

# The SAGE Dictionary of Social Research Methods

## TRACE MEASURES

Contributors: Pamela Davies

Editors: Victor Jupp

Book Title: The SAGE Dictionary of Social Research Methods

Chapter Title: "TRACE MEASURES"

Pub. Date: 2006

Access Date: October 17, 2013

Publishing Company: SAGE Publications, Ltd

City: London

Print ISBN: 9780761962984

Online ISBN: 9780857020116

DOI: <http://dx.doi.org/10.4135/9780857020116>

Print pages: 303-305

This PDF has been generated from SAGE Research Methods. Please note that the pagination of the online version will vary from the pagination of the print book.

# Definition

Alternative methods by which social activities or phenomena can be examined and quantified in non-reactive or unobtrusive ways.

[p. 303 ↓ ]

# Distinctive Features

Trace measures are usually physical traces of past behaviour often synonymous with unobtrusive measures and non-reactive measures, all of which refer to alternative and often imaginative units of measurement. According to Webb et al. (1966), who first documented the use of unobtrusive measures and nonreactive research in the social sciences, these forms of data amount to proxies which 'are not specifically produced for the purposes of comparison and inference, but are available to be exploited opportunistically by the alert investigator' (Webb et al., 1966: 36). Trace measures are therefore approximations to knowledge and might include hidden observation, contrived observation, trace analysis and secondary records.

Distinctively, trace measures, as vestiges or remaining marks of the presence or existence of something, are often cheap and simple indices or signs that can be used as ways of closely monitoring social activities. There are two main types of physical traces of past behaviour, these being natural erosion measures and natural accretion measures. Where physical traces manifest themselves as wear and tear of materials, these are erosion measures. Where they are deposits of materials such as debris, inscriptions, marks, remnants or other indicators, these are natural accretion measures.

Unobtrusive measures, or trace measures, can be valuable sources of data and evidence in the social sciences. No matter how sophisticated and expensive the methods of measurements adopted by the researcher, they are often criticized for being insufficiently sensitive to measure with enough precision and detail, especially in terms of time, place and circumstance. Take, for example, the context of crime and disorder. Despite the 'data explosion' in terms of information derived from both police crime

figures and victimization surveys, some critics claim that specific local patterns, trends and demographics of crime and disorder remain insufficiently detailed for focused action to be based upon them (Garwood et al., 2002). In order to generate this level of detail, these authors have suggested 'sneaky measurement of crime and disorder' and have discussed several examples from this area of social research. Some of their suggestions as regards modern measures or traces of crime and disorder represent the realities of the street, store and club. Thus signs of disorder and incivility might include an Alcopop bottle in a town centre litter bin, shards of glass outside a specific nightclub and used hypodermic syringes in a public park.

## Evaluation

As they are not specifically produced as social scientific data, there are several key advantages of physical evidence data. They are not only relatively easy methods of determining long-term change at low cost but their very inconspicuousness as units of measurement ensures they are relatively free from bias; in other words they are 'free of reactive measurement effects' (Webb et al., 2000: 50). Furthermore, gathering data and evidence by means of physical traces often involves imaginative and unconventional approaches to research and can make available data in content areas where verbal reports are otherwise unavailable, invisible or unreliable. Thus they can be an asset in terms of accessing some hard-to-reach populations or groups.

Whilst there are clear advantages to the use of trace measures in the social sciences there are perhaps greater advantages in employing them alongside, or in consort with, more traditional methods. In most cases, trace measures are simply signs or indices of activity or behaviours, approximations to knowledge that cannot usually be taken alone as evidence of an actual state of affairs or as absolute evidence. In some contexts, and when used alone without triangulation of methods or combining with supplementary obtrusive and reactive techniques, physical evidence data may remain largely anecdotal. There are other specific reasons to be cautious of the use of trace measures, including the problem of selective survival of materials over time and across space affecting the ability to generalize findings as well as the risk of there being a high 'dross [p. 304 ↓] rate'. Finally, for some there remain significant ethical problems with the use of trace measures. These ethical dilemmas are similar to those that arise when

conducting covert or hidden and unobtrusive research more generally, namely collecting data about individuals without their knowledge and consent.

Pamela Davies

*Associated Concepts:*

Key Readings

Garwood, J., Rogerson, M. and Pease, K. (2002) 'Sneaky measurement of crime and disorder', in V. Jupp, ed. , P. Davies, ed. and P. Francis (eds), *Doing Criminological Research*. London: Sage. pp. pp. 157–67.

Webb, E. J., Campbell, D. T., Schwartz, R. D. and Sechrest, L. (1966) *Unobtrusive Measures*. Chicago: Rand McNally.

Webb, E. J., Campbell, D. T., Schwartz, R. D. and Sechrest, L. (2000) *Unobtrusive Measures*, rev. edn. London: Sage.