty (whose 'political arithmetic' included estimates of population and wealth) and John Graunt (who empirically investigated patterns in the London bills of mortality). Slightly later, Jan de Wit used rudimentary probability theory to assign rates for the sale of annuities, refined further by the English astronomer Edmond Halley who developed the first mortality table (which provides aggregate information on people's life-spans).

Political arithmetic flourished in the eighteenth century, based on the compiling and analysis of demographic and medical records which began (albeit highly unevenly) to accrue. 'Probability theory' was also developed and was extended across thinking concerning other social realms, including the work of French *philosophe* Condorcet. This broad approach undercut earlier emphases on deterministic social causation that was seen as flowing from set-in-concrete social arrangements and opened up the

possibilities of room for ‘chance’ and also ‘free will’ of people.

In Germany, various universities hosted a shifting group of learned disciplines for training state officials in the administration and reform of society, which variously included subjects such as economics, public statistics, politics, public administration, finance, state law, agriculture, forestry and mining and was taught under the rubric of ‘cameral science’ and later the ‘sciences of state’.

From the end of the eighteenth century censuses were begun in French Canada (1666), Denmark (1700) Sweden (1749) and the United States of America (1790) and as this practise became more widespread it was a major means of obtaining information on populations and for researching important aspects of them. Censuses were encouraged in Europe by French military conquest and its accompanying Napoleonic revolutionary social imagination and by the pressure of wartime mobilization. In the UK the census was begun in 1801 overcoming resistance by landed gentry and superstition but fuelled by the need to ascertain military manpower availability during the Napoleonic Wars and by the concerns raised by Malthus’s essay on population over-growth. As well, the social classifications developed by census officials were often important reflections of the internal hierarchical organisation of society which in turn acted back to some extent in shaping the society.

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Biographical Sketches

Charles Crothers is Professor of Sociology in the Department of Social Sciences at AUT University, New Zealand, after previously serving as a Professor of Sociology at the University of Natal, Durban, South Africa. Prior to this position Charles had lectured in the Departments of Sociology at the University of Auckland, and Victoria University and had been President of the New Zealand Sociological Association and held office in the History of Sociology Research. Committee of the International Sociological Association. His interests span: Sociological/ Social Theory (with books on the work of Robert K Merton, and the conceptualisation of Social Structure); Social Research Methodology/methods; sociology of Science and Social Science: and studies of New Zealand (Auckland in particular) and South Africa**.**

Jennifer Platt came to Sussex in 1964 as a lecturer after taking an MA in Sociology at the University of Chicago and working on the 'Affluent Worker' project. She retired formally as a professor in 2002, but remains active in her own research. Her interests are in aspects of research method, and in the history of sociology, including its research methods and its social institutions. She has been active in the British Sociological Association, serving as editor of its journal *Sociology* and as its President, and her history of

the BSA was published in 2003. She has also been active in the International Sociological Association, serving as a member of its executive for 8 years and as book review editor for its journal *International Sociology*, and writing its official history. She is an academician of the Academy of Social Sciences.