

Thomas R. Black. *Evaluating Social Science Research: An Introduction*, London, SAGE Publications, 1993, p.183.

Most social science books seem to give a lot of attention to the nature of social science research and how to undertake them. Black in his book *Evaluating Social Science Research: An Introduction* addresses the question of evaluating social science research reports. Reading the book one recognises, and indeed appreciates that it is not enough to know how to design and carry out social science research. One needs to know how to read critically and evaluate research reports, conference papers and journal articles. This theme is the core of the book.

The concept of critical reading of works is not as developed in the social sciences as it is in art (Literature and fine art for instance). Literature has people specially trained (critics) to subject literary works to critical evaluation. Along these lines Black's book can be viewed as a guide for social science 'critics' in that it aims to enhance readers' understanding of research works and their ability to discover strengths and weaknesses embedded in the works. With the academic community engulfed in publish or perish syndrome, critical evaluation is necessary to separate the wheat from the chaff'. Black lays down this mission thus:

the consumer of reports should learn to be critical without being hypercritical and pedantic, able to ascertain the important aspects, ignore the trivia and, to certain extent, read between the lines by making appropriate inferences. The ability to identify true omissions and covert commissions of errors is a valuable skill (1993:4).

Black outlines the major issues in evaluating social science research in the following questions:

1. Are the questions and hypotheses advanced appropriate and testable?
2. Is the research design sufficient for the hypothesis?
3. Are the data gathered valid, reliable and objective?
4. Are the statistical techniques used to analyse the data appropriate and do they support the conclusions reached?

The themes underlying these questions run through the whole book.

The book is organised into eight chapters. It begins with an overview of evaluating social science research. Chapter two discusses how to evaluate research questions and hypotheses highlighting the importance of sound research questions and good hypotheses. In chapter three Black considers the evaluation of representativeness which is an important springboard for generalisation. In this regard, he poses the question for 'what group will the conclusions be justifiably relevant'? Black considers data quality in chapter four. This is examined in two ways; first, how one judges the range and

relevance of variables for which data are collected and second, the quality of the actual measuring instruments used to collect the data. Chapter five deals with descriptive statistics showing how one can critically read frequency data, charts and graphs used in research reports and determine whether they are used correctly or not. Chapter six and seven discuss evaluation of statistical inferences involving correlational and experimental designs. In the last chapter evaluating conclusions is discussed.

In the book well framed research questions (specific and clear) are viewed as guides to the research effort. Black observes that:

if the original question or hypothesis is weakly stated, then it is much easier to ignore evidence that contradicts the research team's, and there is a danger that they will find what they want to find (1993:26).

With regard to representativeness Black poses a pertinent question: Are samples typical such that they can appropriately represent the population? Since it is not always feasible to obtain data from whole population the researcher 'must depend on the vigour of sampling process to justify representativeness of the sample' (p.44). The way samples are drawn is therefore critical for representativeness.

Black presents criteria for evaluating variable significance, validity, reliability and objectivity of data. He contends that the type of data collected will eventually determine the kind of descriptive and inferential statistics suitable to them.

Graphs and charts can be deceptive. Black illustratively shows that too few or too many class intervals will produce deceptive graphs and charts. He, for instance, observes that presenting a graph where the 'vertical frequency axis does not start at zero is an approach commonly used to exaggerate differences' (1993:98).

The author also points out that statistical tests do not necessarily suggest relationship, statistical tests only tell whether the result could have occurred by chance or not. This is an important caution in the interpretation of statistical tests as is inexperienced researchers often tend to read into statistical tests cause-effect relationship. He illustrates this point thus: *there is a high correlation between age and height for a range of ages of children, but neither one causes the other* (1990:130).

The importance of choosing the appropriate statistical test is emphasised:

choosing an appropriate test is often a matter of matching the tests to the type of data and, for parametric tests, making sure that all the assumptions have been met. There is the danger of degradation of data by using 'lower' tests by considering intervals as rank ordered data and using non parametrics. This can increase the risk of making a type II error, not finding significance where it is really there (1993:160).

On evaluating conclusions of research reports, two aspects seem to feature prominently in the book. First, conclusions being drawn on relevant data and second, justification for the conclusions. The argument of the author is that 'the main criticism is usually not whether the conclusion is right or wrong, but the strength of the support provided, which includes how well the researcher has justified the conclusions' (1993:11). This conviction probably stems from the acknowledgement in the book of a common weakness in research reports — inappropriate conclusions for data or even no conclusions drawn, only description of data and process.

One may, however, find Black's strategy in the 'overview' of beginning with the last 'action' (stage) i.e. data analysis and conclusions and, proceeding backwards to the statement of the overall question as an impediment to the understanding of evaluation holistically. Some readers would probably find it more fruitful if the presentation in the 'overview' as well builds up climaxing in the 'action' of data analysis and drawing conclusions.

Evaluation of tables could be considered a serious omission in the book under review. Most research works utilise various types of tables and thus skills in evaluating them are critical.

It is also important to note that although in the preface Black indicates that his work disregards the normative/non-normative distinction his presentation in the text exhibits strong quantitative orientation. This is reflected in the emphasis on hypotheses, quantification of measurement and statistics. Thus one gets the impression that a title like 'Evaluating Quantitative Social Science Research: An Introduction' would be more specific.

The disregard of the normative/non-normative distinction suggests that Black assumes that in evaluating quantitative and qualitative social science research there is little difference. A closer look at research reports written in either tradition, however, suggests otherwise.

Nonetheless several strengths stand out in the book. First, the subject matter — evaluation of social sciences research, which has had little attention in the social sciences. Second, simple presentation, well illustrated with relevant tables, graphs and examples which make it readable. Third, boxed activities that guide the reader through practical evaluation of phenomena relevant to specific stage or aspect of research process and reports. Fourth, at the end of each chapter Black provides (for photocopy) condensed profile sheet for evaluating specific aspects of research reports. For example, a profile sheet for evaluating research questions and hypotheses.

The book is written for social scientists and educationists. Postgraduate students, university teachers as well as journal and book editors will find it useful. As the book does not assume prior statistical knowledge, it will assist readers with little statistical background or training develop a critical eye in reading statistics-based research reports.

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