Individual Differences (2nd Edition)

Colin Cooper

ISBN: 0340808160

The book is the second edition of a textbook for personality and individual differences. It covers not only personality theories but provides also extensive information on psychological testing and the assessment of individual differences.

Covered are Kelly and Rogers, Freud, trait theories, biological and social bases of personality, and environmental and genetic determinants of individual differences. Rather than giving an historical overview of various personality theories, the content was selected with regard to existing empirical evidence and interesting developments. The coverage remains nevertheless unusual in places: for example, only two and a half pages are dedicated to the Big Five but an entire chapter deals with a collection of traits like sensation seeking. Unlike other books in the area, Cooper includes chapters on broader personality topics such as intelligence, cognitive processing, mood and motivation.

On the methods side there are chapters on measurement in general, reliability and validity, two chapters on factor analysis, test construction and problems with tests. Apart from the representation of classical test theory there is also a chapter on item response theory which is truly an unusual addition for a general personality textbook.

The book is structured in 19 relatively short chapters. The chapters include an introductory background section and a summary. The text is well written and throughout the book there are references pointing to other relevant sections in the book. There are also various self assessment questions for the reader and answers to those questions at the end of each chapter. The book also provides a subject and an author index. The new edition has its own webpage www.individualdifferences.org with additional resources and the opportunity to contact the author.

The revisions for the second edition include the elimination of the clear division in Section A (theories) and B (assessment), the second; evaluative, Freud chapter has disappeared and an interesting chapter on trait stability over time has been added.

The book is primarily aimed at individual differences modules for undergraduate psychology students. It is useful as a textbook for many personality courses by covering the assessment of individual differences as well as traditional personality theories.

Reviewed by Susanne Hempel, Centre for Reviews and Dissemination, University of York

The Social Psychology of Behaviour in Small Groups

Donald C. Pennington

ISBN: 0415230993

Pennington's The Social Psychology of Behaviour in Small Groups is a recent addition to the Psychology Focus series – a collection of short books on key topic areas in psychology which aim to support students taking modules in psychology and combined programmes. One of the main requirements of books included in this series is that they assume no prior knowledge of psychology. Donald Pennington has achieved this by writing a very readable text which could be used to support lower level courses in social psychology and more specifically units on small groups.

Despite a rather frustrating editing error where the section numbers which the author frequently refers to in the text are not printed next to section headings, the overall accessibility of the book will make it a popular read with students. The lively style of the book will hopefully spark their interest enough to encourage them to read more broadly around the topics covered. There is good use of figures to support theoretical models and the visual presentation of data is useful for conveying research results. In addition, each chapter ends with a summary which reinforces the key learning
The book consists of seven chapters which cover a range of topics relating to the theory and applications of small groups, primarily in organisational settings. The opening chapter sets the context for the book and the author takes the time to carefully define small groups and aspects of group membership. These terms are made salient through the use of mental exercises which encourage the reader to draw on their own experiences of groups and to apply the concepts to practical examples. The chapter also touches on issues such as communication in groups and reasons why people join groups.

Chapter 2 offers a useful consideration of issues relating to the measurement of behaviour in groups, pointing out the difficulties that such research entails and the issues that need to be taken into account when thinking about research design. Pennington’s coverage of both Bales’ Interaction Process Analysis (1950) and SYMLOG (Bales and Cohen, 1979) further underlines the complexity whilst at the same time showing how some methodological issues have been successfully tackled. But this chapter is narrow in scope to the extent that it covers only observational techniques and doesn’t consider other ways of measuring behaviour in small groups.

Chapter 3 introduces the reader to the debate relating to the effectiveness of groups compared to individuals, an issue to which the author returns briefly later in the text. It also considers the circumstances under which group member performance may be either enhanced or impaired. This chapter is generally well handled, particularly the section on social facilitation in which Pennington considers the various theoretical explanations of this phenomenon and how the different perspectives can be considered as part of a broader framework for understanding. This is well supported with figures representing the key aspects of the theories presented.

Chapter 4 looks at how groups develop over time, group socialisation and group structure. Included in this chapter is a consideration of a range of issues such as group size, cohesion, group norms and roles. This is perhaps the weakest chapter, which lacks the depth necessary to facilitate good understanding of the issues covered. Also I felt the integration of the issues covered in this chapter could have been improved. For example, Pennington quite rightly discusses the importance of group size, raising the point that it is an often ignored area of small group discussion in texts. However, at the end of the chapter, when putting together the other aspects of group structure covered in the chapter, he does not include group size himself – a strange oversight given his recognition of its absence elsewhere.

Chapter 5 considers issues of cooperation, conflict and social influence within groups. Good coverage is given to the topic of social dilemmas in which the concept is explained and well illustrated through everyday examples. This is followed by a discussion of conflict in groups, with a specific focus on conflict resolution. The chapter ends with a consideration of bargaining and negotiation in groups covering aspects of both majority and minority influence.

Chapter 6 looks at leadership in small groups. In this chapter the author offers more in-depth coverage of theoretical perspectives than elsewhere in the book. Key theories of leadership and leadership effectiveness are introduced together with the relevant research that has investigated each theory. The chapter also includes a consideration of both gender and cross cultural issues relating to the qualities of leaders and to perceptions of effectiveness.

In the final chapter of this text the author looks at theory and research on both individual and group decision making. I felt that given the purpose of this book the inclusion of a section on individual decision making was out of place. The presence of this section led me to believe that it would be drawn on later in the consideration of group decision making. However, this link was not made and therefore I would have preferred to have seen it excluded with greater coverage and depth on group issues either in this or earlier chapters.

Despite it being an introductory text, this book doesn’t provide enough coverage of issues. For example, I was surprised to see no mention of Steiner’s (1972) historic work on process losses in the chapter on individuals versus groups. Nor does the author always allude to the complexity of many issues relating to the study of small groups which can be found when considered in more detail. For example, the coverage on cohesion doesn’t mention the questions that have been raised with regard to the directionality of the link between performance and cohesion. Therefore, I felt that although the book did meet its objective of providing a text that assumes no prior knowledge of psychology, some chapters did not provide sufficient depth to make the book an essential text. Pennington himself clearly recognises this and at the end of each chapter directs the reader to other good sources for further explanation and coverage. Overall, I would see this book as offering an introduction to behaviour in small groups that would need to be supported by other texts in order to develop greater awareness and understanding of the issues covered, and indeed those not covered at all.

REFERENCES

Reviewed by Jane Prichard, Department of Psychology, University of Southampton
**Psychology and Crime**  
*David Putwain and Aidan Sammons*

Hove: Routledge, 2002. 200 pages (£14.95 paperback)  
ISBN: 0415253004

*Psychology and Crime* is part of the Routledge Modular Psychology series and is aimed predominantly at A-level students studying the Criminological Psychology option. The text covers a wide range of topics. The nature and measurement of offending includes a section on victimisation and issues such as, fear of crime, locus of control and belief in a just world.

The Biological oriented explanations of criminal behaviour chapter focuses predominately on genetic influences but does also mention Eysenck’s personality theory. The Psychologically oriented explanations of criminal behaviour chapter includes psychoanalytical theories of crime (with a particular focus on Bowlby) as well as the more common focus on learning, cognitive and social explanations. The chapter on the police focuses exclusively on interviewing (both of the offender and the witness). The Offender profiling chapter compares British and American profiling research and techniques. The psychology of testimony chapter focuses predominately on the issues surrounding eyewitness memory and face identification. The psychology of the courtroom details the issues involved with juries and trial processes; interestingly there is also a brief discussion of child witnesses tagged onto the end of this chapter. Finally, Punishing, treating and preventing crime briefly covers imprisonment, alternatives to imprisonment, psychological interventions (e.g. token economies) and crime prevention techniques (e.g. zero tolerance).

The topics covered are comprehensive, although no topic is covered in depth. This is very much a brief, albeit thought-provoking, introduction to the area. One of its strengths is the way the text weaves other areas of psychology into the forensic domain, clearly demonstrating its applied nature but also its varied theoretical roots. It might have been improved further had the authors also drawn together some of the ideas within the different areas of the book. At present, the sections of the book stand as interesting snapshots, rather than a coherent picture. The artificial division of biological and psychological theories highlights this. Whilst this is a common distinction (usually referred to as nature versus nurture), this artificial distinction tends to result in students’ forming a distinct dualism between the two and as such does little for students understanding of the interaction between genetics, mind, brain and behaviour.

The book has numerous features to aid learning. These include review exercises throughout the chapters. At the end of each chapter there are also chapter summaries, although it would have been helpful to have interesting questions at the beginning of the chapters to give students an idea of what information they would be expected to know from the chapter. Following the chapter summary is also a further reading list. Such a list is always helpful, although nearly every chapter cites one of two textbooks (and sometimes both books) by Peter Ainsworth, leaving the reader to wonder if those books would have been a better purchase than the current text. At the end of the book there are useful summaries of key research studies, a glossary of terms and practice answers including a commentary on how to achieve higher grades. The practice answers were particularly interesting in that there is feedback from the examiner, but the quality of the feedback varies. Thus, for some questions there is clear, specific information on how to improve on the answer given, but for other questions the examiners report is decidedly more vague.

In summary, this is a very good basic introduction to forensic psychology that is well targeted at A-level students. It is likely to be most useful for this group, although undergraduate students may also appreciate it as a concise introduction to the area. Indeed, if an undergraduate student was wondering whether to take a criminological psychology subject, this book would serve well as an introduction to the topic.

Reviewed by J. Clare Wilson, Department of Psychology, University of Kent

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**Sport Psychology: The Key Concepts**  
*Ellis Cashmore*

ISBN: 0415253225

Sport Psychology, as a coherent whole, is a relatively new discipline. Part of the evolution of any new discipline focuses on the accumulation of relevant literature, the banding together and evaluation of past and current research, and the establishment of boundaries that define the discipline itself. One consequence of this newness is that there is a relatively small (but steadily growing) body of texts available. It was with some enthusiasm then that I approached Professor Cashmore’s new book.

The book, as Cashmore informs us, is not a dictionary, not an encyclopaedia, and not an A-Z (although it is described as an A-Z guide on the back cover). What then is its purpose? Well, it attempts to both identify a set of ‘key concepts’ within sport psychology, and to give these concepts ‘a more explicit technical
meaning’. After a succinct and engaging introduction, the key concepts are listed alphabetically beginning with ‘achievement ethic’ and ending with ‘zone’ (over 160 entries in total). Each concept is explored with a view to clarifying the terminology and enhancing our understanding. A suggestion for further reading is also included after each entry. These suggestions are a valuable tool for the interested reader and point to a diverse selection of written material, drawing on journal articles and texts. The design allows the reader to dip in and dip out as required.

The selection of concepts has been left solely to the author. It is his decision as to what constitutes key and Cashmore succeeds in capturing an extensive (although not comprehensive) range of important concepts. Prospective readers should note that, depending on the level of engagement one has with the discipline, there may be some omissions.

The exploration of the concepts is concise; the writing style is engaging and easily understandable without being patronising or simplistic. One of the potential pitfalls in books of this type relates to the issue of depth – in terms of explanations of concepts, how much information constitutes enough? The answer may lie in the needs of the intended audience for such a book. As a tool for the keen enthusiast, the sports fan, the browser or simply the moderately interested, this book provides a sufficient amount of relevant material, clearly expressed and accessibly laid out. It recognises sport as a globally-experienced phenomenon and uses examples from a diverse range of sports to illustrate the key concepts (this is not to be underrated, as many of the texts in the discipline seem to use the American sport experience as the benchmark for scientific exploration).

As a text for the graduate or undergraduate one has to be slightly more cautious. I would distance myself from the claims on the back cover that the book ‘is an essential resource for all those with an interest in sports’. That it is a useful resource is not in question. I believe that it is well written, well intentioned, and contributes positively to the growing body of literature available in the field of sport psychology. The depth of exploration is understandably limited and one would hope that students of sport psychology would have, at their disposal, a range of more in-depth resources that meet their academic needs. In this context, the book cannot be regarded in any way, shape or form as a primary text (I suspect that Professor Cashmore would be the first to agree). It could however, be a useful reference tool, a quick and user-friendly resource to be used to inform discussion, or a source of illumination when one’s memory is temporarily dimmed.

At the graduate or undergraduate level the usefulness of this text lies in its relationship with other texts and written material within the discipline. At the graduate or undergraduate level it would, I feel, sit comfortably alongside Cox’s (2002) Sport Psychology: concepts and applications, or William’s (2001) Applied sport psychology: personal growth to peak performance. An awareness of attribution processes as they relate to sport might lead one to consult Sports Psychology: the Key Concepts in order to get to grips with the definitions and for some degree of contextualisation. A fuller understanding could then be gained from other sources. The book inhabits a space between the idea and the understanding. It may be what one might reach for as a response to the former, but would not in itself meet the needs of the latter. It is a useful signpost to a deeper understanding of sport psychology. The suggestions for further reading enhance the clarity of these signposts.

As someone with a personal and professional interest in sport psychology I found the book to be both useful and at times mildly frustrating. The frustrations stem from the necessary brevity of some of the entries. Despite the minor frustrations I feel that the book acts as a useful stimulus for ideas within the discipline.

REFERENCES


Reviewed by David Alcock, School of Health and Counselling Psychology, University of the West of England

SIGNALS AND PERCEPTION: THE FUNDAMENTALS OF HUMAN SENSATION

David Roberts (Ed.)


ISBN: 0333993640

The purpose of this textbook is to provide an introduction into the human senses. It is a constituent part of an Open University course. The book is subdivided into five parts: (1) Hearing and balance, (2) Vision, (3) Touch and pain, (4) Smell and taste, and (5) Integrating the senses. Each of the 29 chapters is commissioned from an expert in the relevant field. In its introduction it states that it is designed to complement other course material. Although this other material is not further specified, it is worth keeping in mind that the primary objective of this text is not to be used as a stand-alone textbook.

What first captured my attention when I flicked through the book were the brilliant figures and illustrations – and there are many of them. Most of the artwork is...
indeed outstanding with respect to clarity and the ability to convey the intended information.

Each of the five parts starts off with describing the relevant signal and receptor(s) for the respective sensory domain. This is followed by details concerning the neural coding of the incoming signal and the transduction to the brain. Finally, some aspects of the brain processes that give rise to various perceptions are explained in depth. This structure is kept consistently throughout the whole book. The main focus is on outlining the functions of the different sense organs and how the resulting neural signals are conveyed to the brain. This objective is clearly achieved for each sensory modality. Some chapters also emphasise the use of neuroimaging tools in analysing sensory functions and one chapter is entirely dedicated to describing the advances made in understanding the human visual system due to functional neuroimaging. A few chapters also focus on perceptual processes and on their impairments, one of them describing auditory impairments and their rehabilitation in great detail. Finally, the textbook is rounded off with a very comprehensive glossary with approximately 400 relevant entries.

The material is presented in a very intelligible way throughout the whole book, which should make it easy for students to comprehend. Indeed, the style is very concise and easy reading is achieved without sacrificing profundity.

What then are the shortcomings of this book? First of all, I doubt that it would be suitable as a stand-alone text on sensation and perception. To begin with, basic knowledge about the nervous system and about neuronal mechanisms at the cellular level are required. These fundamental biological principles are not covered by the book. This is not necessarily a problem, since other textbooks – and probably other courses – cover this field very well. Nevertheless, it is worth mentioning that there are prerequisites for using the book successfully. More importantly, many aspects of higher-level perception are not included. For instance, while three chapters cover colour vision in great detail and a whole chapter is dedicated to visual word perception, perception of depth is not mentioned at all. To get a more comprehensive picture of the variety of perceptual processes and phenomena one would have to rely on additional material. In defence, it should be noted again, that it is not the primary purpose of the text to be used as a stand-alone text.

Also, I recognised some inconsistency with respect to suggestions for further reading. While some authors provide a list at the end of their chapter others do not. I believe, though, reading suggestions are not essential and lecturers who decide to adopt this book will probably come up with their own suggestions anyway.

Another aspect distinguishes this book from the typical textbook we got so used to. It does not provide any pedagogic gimmicks. Neither study questions or multiple-choice questions nor concept checks, summary tables, etc., are provided. Each chapter plainly consists of a concisely written text about a specific topic, starting off with an introduction and wrapping up the content with a short summary. It is probably a question of taste and teaching style whether one likes this approach. I think it encourages students to digest the material actively and should lead to a deeper level of understanding.

To sum up, if one is interested in a textbook which provides a thorough introduction into the basic principles of human signal processing this is definitely a book to consider. I was intrigued by the consistency and clarity of the book. It offers a refreshingly plain approach, which should facilitate active learning, since it leaves the work of summarising and condensing the provided information to the reader. Issues concerning sensation were presented in great detail and I did not recognise any shortcomings there. To cover the whole range of perception one would have to rely on an additional textbook and I can imagine that a tandem with a classical textbook as for example Goldstein’s Sensation and perception (2002) or a similar text would do the trick. The advantage of the reviewed textbook over some classical texts on sensation (and perception) is its outstanding clarity.

Overall, Signals and Perceptions convinced me enough to order several copies of it for our library.

REFERENCE

Reviewed by Peter Malinowski, School of Psychology, Liverpool John Moores University
Recent years have seen a burgeoning interest in computer-mediated communication (CMC), with researchers interested in the new social arenas and patterns of interaction made possible by the Internet, including the possibilities that such technological developments offer as research and teaching mediums. While the number of books on these topics continue to proliferate, few offer a text which has the combined features of being accessible to the novice, sufficient in depth and breadth to inform and retain the interest of the reader, and providing a clear understanding of key associated psychological theories and concepts along with succinct and insightful critiques. However, in Understanding the Psychology of Internet Behaviour, Adam Joinson achieves all of these.

The opening chapter places the Internet and associated current debates in a socio-technical, historical context. In particular, Joinson draws upon the examples of the telegraph, telephone, radio, and mobile telephone text-messaging, in part to demonstrate that supposed ‘new’ aspects of Internet communication actually have a long history, and in part to demonstrate how technologies are often taken up and used for different purposes than those intended by their designers. Here the focus of the book is identified as the study of both the media aware Internet user and the effects that Internet media exert upon the behaviour or psychological state of the user. The argument here is that while people actively choose particular media for certain tasks, patterns of behaviour or psychological states vary with different media.

Chapter 2 overviews influential psychological theories of telecommunication and individual and group behaviour, including, early approaches that focused on the narrow bandwidth of telecommunications and stressed the loss of visual cues (e.g. the telephone). Such approaches stressed the reduced capacity for the exchange of social, interpersonal information, and a focus on more task-oriented exchange. However, Joinson effectively critiques the assumptions and methodological flaws of much of this research to argue that CMC includes a high degree of socio-emotional content that these early theories would find difficult to account for.

The next four chapters of the book are divided into two on perceived or potential negative aspects of Internet behaviour, and two on the more positive aspects. Chapter 3 begins by overviewing research on Internet addiction and provides a developed critique of the research in this area, particularly in relation to its incidence and the conceptual confusion surrounding its definition. This is followed by a discussion of ‘flaming’, such as posting negative or abusive messages on computer networks. Again, Joinson roundly critiques the methodology of the research in this area, arguing that the actual incidence of flaming is very low, and returning to the theories presented in Chapter 2 to explain the psychological antecedents of flaming behaviour. The chapter concludes with a discussion of negative Internet relationships, such as those involving deception, and the occurrence of cyber-affairs or online infidelity. The incidence of deception in the development of online romantic relationships is argued to be relatively rare, and often comparable to that in off-line relationships.

Chapter 4 presents and critiques research that seemed to show that higher levels of depression and loneliness are associated with Internet use. The methodological weaknesses of this research are highlighted as well as subsequent research that found the opposite results. Examples of ‘gender-bending’ or gender-swapping in virtual communities, along with elaborate hoaxes, are presented to demonstrate deception in online groups, and the damage this can incur to trust in these social networks. The chapter concludes with a discussion of Internet pornography. Interestingly, while a general perception is that the Internet is awash with pornography, Joinson points to research which suggests that only 1.5 per cent of the web contains pornographic material.

The more (possibly) positive aspects of the Internet are outlined in Chapters 5 and 6. Joinson begins with a discussion of patient empowerment, such as when people use information gathered from the Internet to reduce the knowledge and power differentials in subsequent doctor-patient interaction. In addition to this, it is argued that the increased self disclosure often found online may facilitate the expression of the ‘true’ self, with persons feeling that their online identity more closely approximates the person they feel they are or ought to be. Moreover, the expression of this ‘true’ self online may lead to positive changes off-line. For instance, persons who have ‘come out’ as being homosexual online may feel more able to do so off-line and live a more open lifestyle that they wish for. These themes are continued in Chapter 6, where Joinson focuses on the potential benefits of virtual communities, which may be able to provide much needed emotional support to members.

Chapter 7 focuses on ‘an agenda for the development of a framework for understanding the psychology of the Internet’. This is perhaps the weakest chapter as it has a tendency to be repetitive of other parts of the book, and what is new here could have been incorporated within earlier chapters. In the final chapter Joinson argues that technology continues to be developed on the faulty basis that people want access to information rather than sociality (e.g. mobile
phones). Once again, this is related to developments of earlier technologies, such as the telephone, where designers were slow to realise that people wanted sociality. Much design of communication technology, argues Joinson, continues to be driven by a perceived desire for increased bandwidth (e.g. adding video communication to telephones), whereas often people choose technologies precisely because they have a narrow bandwidth (e.g. do people want to be seen by the other person when making a telephone call?). The chapter concludes with some interesting pointers towards areas in which Internet technology might be further developed, such as counselling services and educational technology. While just over two pages are devoted to the applications of computer-mediated communication to teaching, these, along with a reflective consideration of the themes in the rest of the book, are highly informative of the potential and pitfalls associated with this process.

In summary, this book provides an interesting overview of key psychological theories of Internet use, including many recent controversial debates about the potential benefits and drawbacks of this nascent technology. Through a combination of research review, critique and anecdote, the book provides an insight into the patterns of behaviour and psychological processes that accompany Internet use. As such, Understanding the Psychology of Internet Behaviour will be a valuable text for undergraduates studying courses on social, health, and counselling psychology, or psychology and technology. It will also be a useful resource for those interested in developing their teaching and research into the virtual domain.

Reviewed by Craig Murray, Department of Psychology, Liverpool Hope University College

HOW TO DESIGN AND REPORT EXPERIMENTS
Andy Field and Graham Hole

ISBN: 0761973834

This is a good book. As you were, this is a really, really good book. Years of bitter experience have taught one to approach research methods texts with the same degree of enthusiasm that one might afford a soundly prodded ferret. In the present case, though, all is well. One’s intellectual extremities remain quite unchewed. The authors have created an accessible, clear and comprehensive book, intended to deal with just about every aspect of the research process from initial idea generation to writing an effective research report.

The book is organised in three main sections. The first section deals with experimental planning and design. It addresses issues concerned with the research process such as scales of measurement, the scientific method and experimentation versus correlation. The second section considers data analysis and interpretation, parametric and non-parametric tests of difference. The final section contains a comprehensive account of how to create an effective report, from a general overview to some fine detail about each of the appropriate sections of a report.

When one begins to look more closely at the content of this text, its accessibility, depth and breadth become increasingly evident. In the first section, Field and Hole take us through the issue of causality, touching on some of the philosophical issues affecting the problem. It is particularly gratifying to find a discussion of the Popperian approach to science and the concept of falsification. There are accompanying sections on experimental control, randomisation and the use of statistics. The authors continue with a description of how to avoid the ‘so what?’ questions in science and how to tackle the fundamental issues of choosing dependent and independent variables. The chapter on experimental design addresses the problems of validity, reliability and scientific importance. The style throughout is neither patronising nor obscure.

This balance of style is maintained throughout the second principal section, which looks at statistical tests. The section is a fairly brisk canter through the ever-popular world of descriptive and inferential statistics, together with a positive gallop through the f-test and some ANOVA models. The section concludes with a relaxed trot through some of the less repulsive non-parametric tests including the Mann-Whitney and the Wilcoxon. There are numerous references throughout the section to SPSS output which is okay if you use SPSS for your teaching, but you are anyway, so no problem there then.

The third and final principal section is devoted to report writing. It begins at a general level, with a quick guide to writing a psychology lab report, then becomes increasingly more focused. The section addresses the structure of the report, the reasons for that structure, and includes a wealth of useful tips and pointers to help the reader avoid common pitfalls and achieve the required communicative clarity.

Does the book have any notable weaknesses? Well, no, it doesn’t. It contains enough statistical material to allow the reader to understand why we use statistics as part of the process of experimentation. It’s fair to say that there is not enough statistical material to make the text an all-you-need affair, but one is fairly sure that was not the authors’ intention. Any more statistics would have made it unwieldy, and anyway it isn’t a stats book. It is, however, very well referenced, with plenty of direction for extended reading. Maybe the final section on report writing might have emphasised the actual reason and necessity for writing an effective report – specifically, it doesn’t
How to Design and Report Experiments is aimed at and eminently suitable for level I and level II psychology undergraduate degrees. It would also be appropriate for other disciplines with an experimental focus. On a personal note, I have already added it to my very short list of research methods books worth the money and will be recommending it to my undergraduates.

It’s a good book. It’s a really, really good book.

Reviewed by Clive Thacker, University of Sunderland Business School

VISIONLAB FOR WINDOWS

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Single user licence including: one pair of stereo shutter glasses plus driver hardware. £700.

Additional stereo shutter glasses £50.

Site licence £1500.

Additional stereo shutter glasses with hardware driver (available only to purchasers of unlimited site licence) £100.

VisionLab is a serious product at a serious price. It claims to give us 27 demonstrations of phenomena in visual perception, ranging from the Poggendorff illusion to Sperling’s partial report task, as well as some more complete experiments.

The attractive part of the whole package is the LCD shutter goggles that allow some 3-D demonstrations and experiments. Installation is a bit fussy and unfortunately my goggles were a bit flaky, with depths effects ‘flipping’ at random in a most irritating fashion. One is advised to make sure that your machine is running Windows95 or 98 (it doesn’t work with NT for example), to set the number of colours on the screen to 256 and to make sure other applications aren’t running. This is done by pressing Ctrl-Alt-Del and removing all running applications. Unfortunately my machine was running 23 applications at the time and it takes a while to delete them one by one! But these are minor grumbles that shouldn’t greatly inconvenience a serious user of this material.

Turning first to the demonstrations, the documentation is extensive and it really is necessary to print out the 73 pages of the VisionLab manual. Each of the 27 demonstrations has a short, approximately 1 page, description, some of which are succinct and accurate and others of which are not. The demonstrations themselves have little cohesion to them, no rationale is given for why we have one demo and not another and they are listed in a seemingly random order. The method of viewing the demonstrations is a bit fiddly too; the application starts with no demonstrations selected. You must click the ‘ADD’ button to select the demo you want. That adds it to the main window. Now select the demo and click the ‘RUN’ button. A ‘MODIFY’ button allows various parameters of the demonstrations to be manipulated. Clearly there is not space here to review all 27 demos but perhaps a few comments on the first few might give a flavour of the whole package.

The first demo in the list is Phi. The documentation tells us that ‘the term phi is an old term for what is now more widely known as apparent movement’. Well, actually that is not true. Wertheimer used the term ‘phi movement’ to describe the movement which occurred seemingly without anything actually moving – a pure disembodied movement. Optimal apparent movement, which looks most like real movement, was termed beta movement. In the next paragraph we are told that only short-range motion gives rise to the motion aftereffect. Again, not quite true; von Grunau (1986) reports a motion aftereffect for long-range stroboscopic apparent motion. On to the demonstration.

We can control dots flashing on the screen. We can choose if they move continuous across the screen or if they jump back and forth. We can control (for example) how long the spot is present, the time for a given viewing distance in one position and its appearance elsewhere and the size of the jump. This allows a good deal of opportunity to investigate aspects of apparent movement, but I can’t help regretting that one good trick has been missed; one of the most compelling demonstrations here would have been the Ternus display, but though flexible, the software isn’t that flexible. This is perhaps an example of one of the general problems of other people’s software – it does a lot but often not exactly what you want it to do.

On to demonstration number 2, short range motion. This is, obviously, a related topic and the demonstration is convincing. We can vary the jump size of the moving portion of the display to see that the effect only operates over a short range. So far so good but then the documentation refers us to the Appendix for a table that converts mm on the screen to visual angle for a given viewing distance. Unfortunately I couldn’t find the Appendix but this shouldn’t matter as the authors tell us how to calculate what we need to know:

‘Note that the visual angle is inversely proportional to viewing distance. If you know the angle for a viewing distance, multiply by the ratio of the two viewing distances to get the visual angle. For example, an object size of 1mm when viewed at a distance of 2m subtends a visual angle of 1.72. At a viewing distance of 4 meters: visual angle = 1.72 x 2/5 = .69’
This is all true, but it would have been much more helpful just to say that 1cm at 57cm subtends an angle of 1 degree.

On to the next demo: Motion recruitment. This gives us what we are told is an ambiguous array of moving dots that can be seen equally well as moving left and right or up and down. Well, no, actually; unfortunately the default display has five rows of the dots and these are more easily seen as shifting from side to side than up and down because in the former configuration every dot can jump to a visible position in the second frame whereas to see up and down motion some of the dots must disappear from view between Frame 1 and Frame 2. Now if the default pattern had 4 or 6 rows, all would be well I think.

Am I just being pernickety? Perhaps, but it’s the detail that makes the difference between a package like this being a joy to use and being frustrating. It’s so nearly really good that I wish the authors had tested the product a little more thoroughly ‘in the field’ before publication.

One final gripe might illustrate this. Throughout the user’s manual the authors refer the reader to relevant papers in the literature. Great. But they don’t give the full reference. So you decide you want to read Meyer and Garges (1979) but where is it published? I could find no bibliography and another good feature is spoiled. While on that point, Meyer and Garges (1979), wherever it may be published, was not the first paper to demonstrate the Poggendorff illusion with subjective contours; it is discussed by Richard Gregory in his Oxford Biology Reader 40 Visual Perception in 1973 and it may well predate that publication too.

The second part of this package provides for some more complete experiments, offering different psychophysical methods (point of subjective equality, discrimination threshold and absolute threshold) and no fewer than six procedures including method of adjustment, constant stimuli, staircases, etc. Several experiments can use these procedures and the results can be saved and plotted. Each experiment has a menu to allow for various parameters of any experiment to be altered. The documentation is a little sparse at times but by playing around one can find out how to change the various parameters. These experiments use the Vision Works MethodMaker software and the user’s manual is included on the disk provided. This gives a glimpse of the full-blown system for designing experiments but, as so often, one suspects that this manual isn’t intended to be the final version.

Overall VisionLab is an ambitious project and the inclusion of the shuttering goggles is a major plus to the package, but until some of the rough edges are tidied up it would be hard to recommend it as good value for £700 ex-VAT. On the assumption that the software will one day do what it claims and the documentation is given a necessary polish, then one might consider setting up a multi-user system. The site licence is £1500 and a hardware driver and two pairs of goggles would cost £150; so the bill for 20 students to use the system would be around £3000 ex VAT. That’s a lot of money but it would give you a system with real potential for demonstrations, practicals and student projects. Further, coupled with the VisionWorks MethodMaker software and a competent programmer, the possibilities might be limitless.

Reviewed by Peter Thompson, Department of Psychology, University of York
Chapter 2: Individual Differences in Cognition: New Methods for Examining the Personality-Cognition Link. Chapter 3: The Relationship Between Intelligence and Pavlovian Temperament Traits: The Role of Gender and Level of Intelligence. Chapter 4: General Models of Individual Differences in Cognition: The Commentaries. Chapter 5: Neuroscientific Approaches to the Study of Individual Differences in Cognition and Personality. Personality and Individual Differences is primarily devoted to the publication of articles (experimental, correlational, theoretical, expository/review) which enhance our understanding of the structure of personality and other forms of individual differences, the processes which cause these individual differences to emerge, and their practical applications. Accessible methodological contributions are also welcome.