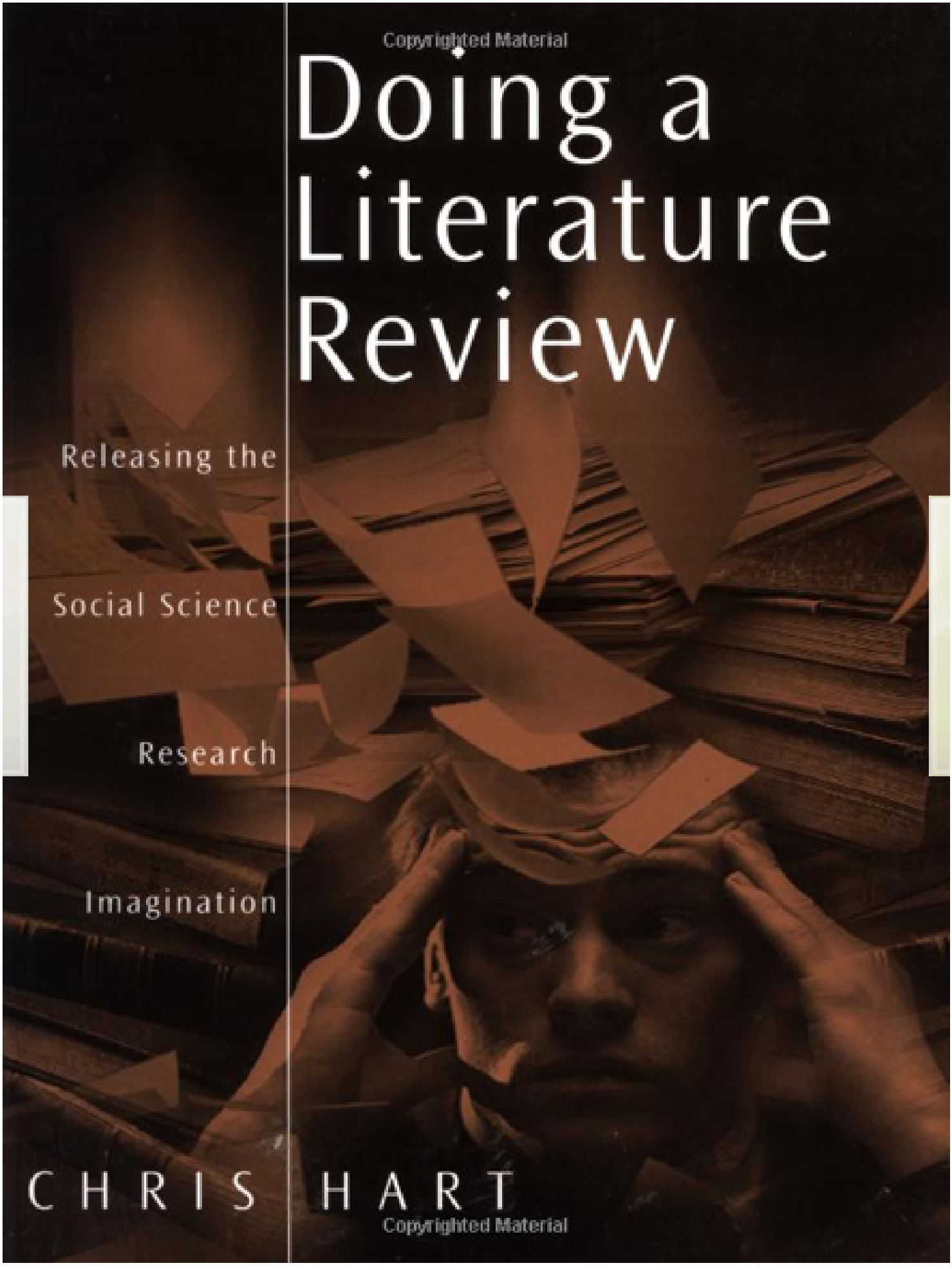
Doing a Literature Review

Releasing the Social Science Research Imagination



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The literature review in research

It has become an annual ritual for graduate researchers embarking on their projects to ask about the literature review. They usually want to know what a review of the literature looks like and how they should do one. Students and tutors find that there is no single text that can be used to guide them on how to conduct the literature review; hence the purpose of this book. It is a guide to reviewing literature for research.

The book, however, is not about reviewing or critical evaluation of the kinds of articles found in the review sections of newspapers such as *The Times Educational Supplement* or *Guardian*. It is about reviewing a research literature. It introduces and provides examples of a range of techniques that can be used to analyse ideas, find relationships between different ideas and understand the nature and use of argument in research. What you can expect, therefore, is explanation, discussion and examples on how to analyse other people's ideas, those ideas that constitute the body of knowledge on the topic of your research.

Initially we can say that a review of the literature is important because without it you will not acquire an understanding of your topic, of what has already been done on it, how it has been researched, and what the key issues are. In your written project you will be expected to show that you understand previous research on your topic. This amounts to showing that you have understood the main theories in the subject area and how they have been applied and developed, as well as the main criticisms that have been made of work on the topic. The review is therefore a part of your academic development – of becoming an expert in the field.

However, the importance of the literature review is not matched by a common understanding of how a review of related literature can be done, how it can be used in the research, or why it needs to be done in the first place.

Undertaking a review of a body of literature is often seen as something obvious and as a task easily done. In practice, although research students do produce what are called reviews of the literature, the quality of these varies considerably. Many reviews, in fact, are only thinly disguised annotated bibliographies. Quality means appropriate breadth and depth, rigour and consistency, clarity and brevity, and effective analysis and synthesis; in other words, the use of the ideas in the literature to justify the particular approach to the topic, the selection of methods, and demonstration that this

research contributes something new. Poor reviews of a topic literature cannot always be blamed on the student researcher. It is not necessarily their fault or a failing in their ability: poor literature reviews can often be the fault of those who provide the education and training in research.

This book has been written primarily for student researchers, although it may also be of use to those who provide education and training in research. It is intended to be an introduction to those elements of the research process that need to be appreciated in order to understand the how and why of reviewing a topic-specific literature. As such, an attempt has been made to provide an introduction to a range of generic techniques that can be used to read analytically and to synthesize ideas in new and exciting ways that might help improve the quality of the research.

This book is aimed at people working within the social sciences, which includes the disciplines listed below. This list is not exhaustive; archaeology, for instance, might have been included in this list.

- built environment and town planning
- business studies
- communication and media studies
- community studies
- cultural studies
- economic and social history
- economics
- educational studies
- environmental studies
- gender studies
- human geography
- literature
- organizational studies
- policy analysis
- political studies
- psychology
- religious studies
- social and political theory
- social anthropology
- social policy and administration
- social research
- sociology

The main aim of this book is therefore to provide researchers with a set of ground rules, assumptions and techniques that are applicable for understanding work produced in the whole range of disciplines that make up the social sciences. The assumptions outlined in the book form a basis for the understanding and cross-fertilization of ideas across disciplines. The various techniques aim to provide the tools for a systematic and rigorous analysis of subject literature. Suggestions are also made on writing up the analysis of ideas in ways that can give clarity, coherence and intelligibility to the work.

This chapter will introduce you to the skills needed for research, the place of the literature review in research and the importance of the review to master's and doctoral study. In Chapter 2 we look at the purpose of the review in research and what is meant by the research imagination. Chapter 3 examines the types of research to be found in the literature, together with examples of reviews undertaken in a range of subject areas. It also shows examples of good practices that you should be able to adapt and utilize in your own work, especially in reading to review. Chapter 4 is about understanding arguments. To analyse a literature on a topic necessarily involves understanding the standpoint (moral and ethical) and perspective (political

and ideological) an author has used. Chapters 5 and 6 are about the tools and techniques of analysis and synthesis. Essential techniques such as analysing an argument, thinking critically and mapping ideas are explained. A thread running through these chapters is guidance on how to manage information. This is because, without strict management of materials and ideas, any thesis will lack the technical standards required of the postgraduate student. The final chapter is about writing up your review of the literature. Guidance is given on how your review can be used to justify your topic as well as on what structures and formats might be used.

SKILLS FOR RESEARCH IN THE SOCIAL SCIENCES

The breadth and depth of the various subject disciplines that make up the social sciences, some of which have been listed above, are not easily classified. There are also the increasing opportunities for students to study a range of modules which cut across different areas of knowledge. Combined with these is the pace of development of the electronic systems being used increasingly in all types of research.

Adapting to change

The expansion of education has been accompanied by a massive and growing expansion of information available to research students. In printed and electronic form the pace of information generation continues to increase, resulting in libraries acquiring only a very small proportion of that available. As a consequence, many academic libraries have become gateways to information rather than storehouses of knowledge. You will find that nearly all university libraries and public libraries are able to serve your needs as a researcher.

The move of university libraries away from storehouses of knowledge towards information resource centres has been accompanied by an increase in the use of information technology (IT). Many libraries manage the expansion of information with the aid of computer systems able to communicate around the globe – a development which has opened up a range of new possibilities to researchers. It is now possible for you to access information that would previously have been difficult and expensive to find. A single day searching a CD-ROM database or the internet can throw up many more sources than might have been found from weeks of searching through printed abstracts and indexes. However, there are two problems you may encounter in this area. One is the lack of understanding of technology and how it can be used in research. The other is a lack of understanding about how knowledge is generated and organized through the use of tools, such as abstracts and indexes, in order to make it accessible.

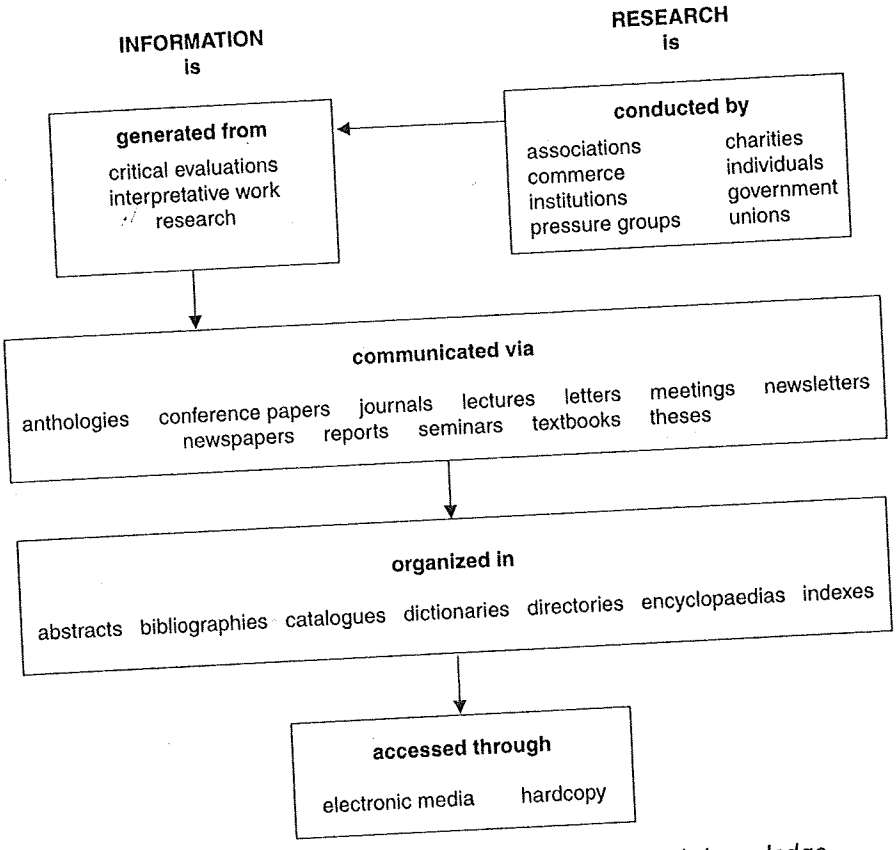

Figure 1.1 *The generation and communication of research knowledge and information*

Figure 1.1 provides an overview showing the main sources of knowledge and the tools by which most of it is organized for retrieval.

More recently there has been a move in higher education and research to learn from other disciplines, to be cross-disciplinary. Students on social studies and humanities courses are expected to undertake training in computing and to become competent in the use of statistical techniques, employing computers for data analysis and presentation. Added to this is the trend towards combined degrees. A consequence is that researchers need to be more flexible in their attitude to knowledge. To do this they need much broader skills and knowledge bases to take full advantage of higher education.

The changing requirements placed on the student have begun to manifest themselves in a terminology of skills, competencies and professional capabilities. Alongside a traditional education, students are expected to acquire a set of personal transferable skills. The basic elements of communication, such as writing reports, making presentations and negotiating,

might be included in these skills. The emphasis on skills is not something unique to a social sciences education – skills are becoming important to the careers of graduates and to quality research in general.

Undergraduate and postgraduate research is an ideal opportunity for such personal transferable skills to be acquired and developed. Although searching and reviewing a literature do not cover the whole spectrum of skills, they do cover some key ones. These include: time management, organization of materials, computer use, information handling, on-line searching and writing.

The research apprenticeship

It is not an easy matter to demonstrate the kinds of skills and abilities expected of a competent researcher in the report of the research. The skills required are considerable and are increasingly subject to detailed evaluation. As the opportunities to undertake research have expanded, so too has the demand for better and improved education and training for researchers. In its response to these demands the Economic and Social Research Council (ESRC) in the UK produced a set of guidelines which include a number of basic proposals for research training which are intended to promote quality research. The following list indicates the two basic types of skills required from researchers.

- Core skills and abilities: while the differences make subject disciplines distinctive, there exists a common core of skills and attitudes which all researchers should possess and should be able to apply in different situations with different topics and problems.
- Ability to integrate theory and method: research for all disciplines involves an understanding of the interrelationship between theory, method and research design, practical skills and particular methods, the knowledge base of the subject and methodological foundations.

Both of these proposals call for a research training that exposes the apprentice to the range of general academic research skills and expertise expected of a professional researcher. The academic skills and expertise common to all subject fields within the social sciences can be grouped as shown in Table 1.1 (overleaf).

In addition to the common academic skills the ESRC guidelines also identify subject-specific skills, abilities and knowledge to be expected of postgraduate students. Examples of these for two subject areas, linguistics and sociology, can be seen in Table 1.2 (p. 7).

Table 1.1 *Research areas for the application of skills and abilities*

Literature search and evaluation	For example: library searching and use of abstracts and indexes; bibliographic construction; record keeping; use of IT for word-processing, databases, on-line searching and electronic mail; and techniques for the evaluation of research, including refereeing, reviewing and attribution of ideas.
Research design and strategy	For example: formulation of researchable problems and translation into practicable research designs; identifying related work to rationalize the topic and identify a focus; organize timetables; organize data and materials; understand and appreciate the implications of different methodological foundations; and how to deal with ethical and moral considerations which may arise.
Writing and presenting	For example: planning writing; skills for preparing and submitting papers for publication, conferences and journals; use of references, citation practices and knowledge of copyright; construction and defence of arguments; logical, clear and coherent expression; and understanding of the distinction between conclusions and recommendations.

It is important that research education and training does produce researchers who are competent and confident in a range of skills and capabilities and who have an appropriate knowledge base. An element common to the core areas is a thorough understanding of information. This means that as a researcher you need to become familiar with: accessing and using the vast resources of academic, public and commercial libraries in the world, through, for example, JANET (Joint Academic Network), OPAC (On-line Public Access Catalogues) and the British Library; keeping accurate records and establishing reliable procedures to manage materials; applying techniques to analyse bodies of literature and synthesize key ideas; and writing explicit reviews which display depth and breadth and which are intellectually rigorous. All these are part of the essential transferable skills of the researcher.

Most disciplines introduce their students to the theoretical and historical traditions that give shape and distinctiveness to the subject knowledge. But in so doing the methodological bias, disciplinary boundaries and misunderstanding about other subjects is perpetuated. This often creates barriers to cross-disciplinary studies and a lack of appreciation of alternative ways of researching and understanding the world. This book aims to show ways in which these kinds of barriers can be overcome and we begin by considering what we mean by scholarship.

Scholarship

Most people are capable of doing a piece of research but that capability has to be acquired – for instance, you cannot simply write a questionnaire as if you are writing a shopping list. A sound knowledge of the whole research

Table 1.2 *ESRC guidelines on subject knowledge and skills: linguistics and sociology*

	Core training	Descriptions of skills and abilities expected from the research student
Linguistics		

Table 1.2 *ESRC guidelines on subject knowledge and skills: linguistics and sociology*

Core training		Descriptions of skills and abilities expected from the research student
LINGUISTICS	Philosophy of linguistics	Issues of theory construction, problem formulation, and explanation; basic themes e.g., realism, mentalism, nominalism, empiricism, behaviourism and logicism; ontological and epistemological issues; status of data and use of informant judgements; role of formalism; argumentation and status of examples; relationship between theory and data; search for universals; ideological implications of idealization; cultural partiality; Kuhnian paradigms.
	Research methods in linguistics	*Qualitative methods* use of informants; audio and video recording; phonetic and orthographic transcription; descriptive linguistics (diachronic and conversation analysis). *Computational methods* use of linguistic corpora grammar systems; speech workstation; phonological and morphological analysis; basic programming in high-level language, e.g., Prolog. *Formal methods* mathematical linguistics (set, string, tree, grammar, equivalence, hierarchy, lambda calculus); theory of inferences and semantics of first-order logic; feature structures and unification. *Quantitative methods* experimental design; validity and conduct of experiments; questionnaires; interviewing; sampling and survey design; statistics software; descriptive and inferential statistics.
SOCIOLOGY	Philosophy of the social sciences	Understanding of the major alternative philosophical positions for theory construction, appraisal and testing, for explanatory goals of theories and for the use of models. Understanding of how various positions affect research design, research choices, data-collection and analysis techniques. Understanding of the theoretical context of research; theoretical issues and debates for those engaged in empirical work; and evaluation of research.
	Research design	Stages and processes in formulating researchable problems and translating them into practical research designs. Making informed judgements about ethical and moral issues. Understanding of the uses and implications of: experimental study; survey research; comparative studies; longitudinal research; ethnography; case studies; replication studies; evaluation research; prediction and action research.
	Data collection and analysis	Awareness of range of sources, e.g., archival and historical data; agency records; official statistics; pictorial materials; and textual data. Knowledgeable of data-collection techniques by participant and non-participant observation, ethnographic field work, group discussion, various types of interviews and questionnaires, and through unobtrusive measures. Methods of recording data such as note taking, audio and video; data coding and identifying relationships between concepts/variables; the principles of descriptive and inferential statistics and bi- and multivariate analysis; the systematic analysis of textual data and other qualitative materials; and use of computer packages for data management.

process is required and you need to understand where data collection fits into the global picture of what you are doing. This means knowing how to state the aims and objectives of your research, define your major concepts and methodological assumptions, operationalize (put into practice) those concepts and assumptions by choosing an appropriate technique to collect data, know how you are going to collate results, and so on. Competent research therefore requires technical knowledge. There is, however, a difference between producing a piece of competent research and a piece of research that demonstrates scholarship.

Scholarship is often thought to be something academic high-brow types do. We are all familiar with the popular image of the scholar as one of an ageing bespectacled man with unkempt hair, dressed shabbily in corduroy with a thick old leather-bound book in hand. Many of you may be aware of places of scholarship epitomized in television programmes such as *Morse* and in novels such as *Brideshead Revisited*. The surreal surroundings of the Oxbridge colleges, with their high towers, the oak-clad library full of books and manuscripts, and with the smell of dust and leather, are common images of scholarly places. Many universities do have traditional oak-clad libraries, but many others today do not. It is more common for universities to have modern well equipped learning resource centres brimming with technology, than to have rows of books on shelves. Scholarship is an activity: it is something a person can do. You do not have to be of a certain social class, gender, ethnic origin or to have successfully jumped over formal educational hurdles. We can say that scholarly activity encompasses all of these and more. Scholarly activity is about knowing how to: do competent research; read, interpret and analyse arguments; synthesize ideas and make connections across disciplines; write and present ideas clearly and systematically; and use your imagination. Underpinning all of these are a number of basic ground rules, which we look at in more detail in the next section. But what they amount to is an attitude of mind that is open to ideas and to different styles and types of research, and is free of prejudices about what counts as useful research and what type of person should be allowed to do research.

A key element that makes for good scholarship is integration. Integration is about making connections between ideas, theories and experience. It is about applying a method or methodology from one area to another: about placing some episode into a larger theoretical framework, thereby providing a new way of looking at that phenomenon. This might mean drawing elements from different theories to form a new synthesis or to provide a new insight. It might also mean re-examining an existing body of knowledge in the light of a new development. The activity of scholarship is, therefore, about thinking systematically. It might mean forcing new typologies onto the structure of knowledge or onto a taken-for-granted perspective. Either way, the scholar endeavours to interpret and understand. The intent is to make others think about and possibly re-evaluate what they have hitherto taken to be unquestionable knowledge. Therefore,

systematic questioning, inquiring and a scrutinizing attitude are features of scholarly activity.

At master's level, this might mean looking at applying a methodology in ways not tried before. At doctoral level, it might mean attempting to refigure or respecify the way in which some puzzle or problem has traditionally been defined. The anthropologist Clifford Geertz (1980: 165–6) suggests that refiguration is more than merely tampering with the details of how we go about understanding the world around us. He says refiguration is not about redrawing the cultural map or changing some of the disputed borders, it is about altering the very principles by which we map the social world. From the history of science, for example, Nicolas Copernicus (1473–1543) re-examined theories about the cosmos and the place of the earth within it. Traditional theory held the view that the earth was motionless and stood at the centre of the universe: the sun, other stars and planets were believed to revolve around the earth. Copernicus asked himself if there was another way of interpreting this belief. What if, he asked, the sun was motionless and the earth, planets and stars revolved around it? In 1541 he outlined his ideas and there began a refiguration of how the cosmos was mapped. We can see a classic example of refiguration in the work of Harold Garfinkel. Garfinkel respecified the phenomena of the social sciences, especially sociology (see Button, 1991). He undertook a thorough scrutiny of traditional sociological theory and found that social science ignored what real people do in real situations; the result was that he originated the technique of ethnomethodology. So radical was this respecification that traditional social science has marginalized the work of Garfinkel and others who undertake ethnomethodological studies of social life.

SKILLS AND THE LITERATURE REVIEW

The researcher, at whatever level of experience, is expected to undertake a review of the literature in their field. Undergraduates researching for a thesis or dissertation are expected to show familiarity with their topic. Usually this takes the form of a summary of the literature which demonstrates the skills to search on a subject, compile accurate and consistent bibliographies and summarize key ideas showing a critical awareness. They are expected to weigh up the contribution that particular ideas, positions or approaches have made to their topic. In short, they are required to demonstrate, on the one hand, library and information skills, and on the other, the intellectual capability to justify decisions on the choice of relevant ideas and the ability to assess the value of those ideas in context.

Undergraduates who move on to postgraduate research find that expectations change. The scope, breadth and depth of the literature search increases. The research student is expected to search more widely, across disciplines, and in greater detail than at undergraduate level. The amount

of material identified increases the amount of reading the researcher has to do. In addition, reading materials across several disciplines can be difficult because of the different styles in which various disciplines present ideas. Also, the vocabularies of different subjects and what are taken to be the core, researchable problems for a particular discipline constitute further difficulties. For example, the student of management may be totally unfamiliar with the verbose and seemingly commonsense style of, say, sociology. Conversely, they may find the going less difficult if faced with advanced social statistics. The result may be the dismissal of the verbose style and admiration of the numerical formulae. The acceptance of one style over another is often due to disciplinary compartmentalization. Management students might be expected to be more familiar with statistics than with social theories. They might also have a more pragmatic attitude, influencing them to favour clarity and succinctness. As a consequence, potentially interesting and relevant ideas might be missed.

Our discussion so far has been about the kinds of assumptions that might help overcome disciplinary compartmentalization and so encourage cross-disciplinary understanding. In practice, this addresses two main features of academic research: one is the central place argument has in academic work, and the other is the need to be open-minded when reading the work of other people. We look more closely now at each of these in turn.

Communicating your argument

Most authors attempt to make their writing clear, consistent and coherent – something very difficult to achieve in any work, whatever its length or topic. Nevertheless, clarity, consistency and coherence are essential, because without them a work can be unintelligible. As a consequence the work might be misunderstood, dismissed or used in ways not intended by the author. Most important, the main idea, no matter how interesting, might be lost. Conversely, what seems clear and coherent to the writer can be utterly incomprehensible to the reader. Unfamiliarity with the style, presentation or language use is nearly always a cause of frustration to the reader.

We need to acknowledge that effort is required and to accept that clarity, consistency and coherence are not mysterious qualities able to be practiced only by the few. These can be achieved through explicit expression in writing and explicit commitment in reading. A problem for the academic author, however, is the time that readers allocate to their reading and the level of effort they are willing to invest in order to grasp the ideas in a text. At the same time, some authors seem to neglect the needs of their potential readers and manage to make relatively simple ideas confusing.

In terms of reviewing a body of literature – made up of dozens of articles, conference papers and monographs – one problem is diversity. Texts which originate from several disciplines and which have been written in different styles engender the need for a flexible and open-

minded attitude from the reviewer. Added to this, there is often a lack of explicitness: it is rare to find an account of a piece of research that systematically lays out what was done, why it was done and discusses the various implications of those choices. The reviewer needs to appreciate some of the reasons for the lack of explicitness. First, it takes considerable effort and time to express ideas in writing. Secondly, limitations placed on space or word counts often result in editing not deemed ideal by the author. Also, being explicit exposes the research (and researcher) to critical inspection. Presumably, many able researchers do not publish widely so as to avoid such criticism.

The need for open-mindedness

As we saw earlier, competence in reading research is not easily acquired. It is a part of the process of research training and education. It takes time and a willingness to face challenges, acquire new understandings and have sufficient openness of mind to appreciate that there are other views of the world. This begins by recognizing that the reviewer undertakes a review for a purpose – and an author writes for a purpose. While an author may not always make their ideas clear, consistent and coherent, the reviewer is required to exercise patience when reading. The reviewer needs to assume (no matter how difficult the reading) that the author has something to contribute. It is therefore important to make the effort to tease out the main ideas from the text under consideration. It also means making the effort to understand why you are having difficulty in comprehending the text. This means not categorizing the text using prejudicial perceptions of the subject discipline, but instead placing the research in the context of the norms of the discipline and not judging it by the practices of the discipline with which you are most familiar.

As a part of this attitude the researcher needs to exercise a willingness to understand philosophical (or methodological) traditions. The choice of a particular topic, together with the decision to research it using one specific strategy rather than another and to present it in a certain style, are design decisions often based on prior commitments to a view of research. An individual piece of research can therefore be placed, in general terms, in an intellectual tradition such as positivism or phenomenology. But the reviewer needs to take care not to criticize that research purely on general terms and especially from different standpoints. The different intellectual traditions need to be appreciated for what they are and not for what they are assumed to lack from another standpoint.

This can be illustrated with a brief example. Many social science students will have come across ethnomethodology, but apart from a few notable exceptions, ethnomethodology is quickly passed over in most programmes of study. We have found, from experience, that this is often due to the extreme difficulty of understanding what ethnomethodology is

about and how to do an ethnomethodological study. An example from the work of the founder of ethnomethodology, Harold Garfinkel, illustrates this point. This is the title from a recent article by him: 'Respecification: evidence for locally produced, naturally accountable phenomena of order, logic, reason, meaning, method, etc. in and as of the essential haecceity of immortal ordinary society (I) – an announcement of studies' (Garfinkel, 1991: 10).

Those unfamiliar with ethnomethodology might now appreciate the difficulties in merely understanding what Garfinkel is trying to say. But there are two very relevant points here. The first is that tenacity is required to understand an approach such as ethnomethodology. Simply because Garfinkel's work is not instantly recognizable as sociology is not sufficient reason to dismiss it. Secondly, Garfinkel's ideas might be important – if they are dismissed because the reader is not willing to invest time and effort, then an important opportunity for learning might be missed. The only way to become competent enough to comment on complex ideas, such as those proposed by Garfinkel, is to read the works of the theorist and follow through what is said.

The assumptions discussed in this section are the basis for later chapters. Collectively what they amount to is an operationalization of scholarship and good manners in research. They also signpost the need for reviewers of research to be informed about, and to be able to demonstrate awareness of, the different styles and traditions in research.

THE ROLE OF THE LITERATURE REVIEW

The product of most research is some form of written account, for example, an article, report, dissertation or conference paper. The dissemination of such findings is important because the purpose of research is to contribute in some way to our understanding of the world. This cannot be done if research findings are not shared. The public availability of research findings means that accounts of research are reconstructed 'stories' – those serendipitous, often chaotic, fragmented and contingent aspects of most research (the very things that make research challenging!) which do not find their way into the formal account. We therefore need to get an initial understanding of what the role of the literature review is and where it fits into the thesis or dissertation.

The structure of the formal report for most research is standardized and many of the sections found in a report are also found in a proposal for research (see Table 1.3 overleaf). The full arrangement for the research proposal is shown in Appendix 1. Within this arrangement the author of the account usually employs a range of stylistic conventions to demonstrate the authority and legitimacy of their research and that the project has been undertaken in a way that is rigorous and competent.

Table 1.3

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Table 1.3 *Some sections commonly found in both a research proposal and report*

Section	Aim
Introduction	To show the aims, objectives, scope, rationale and design features of the research. The rationale is usually supported by references to other works which have already identified the broad nature of the problem.
Literature review	To demonstrate skills in library searching; to show command of the subject area and understanding of the problem; to justify the research topic, design and methodology.
Methodology	To show the appropriateness of the techniques used to gather data and the methodological approaches employed. Relevant references from the literature are often used to show an understanding of data-collection techniques and methodological implications, and to justify their use over alternative techniques.

From Table 1.3 you can see that the review of related literature is an essential part of the research process and the research report – it is more than a just stage to be undertaken or a hurdle to be overcome. Figure 1.2 (p. 14) shows some of the questions that you will be able to answer from undertaking a literature review on your topic.

The literature review is integral to the success of academic research. A major benefit of the review is that it ensures the researchability of your topic before 'proper' research commences. All too often students new to research equate the breadth of their research with its value. Initial enthusiasm, combined with this common misconception, often results in broad, generalized and ambitious proposals. It is the progressive *narrowing* of the topic, through the literature review, that makes most research a practical consideration.

Narrowing down a topic can be difficult and can take several weeks or even months, but it does mean that the research is more likely to be completed. It also contributes to the development of your intellectual capacity and practical skills, because it engenders a research attitude and will encourage you to think rigorously about your topic and what research you can do on it in the time you have available. Time and effort carefully expended at this early stage can save a great deal of effort and vague searching later.

Definition: Literature review

The selection of available documents (both published and unpublished) on the topic, which contain information, ideas, data and evidence written from a particular standpoint to fulfil certain aims or express certain views on the nature of the topic and how it is to be investigated, and the effective evaluation of these documents in relation to the research being proposed.

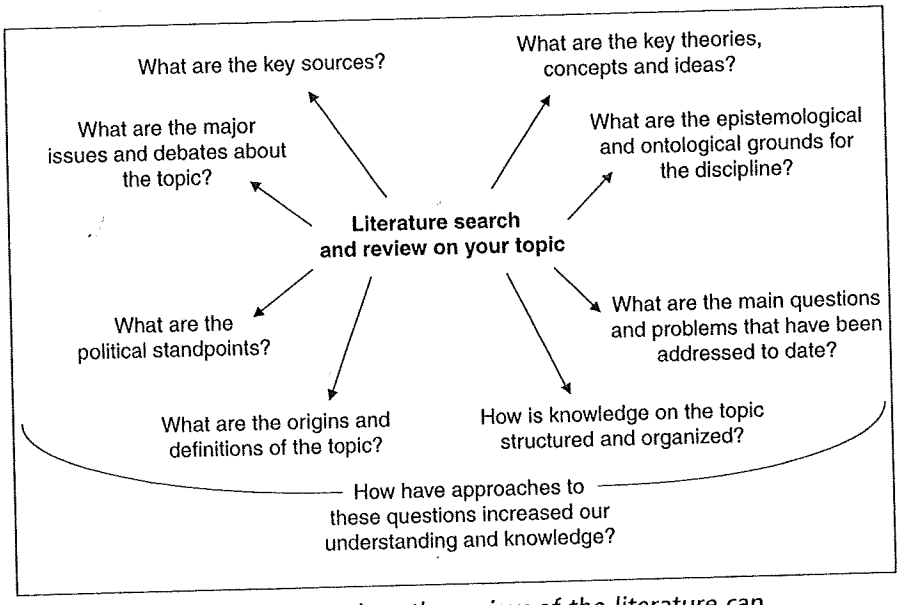

Figure 1.2 *Some of the questions the review of the literature can answer*

REVIEWING SKILLS AND THE POSTGRADUATE THESIS

A major product of academic programmes in postgraduate education is the thesis. This section will look at the place of the literature review in relation to the thesis. It will attempt to outline some of the dimensions and elements that provide evidence for assessing the worthiness of a thesis. Whereas undergraduate projects are often assessed according to pro forma marking schedules, a postgraduate thesis is assessed for its worthiness and the literature review plays a major role in the assessment. A problem, however, is saying just what constitutes an undergraduate dissertation or project and how this differs from, say, a master's thesis, although this is not the place to look closely at this question. Table 1.4 (p. 15) provides a summary of the function and format of the literature review at these different levels.

Note that the main concern is not only to satisfy assessors but to produce a competent review of a body of literature. The two descriptions that follow are not intended to be read as separate criteria for a master's and for a doctorate. Rather, they are intended to be read as guides to what might be expected from postgraduate research. We begin with the master's, which also gives the necessary prerequisite skills for a doctorate.

The master's

What we will focus on here is the skills element necessary for the master's thesis. If we take research for a master's thesis as being a significant piece

Table 1.4 *Degrees and the nature of the literature review*

Degree and research product	Function and format of the literature review in research at these levels
BA, BSc, BEd *Project*	Essentially descriptive, topic focused; mostly indicative of main, current sources on the topic. Analysis is of the topic in terms of justification.
MA, MSc, MPh *Dissertation or thesis*	Analytical and summative, covering methodological issues, research techniques and topics. Possibly two literature-based chapters, one on methodological issues, which demonstrates knowledge of the advantages and disadvantages, and another on theoretical issues relevant to the topic/problem.
PhD, DPhil, DLitt *Thesis*	Analytical synthesis, covering all known literature on the problem, including that in other languages. High level of conceptual linking within and across theories. Summative and formative evaluation of previous work on the problem. Depth and breadth of discussion on relevant philosophical traditions and ways in which they relate to the problem.

of investigative work, then the following opportunities (or educational aims) are embodied in that investigation.

1 An opportunity is provided for the student to design and carry out a substantial piece of investigative work in a subject-specific discipline. The review of related and relevant literature will be very important to the research whether in the field or from a desk.
2 An opportunity is provided to take a topic and, through a search and analysis of the literature, focus it to a researchable topic. This puts to the test the student's ability to search for and manage relevant texts and materials and to interpret analytically ideas and data.
3 An opportunity is provided for the student to recognize the structure of various arguments and to provide cogent, reasoned and objective evaluative analysis. This puts to the test the ability to integrate and evaluate ideas.

As the product of your time and research the master's thesis (which at master's level may also be called the *dissertation*) is a learning activity. The intent of the activity is that you acquire a range of skills at an appropriate level that are related to doing capable and competent research. The thesis is the evidence that you have acquired the necessary skills and can therefore be accredited as a competent researcher. The kinds of skills needed are those associated with research design, data collection, information management, analysis of data, synthesis of data with existing knowledge and evaluation of existing ideas along with a critical evaluation of your own work. We will look at these important points in more detail in a moment. Remember that your thesis is the only opportunity you will have to demonstrate your ability to apply these skills to a particular topic: this

demonstration *is* the thesis. So, the thesis should be coherent and logical, and not a series of separate and inadequately related elements. There should be clear links between the aims of your research and the literature review, the choice of research design and means used to collect data, your discussion of the issues, and your conclusions and recommendations. To summarize, we can say that the research should:

1 focus on a specific problem, issue or debate;
2 relate to that problem, issue or debate in terms that show a balance between the theoretical, methodological and practical aspects of the topic;
3 include a clearly stated research methodology based on the existing literature;
4 provide an analytical and critically evaluative stance to the existing literature on the topic.

A master's thesis is therefore a demonstration in research thinking and doing. It is intended to show that the student has been capable of reasoning over which methodological approach to employ. It is also a demonstration on how to operationalize key concepts of methodology through the use of a range of data-collection techniques.

There are, then, a range of skills that often form the basis for the criteria on which a master's thesis is assessed. Table 1.5 (overleaf) provides an overview of the criteria normally used for assessing the worthiness of a master's thesis and it also shows how an excellent piece of work can be distinguished from a poor one. It may be useful, at this stage, to say a little more about some of the general skills and capabilities. Here we have picked out four that are very important and which require special attention by the research student.

Prior understanding You will be expected to demonstrate a sufficient level of prior understanding of the topic and methodology. The focus for these is usually in the literature review and chapter on methodology. The latter, is, of course, often heavily dependent on the use of the literature dealing with methodology. Therefore, if your main methodology was survey based you would be expected to show familiarity with the literature on surveys. This might involve critical appraisal of key works that advocate a positivistic approach to research, identifying core authors and relevant studies as exemplars to justify your choice of approach. This involves the construction of an argument. The literature will help you to provide evidence and substance for justifying your choice. At the same time you will become familiar with the literature on the methodology and be able to show this in your thesis.

Perseverance and diligence You will not normally find all the information you require in a few weeks. You will therefore need to be persistent in

Table 1.5 *Criteria for assessing a master's dissertation*

	Excellent and distinctive work	Competent work	Significantly deficient work
Aims, objectives and justification	Clear aims able to be operationalized. Explanation of the topic with succinct justification using the literature. Shows full awareness of the need to focus on what is able to be done.	Clear aims and objectives. Acceptable justification with identification of the topic.	Aims and objectives unclear due to no logical connections between them. Insufficient attempt to justify the topic. Actual topic not clear due to lack of focus.
Methodology and data collection	Choice of methodology explained in comparative terms showing considerable evidence of reading and understanding. Overall research design abundantly clear and logical for the student to apply. Strengths and weaknesses in previously used methodologies/data-collection techniques are recognized and dealt with.	Methodology described but not in comparative terms; so no explanation given for choices; nevertheless, an appropriate methodology employed. Research techniques clear and suitable for the topic. May have replicated weaknesses or bias inherent in previous work on the topic.	No explanation of the methodology, its choice or appropriateness for the research. No indication of reading on methodology or data-collection techniques, so no demonstration of ability to collect data in a systematic way. No overall research design.
Literature review and evaluation	Thorough review of the relevant literature; systematically analysed and all main variables and arguments identified. Critical evaluation firmly linked to justification and methodology.	Review of the main literature with main variables and arguments identified. Some links made to methodology and justification.	No review of the literature; annotations of some items but no attempt at a critical evaluation, therefore no arguments or key variables identified relevant to the topic. No bibliography or too large a bibliography to have been used.

continued overleaf

Table 1.5 (*continued*)

	Excellent and distinctive work	Competent work	Significantly deficient work
Style and presentation, including the use of graphic materials	Clear and cohesive structure. Very well presented with accurate citations and bibliography. Impressive use of visual and graphic devices, and effective arrangement of materials. Accurate and proper use of English, employing scholarly conventions.	Clear structure and arrangement of materials with accurate citations, appropriate use of visual and graphic devices.	Structured presentation but very thin on substantive content. Citations mostly correct but not consistent. Little evidence of thought about the use of visual or graphic devices. Sloppy use of language.
Overall coherence and academic rigour	Systematic and considered approach; critically reflexive; clarity and logic in the structuring of argument; proper use of language; assumptions stated; charity of interpretation; identification of gaps and possibility for further research. Of a publishable standard.	Considered approach; clarity in the structure of presentation; satisfactory use of language; assumptions mostly stated, though some implicit; conclusions and ideas for further research identified.	Not a considered approach therefore no planning evident. Poor use of technical terms and overuse of cliché. No argumentative structure evident. Some attempt at interpretation, but not based on the data.

your work. This is especially the case with the search of the literature. Initial search strategies may not reveal what you might have wanted; you therefore need to be flexible and search more widely or use more complex combinations of words and phrases. Persistence also means being thorough in your search; by making detailed records of how you managed the administration of the activity. This is because a comprehensive search for the literature on a topic is very much a matter of managing the administration of search sheets, records, databases, references located, items obtained and those ordered from the library, and so on. The use of all relevant sources and resources is therefore required to be shown in your thesis. This can be written up in the methodology chapter or the review of the literature.

Justification A major requirement is that you provide sufficient argument to justify the topic for your research which means showing that what you propose to research is worthy of research. This involves the use of existing literature to focus on a particular context. The context might be, for example, methodological, in that you propose to employ a methodology on a topic in an area in which it has not previously been used. This might involve constructing an argument to show how a methodology relates to the topic and thereby suggest what its potential might be. Alternatively, you might provide a summative or integrative review. This would involve summarizing past research and making recommendations on how your research will be an addition to the existing stock of evidence. In this case you would be proposing to apply a tried approach to your topic. Whatever you use as the focus for your justification one thing must always be seen: evidence from the literature. You are therefore expected to avoid using personal opinions and views and never submit a statement without sufficient backing.

Scholarly conventions You are required to use the literature in a way that is proper. At the most basic level this means citing references in a standard format recognized by the academic community. You will find guidance on this in Appendix 2. It also means using the literature in a way that is considered and considerate. You might not be able to cite all the references that you locate in your search. You will therefore need to exercise judgement as to which references are the most important, that is, the most relevant to your purpose. An attitude of critical appraisal will be necessary to avoid simplistic summative description of the contents of articles and books. This involves being charitable to the ideas of others while at the same time evaluating the usefulness of those ideas to your own work.

The master's is a limited piece of research. Taking approximately 10,000 to 15,000 words, the thesis or dissertation is a relatively modest piece of writing equivalent to, say, three or four extended essays. Its key elements are: the research; design of the research; application of data-collection techniques; management of the project and data; and interpretation of the

findings in the context of previous work. To do these things in a way that is scholarly demands effective management of the research. A summary of the standards required is given in Appendix 3.

The doctorate

There appear to be seven main requirements, generally agreed across the academic profession, covering the content, process and product of a doctoral thesis. These are:

1 specialization in scholarship;
2 making a new contribution to an area of knowledge;
3 demonstrating a high level of scholarship;
4 demonstrating originality;
5 the ability to write a coherent volume of intellectually demanding work of a significant length;
6 the ability to develop the capacity and personal character to intellectually manage the research, including the writing of the thesis;
7 showing in-depth understanding of the topic area and work related to the research.

We might also add an eighth criterion; one more specific to the doctoral viva:

8 defending orally what was produced in terms of the reason for doing the research and choices over the way it was done.

These statements do not capture the scope and depth of all doctoral research. They do, however, provide a set of requirements which show the crucial importance of the literature review in the research process and in the content of the thesis itself. The first three show the input that can be made by a thorough search and reading of related literature. It is these, together with demonstrating originality, that will now be discussed.

Specialization Although some universities allow candidates to enroll for higher degrees without a first degree the model used here assumes an academic career in which scholarship is developmental and not conveyed through a title. That career normally consists of a first degree followed by postgraduate work, both of which can be full-time or part-time study. Through an academic career a student gradually acquires a cumulative range of skills and abilities, and focuses their learning on a subject-specific knowledge. The availability of choice of degree and options within degrees means that subject specialization of some form is inevitable. In terms of skills and ability most undergraduates are expected to acquire and develop a wide range of personal transferable skills. Figure A4.1 in Appendix 4 gives an indication of the information management task involved in

reviewing a literature; Appendix 4 also includes guidance on how to manage the technical elements of the review.

The raw materials, for undergraduate work, commonly in the form of articles from journals, periodicals, anthologies and monographs, are the ideas of other people, usually the 'founding theorists' and 'current notables' of the discipline. In order to understand the specifics of the subject, it is essential that the undergraduate comes to terms with the ideas of the founding theorists and current notables. Only when they have done this will they have sufficient subject knowledge to be able to talk coherently about and begin to analyse critically the ideas of the subject. This means demonstrating comprehension of the topic and the alternative methodologies that can be used for its investigation.

While it might be possible to reach a level of advanced standing without an appropriate intellectual apprenticeship, the academic career is likely to be a more reliable method of acquiring the in-depth knowledge demanded of a doctoral student. There are sound academic reasons for the academic career as preparation for higher degrees research. The ability and capacity to manage cognitively massive amounts of information, play with abstract ideas and theories and have insights is usually gained through intensive academic work and not short-term, drop-in programmes, or the production of occasional publications.

Making a new contribution The section on originality which follows relates to what is said here, that the requirement for postgraduate research to advance understanding through making a new contribution, is directly dependent upon knowledge of the subject. That knowledge can only be obtained through the work and effort of reading and seeking out ways in which general ideas have been developed through theory and application. This process requires from the researcher the kinds of skills already mentioned in relation to using libraries. But it also requires a spirit of adventure (a willingness to explore new areas), an open attitude that avoids prejudging an idea and tenacity to invest the time and effort even when the going gets tough.

What we are talking about here is resisting the temptation to make prior assumptions about any idea or theory until one is knowledgeable about that idea. This involves the spirit of research: looking for leads to other works cited by the author which have influenced their thinking. Garfinkel's ethnomethodology, for example, like many other new and interesting developments in all subject fields, did not emerge from nothing. It was a development from an existing set of theories and ideas. Garfinkel systematically worked through a range of existing theories in order to see where some ideas would lead if applied. Through his reading and thinking he was able to explore, in the true spirit of adventure, the foundations and boundaries of social science.

What enabled Garfinkel to make a new contribution, even though the amount of work he has produced is relatively small, was his ability to see

possibilities in existing ideas. Making new insights is not merely about being able to synthesize difficult and large amounts of materials, it also involves knowing how to be creative and, perhaps, original. It cannot be overemphasized, however, that to make a new contribution to knowledge you do not have to be a genius. The size of the contribution is not what matters, it is the quality of work that produces the insight. As you will see shortly, originality can be defined and is often systematic rather than *ad hoc*.

Demonstrating a high level of scholarship As we have noted earlier, the thesis is the only tangible evidence of the work and effort that has gone into the research. For this reason it needs to provide enough evidence, of the right type and in an appropriate form, to demonstrate that the desired level of scholarship has been achieved. A key part of the thesis which illustrates scholarship is the review of the literature. It is in this section that the balance and level of intellectual skills and abilities can be fully displayed for scrutiny and assessment.

The review chapter might comprise only 30 to 40 pages, as in a doctoral thesis, or 15 to 20 in a master's thesis, although the actual length often depends on the nature of the research. Theory-based work tends to require a longer review than empirical work. Either way this is a very short space to cover all that is required and expected. Typically, the review chapter is an edited down version of the massive amount of notes taken from extensive reading. The material of all reviews consists of what has been searched, located, obtained and read, but is much more than separate items or a bibliography. The reader of the thesis is being asked to see this literature as representing the sum total of current knowledge on the topic. It must also demonstrate the ability to think critically in terms of evaluating ideas, methodologies and techniques to collect data, and reflect on implications and possibilities for certain ideas. Scholarship therefore demands a wide range of skills and intellectual capabilities.

If we take the methodological aspect of the thesis we can see that underpinning all research is the ability to demonstrate complete familiarity with the respective strengths and weaknesses of a range of research methodologies and techniques for collecting data. It is therefore important to read widely around the literature on the major intellectual traditions such as positivism and phenomenology. This is because it is these traditions that support and have shaped the ways in which we tend to view the nature of the world and how it is possible to go about developing knowledge and understanding of our world. Knowledge of historical ideas and theories, or philosophy and social theory, is essential. In a similar way to skills, knowledge of, say, Marx or the postmodernists might be seen as essential personal transferable knowledge.

As a researcher you must also demonstrate the ability to assess methodologies used in the discipline or in the study of the topic in order to show clear and critical understanding of the limitations of the approach.

This will show your ability to employ a range of theories and ideas common to the discipline and to subject them to critical evaluation in order to advance understanding. It involves demonstrating the capacity to argue rationally and present that argument in a coherent structure. So, you need to know how to analyse the arguments of others – the reader of your thesis (an external examiner) will be looking to see how you have analysed such theories and how you have developed independent conclusions from your reading. In particular, your reader will be interested to see how you develop a case (argument) for the research you intend to undertake.

Demonstrating originality The notion of originality is very closely related to the function of the search and analysis of the literature. We have already indicated that through a rigorous analysis of a research literature one can give focus to a topic. It is through this focusing process that an original treatment of an established topic can be developed. Placing aside until later chapters how this has and can be done, we need to turn our attention here to the concept of originality. In Figure 1.3 (p. 24) we show some of the associations that can be made from the different definitions of originality. Use these to grasp the meaning of the term. This is important because in academic research the aim is not to replicate what has already been done, but to add in some way, no matter how small, something that helps further our understanding of the world in which we live.

All research is in its own way unique. Even research that replicates work done by another person is unique. But it is not original. Being original might be taken to mean doing something no one has done before, or even thought about doing before. Sometimes this kind of approach to thinking about originality equates originality with special qualities assumed to be possessed by only a few individuals. The thing to remember is that originality is not a mysterious quality: it is something all researchers are capable of if they know how to think about, manage and play with ideas.

There is an imaginary element to research. This is the ability to create and play with images in your mind or on paper, reawakening the child in the adult. This amounts to thinking using visual pictures, without any inhibitions or preconceived ideas and involves giving free rein to the imagination.

Theorists such as Einstein attribute their ideas to being able to play with mental images and to make up imaginary experiments. This technique is used to make connections among things that you would not normally see as connectable. Einstein, for example, described how he came to think about the relativity of time and space in the way he did by saying it all began with an imaginary journey. Einstein was able to follow his fantasy through to produce his famous equation $e = mc^2$.

The point to note is that Einstein's journey was a small episode; something most of us are capable of experiencing. Einstein's achievement was in following through his ideas to their theoretical conclusions. He stopped short his work when he realized that his ideas could have a dark side: the

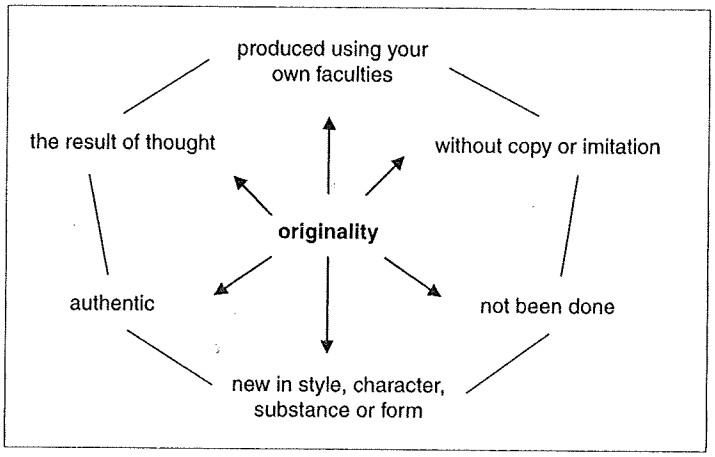

Figure 1.3 *Map of associations in definitions of originality*

development of a nuclear weapon (it is reassuring to know that very few people will find themselves in a similar situation to that of Einstein). It is sufficient to say that such episodes are an essential part of the research imagination. You will often find yourself having such episodes as a part of the thinking process. You will often find yourself understanding things that just a few days or weeks previously seemed difficult or incomprehensible because, as you apply more energy to your topic, you will increase your capacity for understanding. Therefore, notions and beliefs about having to be some kind of genius in order to be original can be placed to one side. Once this is done we might be able to see and learn how to be original in research.

Phillips and Pugh (1994), in their study of doctoral research, identified nine definitions of what it means to be original. These are:

1 doing empirically based work that has not been done before;
2 using already known ideas, practices or approaches but with a new interpretation;
3 bringing new evidence to bear on an old issue or problem;
4 creating a new synthesis that has not been done before;
5 applying something done in another country to one's own country;
6 applying a technique usually associated with one area to another;
7 being cross-disciplinary by using different methodologies;
8 looking at areas that people in the discipline have not looked at before;
9 adding to knowledge in a way that has not previously been done before.

The list presented by Phillips and Pugh is close to what might be expected from doctoral students, since it is oriented towards methodology and

scholarship. It assumes the student already has an understanding of a subject knowledge.

CONCLUSION

There is no such thing as the perfect review. All reviews, irrespective of the topic, are written from a particular perspective or standpoint of the reviewer. This perspective often originates from the school of thought, vocation or ideological standpoint in which the reviewer is located. As a consequence, the particularity of the reviewer implies a particular reader. Reviewers usually write with a particular kind of reader in mind: a reader that they might want to influence. It is factors such as these that make all reviews partial in some way or other. But this is not reason or excuse for a poor review, although they can make a review interesting, challenging or provocative. Partiality in terms of value judgements, opinions, moralizing and ideologues can often be found to have invaded or formed the starting point of a review. When reading a review written by someone else or undertaking a review, you should be aware of your own value judgements and try to avoid a lack of scholarly respect for the ideas of others.

Producing a good review need not be too difficult. It can be far more rewarding than knocking something up quickly and without too much intellectual effort. A large degree of satisfaction can be had from working at the review over a period of time. For a master's or doctoral candidate this might be up to a year or more. A large measure of that satisfaction comes from the awareness that you have developed skills and acquired intellectual abilities you did not have before you began your research.