computationally simpler approaches such as penalized quasi-likelihood that behave very well when analysing count data (see, for example, Ugarte *et al.* (2009)).

The rest of the chapters (Chapters 4–9) have the same structure. They start with a data section describing the data and the notation used. The next section states the null and alternative hypothesis of the statistical tests proposed. A historical overview of some methods existing in the literature is given in the next section. The 'Selected methods' section is useful as it discusses the methods which the author thinks are widely known or widely used. In the next section real data are analysed by using these selected methods. A 'power comparison' and a discussion section follow to compare the various methods.

The particular content of these six chapters is briefly described in what follows. Chapter 4 deals with the problem of detecting disease clustering in time. The problem of detecting disease clustering in space on the basis of regional count data is treated in Chapter 5. General tests for detecting disease clustering in space but now based on case–control data are discussed in Chapter 6. Space–time clustering is the topic of Chapter 7. The tests for space–time clustering that are described in this chapter are designed for evaluating whether cases tend to come in groups or are located close to each other no matter where they occur.

Focused tests designed to examine a raised risk of disease around putative sources are explained in Chapter 8. The last chapter deals with space–time scan statistics designed for both detecting localized clusters and evaluating their significance. One of the methods selected in this chapter called the cylindrical space–time scan statistic (Kulldorff, 2001) has been implemented in surveillance systems as a major tool for the detection of outbreaks. Readers will find it useful to know that the book also contains information on the existing software for implementing the procedures.

The topics presented in this book constitute an important part of the area known as spatial epidemiology. Although I found the content of the book very useful for epidemiologists and public health researchers, I think that the author could have included a detailed discussion to clarify the distinction between clustering, cluster detection and spatial variation in risk. The distinction between these three topics is often fuzzy. I recommend Elliot *et al.* (2000) as a companion book that will help to clarify this distinction and to enlarge interesting discussions on this fascinating field.

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Statistics in Plain English

Statistics in Plain English opens with some anecdotes from Dr Urdan's life, corroborating the idea that

> 'many people have a general distrust of statistics, believing that crafty statisticians can make statistics say whatever they want'

(page ix) and with the suggestion that

> 'a better option is to gain an understanding of how statistics work and then use that understanding to interpret the statistics one sees and hear for oneself'

(page ix). This book tries to help the reader who is motivated to gain such an understanding by providing a simple and accessible discussion of the statistics that are most commonly employed in social science research.

Chapter 1 is a concise but effective introduction to research terminology and study designs. Chapters 2–5 discuss measures of central tendency and variability and the normal distribution. Chapter 6 is dedicated to the standard error, which is a concept that

> 'is often difficult to grasp the first time it is encountered (or the second or the third)'

(page 49). Chapter 7 explains the concept of 'statistical significance' and contrasts it with the concept of 'practical significance'. This leads to a superb discussion of effect size and confidence intervals. This chapter will offer to statistical novices a much needed immunization against the misuse of statistical significance which is so common in practice. (Subsequent chapters on statistical tests will improve the immunization rate by repeatedly making clear this concept with practical examples.) Chapters

8–10 discuss correlation, the *t*-test, analysis of variance (ANOVA) and factorial ANOVA. These chapters are not only easy to understand but also their simplicity does not imply a lack of rigour, also on the mathematical side. Clearly, some choices must be made when presenting mathematical details to novices, e.g. showing ANOVA calculations only for groups of equal size. However, there is always a surprising fluidity of both the reasoning and the writing, possibly helped by the fact that the book has undergone three editions and repeated tests on students. Chapter 11 is on factorial ANOVA and contains a brilliant discussion of the controversies surrounding the interpretation of main effects in the presence of significant interactions. (I may be asking too much here but I was so impressed by the clarity of this chapter that I consider it a pity that the potential drawbacks of type III sums of squares were not mentioned.) Chapter 12 discusses repeated measures ANOVA. Although the mathematical details are by necessity fewer than in previous chapters, there is again no loss of rigour and a clear example will help the reader to understand the use of this test to separate between-subjects from within-subjects effects. Chapters 13 and 14 discuss regression and the χ^2-test with no less clarity than the previous chapters. Chapter 15, which is a new addition to the third edition, describes factor analysis and reliability analysis because of their central role in social science research.

Statistics in Plain English has an associated Web site (`http://www.psypress.com/statistics-in-plain-english/`) but only teachers who

'have officially adopted [the book] as a required text for a course'

will apparently be able to use the most interesting on-line resources. I say 'apparently' because, as a teacher of medical statistics who must prefer other (not necessarily better) books for his courses, I did not qualify for access to such resources.

In my opinion, *Statistics in Plain English* fully reaches its aim of

'mak[ing] it a little easier to understand statistics'

(page ix). To quote Albert Einstein, Dr Urdan has not incurred the risk of making things simpler than they should when trying to make them simple. This book will be an excellent first choice for students or researchers 'starting the journey into the realm of statistics' (page 181) but it will be also a great second choice for the many who have found this journey too intimidating the first time they tried it.

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