

Part One

Becoming a Critical Reader and
Self-Critical Writer

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What it Means to be Critical



Keywords

academic traditions; critical reading; discernment; scepticism; self-critical writing

洞察力

You may already be a more critical reader than you realize. Take a look at this fictional advertisement and think about how you would respond to it.

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WHY DO IT THE HARD WAY when you can be rich NOW!!!

It took me five years to make my first million. I made my second million in six weeks. Now I just can't stop making money. I own four luxury villas on three continents, five top-of-the-range sports cars and my own helicopter. Most important of all, the financial security of my family is ensured.
大陆

Now I want to share my good fortune with you. By following my simple instructions you too can be a millionaire within just a few months. There is no risk and it just can't fail. I have already helped hundreds of people attain their dream of

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a new life. They are so grateful to me – no longer do they worry about domestic bills, healthcare or their children's education. Their future is certain. And yours can be too.

Just call me on the number below, and I will send you my introductory pack *free of charge*. It will explain to you how my failsafe method can bring you guaranteed wealth and happiness. Call now, and let your life change forever for the better.

The advertisement promises to make you a millionaire. Would you call the phone number? If not – or if you are not sure whether you would – why is that? The introductory pack is free. Your financial worries could soon be over. What would stop you picking up the phone?

The fact is that we do not necessarily take everything we read at face value, nor should we. Our life's experiences make us suspicious of advertisements like this. We might ask: 'Are you as rich as you claim? Why do you want to help people you have never met? Is your method legal and ethical? Is there really no risk? Would I just end up making you richer, at my own expense? If your method is so wonderful, why have I never heard of it before? What will you do with my personal details once I give them to you? How much will the phone call cost?'

These are all critical questions. They indicate that you can see more in a text than is presented on the surface. You are looking for a hidden agenda, the author's real purpose. You are relating what you read to what you already know about the world. It is a sad reflection upon that world, perhaps, but we rarely expect to get something for nothing and we sometimes expect that people will try to trick us.

Learning to be critical in academic enquiry

Academic writing is generally much more benign. We do not normally expect authors to be lying or trying to swindle us. But that does not mean there are not hidden layers to an academic text. A critical approach to the reading of a journal article or book is therefore essential if we are to assess the value of the work it reports. Certain expectations underpin the way in which academic writing operates. The most fundamental expectation is that any claim will be backed up by reasons based on some form of evidence. So, the reader asks at every point: 'Have you given me sufficient grounds for accepting your claim?' Such a question need not imply that authors are

untruthful. In most fields of enquiry it is not a matter of truth, but of viewpoints, interpretation and significance. As readers we are attempting to find common ground between our own understandings and beliefs, and those of the authors. That can only be done by thinking about the extent to which the claims and supporting evidence in a text – which satisfied the authors – also satisfy us.

Since each person has different knowledge and experience, it is sensible for the reader to adopt a critical frame of mind that maintains a distance from, and friendly scepticism towards, what authors say. In reading an academic article, we might keep in our mind these sceptical provisos:

- The authors mean to be honest, but may have been misled by the evidence into saying something that I consider untrue.
- The authors mean to be logical, but may have developed a line of reasoning that contains a flaw.
- The authors mean to be impartial, but may have incorporated into the account some assumptions that I don't share.
- The authors mean to tell me something new, but may not have taken into account other information that I possess.

Reasonable scepticism means being open-minded and willing to be convinced, but only if authors can adequately back their claims. It entails striking a balance between what one expects and what one accepts. No study can achieve everything. The critical reader is not put off by the limitations of a study, but will expect authors to interpret their investigation in a way that takes account of those limitations. Accomplished authors will clearly signal to the reader the basis for their conclusions and the confidence they have in any generalizations they make.

Most novice critical readers take a while to learn how to interpret authors' signals, and to work out how to respond to them. Often, part of the learning process is that one goes too far towards one or both extremes – uncritical acceptance or overcritical rejection of authors' claims – before finding a happy medium. Learning the knack of reasonable scepticism is, of course, particularly challenging because published material does vary in its rigour and reliability.

To assess your current ability to evaluate what you read, consider the short (fictional) extract below from a paper published in 2005 by someone we have called Browning. What questions might you, as a critical reader, ask of the author in relation to the claims made? The account refers to a study where some children were taught to read using the *phonics* method (sounding out words on the basis of the component letters) and others were taught using the *whole word* method (learning to recognize and pronounce complete words).

In the reading test, the five children who were taught to read using phonics performed better overall than the five children taught using the whole word method. This shows that the phonics method is a better choice for schools.

Your questions might include:

- Is a study of just ten children sufficient to draw such a strong conclusion?
- What does ‘performed better overall’ signify? Did some children taught using the whole word method perform better than some children taught using phonics? If so, what does this mean for the results?
- Were the differences between the two groups sufficiently great for us to be satisfied that they would occur in a re-run of the experiment with different subjects?
- How were the two teaching programmes administered, and might there have been ‘leakage’ of whole word teaching into the phonics teaching and vice versa?
- What was the reading test actually testing, and might it have been unintentionally biased to favour the children taught using phonics?
- What care was taken to check how parental involvement at home might have influenced what and how the children learned?
- Were the two sets of five children matched for intelligence, age, gender or other factors?
- Is it reasonable to infer that what works well in a small experimental study will work well in school environments?
- How does Browning envisage phonics being used in schools? Would there still be a place for the whole word method?

Some such questions asked of a short, decontextualized extract like this will almost certainly be answered elsewhere in the text. That is where to look first. But other questions may remain unaddressed, leaving you to seek your own answers or to consider the risk entailed in accepting the report without answering them. Suppose the text is central to your study for an essay, so that you want to comment on it in detail. Then you will need to include some account of the weaknesses that your critical questions raise, as a balance to your description of what the authors are claiming. Here is an indication of how, in an essay, you might comment on a published text that is useful, but not perfect.

Browning (2005) found that children taught to read using phonics did better in a reading test than children taught using the whole word method. However, the study was small, the test rather limited, and the subjects were not tightly matched either for age or gender. An examination of Browning’s test scores reveals that, although the mean score of the phonics group was higher, two of the highest scorers in the test were whole word learners. Since this indicates that the whole word method is effective for some learners at least, Browning is perhaps too quick to propose that ‘the phonics method is a better choice for schools’ (p. 89).

Your critical reading of others' work will usually be in preparation for producing your own written text. This marriage of reading and writing has many benefits. First, you will develop a sense of what is and is not a robust piece of research – essential when you come to plan your own empirical investigation (for a dissertation, say). Second, you will soon begin identifying where the existing research has left a gap that your investigation can fill. Third, the attention you pay to different authors' texts will naturally affect the quality of your own writing. You will soon:

- demand of yourself evidence to back up your claims;
- be alert to the possibility of making an illogical jump in your reasoning;
- become sensitive to your own assumptions and how they might affect your claims;
- realize the importance of checking the literature thoroughly to ensure that your understanding is sufficiently deep.

In short, you will develop a mature academic style of writing that is both fair and discerning in its accounts of others' work, and that maximizes the opportunity for others to take seriously what you have to say.

The skill of critical reading lies in assessing the extent to which authors have provided adequate justification for the claims they make. This assessment depends partly on what the authors have communicated and partly on other relevant knowledge, experience and inference that you are able to bring into the frame.

The skill of self-critical writing lies in convincing your readers to accept your claims. You achieve this through the effective communication of adequate reasons and evidence for these claims.

Academic traditions and styles

All academic traditions require a critical engagement with the works of other scholars. However, some traditions emphasize it more than others. Depending on where you have been educated till now, you may have been encouraged to take predominantly one or another approach to what you read and write. Let us point to the opposite ends of a particular dimension in these traditions: student-centred learning versus knowledge-centred learning. Both have a role for the balanced learner, but neither should be taken to an extreme. Table 1.1 illustrates what can happen at the extremes, and how mature academics must strike a reasonable balance between their own ideas and those

of others. Try using these descriptions to help you judge where your educational experience has located you on the continuum.

Table 1.1 Targeting an effective balance between different academic traditions

Too student-centred (values imaginative thought even if not fully grounded in established theory and knowledge.)	Target balance (appropriately reflects fair and constructively critical reading.)	Too knowledge-centred (values traditional wisdom over the views and experience of the academic apprentice.)
Too easily dismisses the expertise of others.	Assumes authors are knowledgeable, while remaining alert for possible flaws in the reasoning.	Takes too much at face value.
Fails to see the big picture.	Juxtaposes the overall picture with the specifics of particular situations.	Fails to see implications of generalized ideas for a specific context.
Underestimates the task of becoming truly knowledgeable about a model or idea.	Is prepared to criticize a model or idea, while retaining a sense of what authors might say in reply.	Believes it is sufficient to be knowledgeable about a model or idea.

The purpose of student-centred learning is to help individuals gain confidence in developing their own ideas, achieved by using existing knowledge as a stepping stone on the way to originality. In knowledge-centred learning, individuals are encouraged to become aware of existing scholarship and to value it above their own ideas as a novice. Ultimately, both traditions are aspects of the same thing: individuals make a personal effort to contribute something new to an existing bank of respected knowledge. However, the assumptions underlying each tradition do make a difference to how scholars operate. Typically, the rhetoric of the western-style tradition emphasizes the importance of the individual. Western-educated students can easily over-interpret this emphasis and forget to give sufficient importance to the work of others. In contrast, non-western-educated students may be intimidated by the sudden emphasis on what they think.

The term ‘critical reading’ is often associated with individuals trying to show why their own interpretation of some idea or observation is better than someone else’s. It may seem, then, that someone from a student-centred learning tradition is at an advantage in learning to be a critical reader. Not necessarily. Students from both traditions bring something useful to the task and have pitfalls to avoid. The techniques introduced in this book bring together skills from each tradition.

Being critical as a requirement of academic study

Just what is expected in postgraduate study? Here is an example description of key skills.

Critical thinking and creativity: managing creative processes in self and others; organising thoughts, analysis, synthesis, critical appraisal. This includes the capability to identify assumptions, evaluate statements in terms of evidence, detect false logic or reasoning, identify implicit values, define terms adequately and generalise appropriately. (Extract from 'Skills for all Masters programmes', subject benchmark statement from the *Masters Awards in Business and Management*, Quality Assurance Agency for Higher Education (UK), www.qaa.ac.uk/academicinfrastructure/benchmark/masters/MBAintro.asp)

The critical skills here can be boiled down to the capacity to evaluate what you read and the capacity to relate what you read to other information. Applying these skills to any academic text involves looking out for its potential strengths and weaknesses.

Evaluation is important. If knowledge was simply a set of facts, we could take all that we read at face value. However, knowledge is only partly about the facts themselves. Knowledge also entails their *interpretation* and the use of past facts to help us make predictions about future facts. It often also entails the *evaluation* of facts against certain assumed values. For instance, it was assumed in the earlier discussion about phonics and whole word reading that it is desirable for children to learn to read efficiently and effectively. If you take away that assumption, the facts will be open to different interpretations. It can be a shock to the university student when first discovering that facts can be interpreted in diverse ways, leading to very different predictions about what will happen in the future, or judgements about what should happen.

The critical reading of a text is rarely about questioning the facts. Mostly it is about assessing the quality of the case that has been made for interpreting and evaluating the facts in some way. Thus, the critical reader is interested in whether there is sufficient evidence to support a claim, whether there is another possible interpretation that has not been considered, and perhaps whether the authors have argued convincingly that their interpretation applies to other cases.

The critical reader can achieve this by focusing on several potential objects of scrutiny. They include:

- the evidence provided in the account;
- whether the reasoning of the author's argument follows logically to the conclusion that has been drawn;

- explicit or implicit indications of the author's values and assumptions;
- the match between the author's claims and those of other authors;
- the match between the author's claims or predictions and the reader's own research evidence or knowledge.

To engage thoroughly with a text, the reader ideally needs to have a clear understanding of what the authors are doing, sufficient knowledge of the field of enquiry and (where possible) reliable evidence of his or her own, or at least some reliable intuitions about the way things work in the real world. But no readers have the necessary time or expertise always to put themselves in this advantageous position. The art, then, is to know how far to go with any text. This, in turn, will depend on how central the text is to the study activity that one is involved in, and one's goals in reading it. Maintaining a sense of why you are reading a text makes evaluating it much easier.

Task-driven critical reading

It should always be possible beforehand to state why you are going to read a book or journal article. Reasons might be:

- You have been told to read it in preparation for a class.
- You are doing background reading on your subject, just to get your bearings.
- It reports a particular approach or technique that you want to see in action.
- It addresses a particular question that you want to know the answer to.
- You are looking for evidence to counter-balance something else that you have read.
- You have a particular story to tell, and you need some supporting evidence for it.

Irrespective of your reason for reading a text, it is worth having one or more questions in mind whose answers will help you progress your own work. A broad question addressed to the author such as 'What did you do, and what did you find out?' will be best answered with a straight description of the content of the paper. However, more finely tuned questions will help you focus on specific issues, while automatically providing a direct route into critical reading. For example: 'Is this author's method of investigation the best one for me to emulate in my own work? How does this author's position compare with that of another author whose work I've read? Would this author challenge the claims that I am making in my own work?'

After the initial background reading stage, you will rarely have the luxury of reading for reading's sake. There is simply too much literature out there. You will have to choose what to read and how thoroughly you read it. Your choices will be based on your best guess about what you might use the

information for: usually some written task of your own. So the questions you bring to the text, as illustrated above, can guide your decisions on what to read and in how much depth.

It may seem a bad idea to decide, *before* you read something, what you are going to get out of it. How can you know until you have finished reading? If you start with a particular question, might you be inhibited from seeing what else the material has to offer? The danger is less than it may seem. If you are alert, you will notice other things that are relevant to your task, even if you did not expect to find them there. The single-minded approach will help you to separate out the different kinds of information you are seeking and deal with them at the right time.

Imagine you are reading a paper reporting a questionnaire study because you are seeking hints on how to design your own questionnaire. While reading, you realize that one of the results of the study has a bearing on your research. The fact that you already have a focused question regarding the study design will encourage you to make a note to return to the paper later, when you are specifically working on a data-related question. Doing so will help you avoid distracting yourself from the matter in hand so that you end up achieving neither task properly.

This disciplined strategy means that you sometimes read the same work more than once, for different purposes. It also means that any notes you make on that work will tend to be in different places, under topic headings, rather than in the form of a single, bland and unfocused summary of what the paper says.

Linking critical reading with self-critical writing

One person's writing is another person's reading. Whatever you write as a student will be read critically by your assessors. If you progress to writing for a conference presentation or publication, anonymous reviewers and then the general academic community will also be critical readers of your work. A secret of successful writing is to anticipate the expectations and potential objections of the audience of critical readers for whom you are writing. So you must develop a sense of who your readers are and what they expect. What you learn from this book about the techniques of critical reading in the academic context can be directly applied to making your own academic writing robust for other critical readers like you: intelligent, well-informed and fair-minded, ready to be convinced, but expecting high standards of scholarship and clarity in what they read.

As you work through this book, identifying effective ways of interrogating what you read, you will find that some of the techniques are familiar because

you already use them. Others you will now be able to apply for the first time. If you need certain things in what you read, it makes sense that you should supply them to your target audience in what you write. If you want clarity, then you yourself should be clear. If you need authors to be explicit about their assumptions, then you should be explicit about yours. If you want authors to provide evidence to support their claims, then you should provide evidence for your own.

No two readers want quite the same things, and you will probably never fully anticipate all of the requirements and preferences of your assessors. But you can get a long way towards that goal. How far have you progressed so far in becoming a critical reader and self-critical writer? Try the exercise in Table 1.2.

Table 1.2 Linking a critical approach to your reading with a self-critical approach to writing

How critical a reader and self-critical a writer are you already?

- A Tick each element of critical reading in the list below that you already employ when you read academic literature.
- B Tick each element of self-critical writing that you already employ when you write. (You may find it helpful to look at assessors' comments on your past work, to see what they have praised and criticized).
- C Then add up the number of ticks for each column, and consider your response to our statement at the end of the exercise.

Element of critical reading	Element of self-critical writing
When I read an academic text I:	When I write an academic text I:
[Tick]	[Tick]
1 try to work out what the authors are aiming to achieve;	1 state clearly what I am trying to achieve;
2 try to work out the structure of the argument;	2 create a logical structure for my account, to help me develop my argument and to help the reader to follow it;
3 try to identify the main claims made;	3 clearly state my main claims;
4 adopt a sceptical stance towards the authors' claims, checking that they are supported by appropriate evidence;	4 support my claims with appropriate evidence, so that a critical reader will be convinced;
5 assess the backing for any generalizations made;	5 avoid making sweeping generalizations;
6 check how the authors define their key terms and whether they are consistent in using them;	6 define the key terms employed in my account, and use the terms consistently;
7 consider what underlying values may be guiding the authors and influencing their claims;	7 make explicit the values guiding what I write;
8 keep an open mind, willing to be convinced;	8 assume that my readers can be convinced, provided I can adequately support my claims;

Table 1.2 (Continued)

Element of critical reading	Element of self-critical writing
When I read an academic text I:	When I write an academic text I:
9 look out for instances of irrelevant or distracting material, and for the absence of necessary material;	9 sustain focus throughout my account, avoid irrelevancies and digressions, and include everything that is relevant;
10 identify any literature sources to which the authors refer, that I may need to follow up.	10 ensure that my referencing in the text and the reference list is complete and accurate, so that my readers are in a position to check my sources.
Total number of ticks	Total number of ticks
<p><i>The more ticks you have for both columns, the further you have already progressed in becoming a critical reader and self-critical writer. Look back at any items that you have not ticked. Consider how you might incorporate these elements of critical reading and self-critical writing into your habitual approach to study.</i></p>	

In Table 1.2 we have highlighted the link between elements of critical reading and their counterparts in self-critical writing. Whatever you look for as a critical reader of literature, your assessors may also look for in your writing when judging how far it meets their assessment criteria. The elements of self-critical writing relate to meeting the needs of your readers, so that they can grasp what you are trying to communicate. But just as importantly, they enhance your capacity to make your argument convincing to your readers. This is why developing a strong sense of your audience is to your advantage. Meeting your target readers' needs and convincing them will help to ensure that your account meets the assessment criteria. During your studies, you will find it useful to refer back to this exercise occasionally, to monitor your progress in developing critical reading and self-critical writing skills.

Where now?

Having discussed how to make the most of what you read, the next step is to consider how to select effectively from the vast array of literature available. That is the topic of the next chapter. Then, in Chapter 3, we introduce the basics of critical reading, in the form of five Critical Synopsis Questions that you can ask of a text. Chapters 4 and 5 use these insights to introduce some simple techniques for self-critical writing: presenting your own ideas in a well-supported way. Part One thus prepares you for the more detailed engagement of Parts Two and Three, where we revisit the same approach at a more advanced level.

2

Making a Critical Choice



Keywords

encyclopaedias; handbooks; Internet resources; readers; reading; research literature; textbooks

What you choose to read in preparing for your assessed written work is as important as how critically you read it. Becoming a critical reader must entail becoming a discerning selector of those texts that promise most centrally to suit your study purposes. There is far too much literature out there, especially with the advent of the Internet, for you to read everything that may be relevant. So making effective choices about what to read is the first step in critical reading.

Our chapter begins with techniques for deciding what to read. We then distinguish between different types of literature that you may come across in the course of your studies. Finally, we consider how the Internet offers you a very potent but sometimes unreliable literature source.

Deciding what to read

Suppose it is time to start reading for an essay or a longer piece of work. Where do you begin? You may have been supplied with an indicative reading list and

perhaps some set texts. If so, someone else has made decisions on your behalf to get you started. But there will still come a point when you have to decide what to read. The more principled you can make your choices, the better.

Strategy is paramount. Apart from planning ahead – getting to the library before the crowd for instance – it is useful to operate a two-stage process when identifying what to read. First, draw up a long-list of texts that look important. Then select those which look most central to your reading purpose (discussed below). An advantage of this approach is that you can easily compensate if an item you had targeted is not available. You can work out from your long-list what other text might fulfil the same function. Drawing up the long-list is relatively straightforward. You might consider any of these tactics:

- Use any recommended reading list for your module or subject area, including those from past years.
- Search the Internet for reading lists posted up for similar modules at other universities, and identify texts that are repeatedly recommended.
- Look up one or two important texts in the library catalogue. Then do a search using their subject code to see what else has been classified as covering the same topic.
- Go to the library shelves and see what is physically stored under the same class mark as the key recommended texts.
- Note how many copies the library has of a particular text. If there are plenty, it has evidently been a recommended text at some point.
- As you begin to read, note texts that are often cited by others, and whether positively or negatively (both may be useful).
- Make a list of the three or four journals most often carrying papers that have been recommended or frequently cited, then check the back and current issues of those journals for similar papers.
- Use abstracts databases to search for papers via keywords and author names that you associate with the topic.
- Look through the catalogues (on paper or on-line) of the leading academic publishers to see what has come out recently.
- Check what books have been reviewed in recent academic journals.

In this way, you can soon build up your list of *possible* reading, from which you can choose what you actually read and in how much detail.

Yet you might reasonably ask why you should consider reading anything that has not been specifically recommended to you. A relevant text may not be included on your reading list for various reasons. There may not have been room for all the possible items. Or your topic may be one of several covered in the module, so it has not been given many entries of its own. By keeping the reading list small, the lecturer may be encouraging you to take some

responsibility for seeking out appropriate literature. In short, it is up to you to find out what else might be worth reading and add it to your long-list.

From long-list to short-list

How should you decide which items on your long-list to prioritize? Your reading has to achieve several aims that your selection of texts must take into account. A convincing essay (or dissertation) is likely to cover some or all of the following in relation to the literature:

- An overview of what the key issues in the field are and why they are important.
- An overview of what has been done and found out, and a summary of where the field of enquiry currently stands.
- Some specific examples of the sorts of methodology, results and analysis reported by individual researchers.
- Answers to one or more specific questions that you have been required, or have chosen, to address.

No single text can support all of these agendas. You may need one set of texts to help you develop your overview, another set to help you interpret the work to date within its wider context, yet another to give you specific information about methodology and analysis, and so on. To target your reading, ensure that you short-list a variety of texts that between them will help you achieve each of your goals. But how can you tell what a particular text is most likely to be useful for? One way is by categorizing texts according to their main purpose.

Support literature

Textbooks

Most students turn to textbooks early on in their academic studies. There are two basic types. Firstly, skills textbooks aim to help you learn such things as how to design a robust investigation or analyse data statistically. They are not usually problematic to use, since it is clear that they are a tool rather than a resource. Secondly, subject textbooks generally introduce readers to a field of academic enquiry, and are explicitly designed to support students' learning. Features of textbooks may include:

- They are relatively cheap compared with research books.
- Words like 'introduction', 'guide' or 'study' appear in the title or the series title.
- They are available in softback, and have an eye-catching cover.

- The title evidently encompasses a field or sub-field rather than a particular research agenda (e.g., *A Short History of the English Language*) or else it covers a particular skill (e.g., *Statistics in the Social Sciences*).
- The cover blurb indicates a student target readership.
- There are multiple copies in academic bookshops and libraries. Also, popular textbooks often run to more than one edition.

While textbooks are crucial for any student, they fall outside the central realm of research activity. At postgraduate level you will be expected to have more on your reference list than just textbooks. They can be an excellent place to start, but inherent limitations mean that they are usually *only* a starting place, and should be used only to gain an overview and to identify front-line texts (see below).

One difficulty with using a subject textbook is that it can be so like a literature review that it is difficult for you to find something new to say. The author appears to have summarized all the important works effectively. Conclusions about the big patterns seem to follow logically, and to capture the situation well. You might also feel it is inappropriate to question the judgements of the author, who is obviously more experienced and knowledgeable. It is important to view the textbook author as just one interpreter of the facts. Expect that there will be other ways of interpreting the facts too, and look for those ways, both in other textbooks and by thinking things through for yourself. If you view a textbook as one commentator's account, rather than a summary of some unassailable truth, it becomes possible to pitch one account against another and discuss the reasons for the differences.

GETTING THE MEASURE OF SUPPORT LITERATURE

In the library, try looking up the same concept or topic in the index of several different textbooks, encyclopaedias and handbooks. To what extent do they all report the same information, make the same claims or interpret the evidence in the same way? For some topics and concepts, there is general consensus. For others there is huge variation, based on differences in assumptions, scope and interpretation. Understanding the range of views can help you decide where to position yourself and recognize which of your claims will be most subject to scrutiny by those reading your work.

A second difficulty with a textbook is that it normally tells you *about* research without you seeing the original research report. You should attempt

to read for yourself anything that you judge to be of central importance. You cannot guarantee that textbook authors have interpreted research in the same way that you would do, or have focused on the aspects that are significant for you. The only way you can be sure is to read the original works. Most textbooks provide full references to their sources, and you should aim to follow them up so that you have had sight of everything you discuss. Occasionally you may have to compromise and simply identify a particular work as ‘cited in’ some other work – that is, admitting that you have read *about* it but not actually *read* it. But keep such references to an absolute minimum.

A third limitation of some textbooks is that, in the interests of offering the reader a clear story, authors may make strong claims that are not backed up with sufficient evidence and they may over-simplify complicated issues. This is not necessarily inappropriate, given the introductory nature of a textbook. But it can be a hazard for students, who may fail to appreciate the complexity underlying an apparently simple observation, or fail to realize that opinion is divided on a matter that is presented as fact. Again, the solution is to see the textbook as a signpost to information, rather than a fully reliable source, and to read the original works that it cites wherever possible.

Readers, handbooks and encyclopaedias

Readers are collections of classic papers on a subject. While a few papers may have been written especially for the collection, most will be articles or extracts from books already published elsewhere. The editors will have selected what they consider to be the most important work for students to read. But their selection is personal and other academics may not consider it to be fully representative of key works in the field. If a paper in a reader has been reproduced in full, it is acceptable to reference its appearance there and not to have seen the original. However, it is a good idea to give the original date as well as the date of the reader, so that it is clear when the paper was written.

Handbooks and specialist encyclopaedias are like readers, except that the articles will normally have been specially commissioned. Leading academics will have written an overview of research, theory or methodology in their area. Such articles are immensely useful for gaining an understanding of the state-of-the-art in a field. Remember, however, that even top researchers can give only their own perspective and there are likely to be other perspectives that you should also consider.

TELL-TALE SIGNS OF OVER-RELIANCE ON SUPPORT LITERATURE

Watch out for these signs of over-reliance on support literature in your work:

- Referring to ideas and evidence without referring to the original source.
- Giving references to works without having read them yourself.
- Referring just to works mentioned in the support text.
- Using secondary referencing, e.g. ‘Jones (cited in Smith, 2009) found ...’.
- Plagiarizing by presenting an identical or slightly rewritten version of the support text, as if you had done the reading and thinking.

‘Front-line’ literature

This book deals predominantly with the critical reading of *front-line* publications: theoretical descriptions and explanations, reports of original research, accounts of current practice and policy statements. Such works are the direct link between you and a researcher, practitioner or policy-maker. They report what has been done, how, why, what it means and what should be done next.

Types of front-line literature

A rough-and-ready distinction may be made between four types of front-line literature: theoretical, research, practice and policy. Most texts are easily identifiable as belonging to one type or another – a journal article reporting an empirical investigation is obviously research literature. But any individual text may feature aspects of more than one literature type. Thus, a journal article which is mainly reporting an empirical investigation may also discuss implications for theoretical development. Here is a brief description of each type, showing how all four can be used to impart one or more kinds of knowledge. (In Part Two, we explore types of literature and kinds of knowledge in more detail.)

Theoretical literature models the way things are (or should be), by using evidence to identify patterns. The evidence may include experiments, observations, experience or ideas, and may not be work that the theorizers have conducted themselves. The patterns, once formalized into a model, may enable researchers to make predictions about what will happen in future scenarios. Such predictions are called *hypotheses* (Figure 2.1).

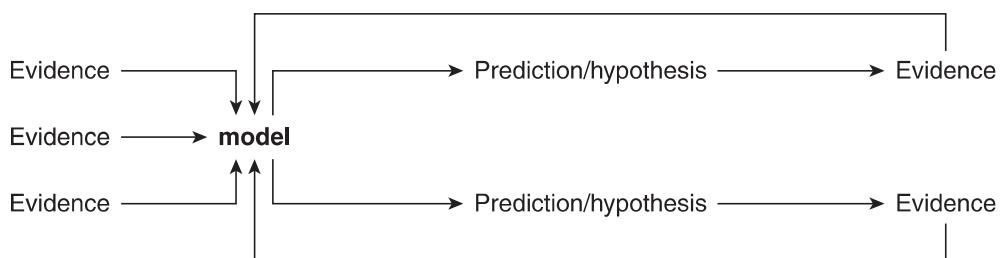


Figure 2.1 How theory and evidence interact through modelling

A model can help readers to deepen their understanding of the social world and to anticipate what things might be observed in the future, and under what circumstances. Theoretical literature can also be used to present the case for a viewpoint or to recommend changes. They might be at an international, national, institutional or personal level and, accordingly, readers may be more or less able to respond directly to them. Consider a journal article putting forward a predictive model about the consumption of the earth's natural resources. The model predicts that, at current rates of consumption, some resources will be used up within fifty years. In itself, such an account is merely a statement of what the facts appear to be. However, it could be used to criticize national or international policy, to underpin recommendations for change, to influence the way people are educated, or to encourage individuals to take greater responsibility for their personal use of resources.

Research, or data-driven, literature reports observations about the real world, often relating them to a prediction or hypothesis derived from a model. Data take two main forms, observational and experimental, though there is some overlap. The major difference relates to whether or not the researcher manipulates the situation. In a classic experimental design, a comparison might be made between two groups or situations that are identical except in one regard determined by the experimenter. Any difference in the outcomes is assumed to be due to that one contrast. In a classic observational design, the researcher might gather data that will indicate how a particular individual or group operates, but without intervening. Between the two lies a range of options, including:

- Observing two contrasting groups or situations that occur naturally (a natural experiment).
- Observation in which the researcher participates in the observed activity or situation (participant observation).
- Detailed observation of one or more individuals or groups with the same, or contrasting, profiles (case studies).

As with theoretical literature, data-driven research may augment a general understanding about how phenomena operate. It can also be used to help explain where things are going wrong, to demonstrate a method that seems to work well (or better than some other method), to try and convince trainers or policy-makers to effect changes in present methods, or to enable individual readers to gain fresh insights into their own behaviour or practice.

Practice literature comprises accounts of how things are done, and will often be written by experienced practitioners who feel that others might benefit from an understanding of how they operate. This type of literature features most strongly in applied fields of enquiry focusing on a domain of practical activity in the social world, such as nursing. An account might, for instance, offer a personal illustration of how a nurse working for a relief agency has learned to cope with the extreme demands of over-crowded refugee camps. But the account might also be used for identifying shortcomings in existing systems, recommending practices that have been found to be effective, training others who will soon encounter similar situations or, at the personal level, influencing readers to reflect on similarities between their own situation and the one reported.

Policy literature (also featuring most strongly in applied fields) emphasizes change to improve practice, according to particular values. This type of literature is mostly produced by policy-makers, those working for them or others whose primary agenda is to influence policy-makers. For example, government ministers might publish a report drawing attention to shortcomings in present practice, proposing an alternative policy that will lead to more desirable outcomes, and outlining how it is to be implemented. A pressure group whose members do not share ministers' values might publish their own report, criticizing the government proposals and setting out their preferred alternative.

Being discerning about front-line literature

To a novice researcher, all published front-line research may look impressive. In due course, with your critical reading skills developed, you will be well-equipped to evaluate the claims made. But in the short term, it is worth having a sense of some general patterns that can affect the quality of the front-line texts you consider reading.

The single most important thing to remember is that learning to do good research does not end with the completion of a dissertation. There are many more skills to acquire, ideas to understand and assumptions to challenge. The best researchers will tell you that the learning never really stops. This means that research done at any stage of a career may be pushing at the boundaries of the researcher's knowledge or abilities, and could display weaknesses as a result.

A second thing to keep in mind is that research writing goes through varying amounts of revision before it is published. Papers in the top international refereed journals should be fairly reliable in terms of what they claim, because getting them published is so difficult. Papers from these journals are sent for review and will typically be accepted for publication only after substantial revisions. Therefore, it is helpful to note where a paper has been published. A paper in a less prestigious journal will not necessarily be less good, but it may not have been through such a stringent quality check.

Authors apply their own quality checks too, and a good sign can be when there are acknowledgements in the paper to the helpful comments of colleagues. This usually means the author sent the draft paper to others who have helped improve it. Similarly, multiple authorship usually means that the co-authors have all contributed to maximizing the quality of the paper. Co-authors also discuss the basic ideas and findings of their research, so that the claims made may reflect the combined knowledge of several people.

The quality of books also varies. Some edited collections are the result of selection – as when a few papers from a conference are published. Others may be the outcome of the editor's invitations to particular authors, with minimal quality checks of their texts. The quality of research monographs (books written by a single author or team, without authors' names on the individual chapters) rests largely on the expertise of the author. Most publishers send out monograph *proposals* for academic review, but not all have the final manuscript reviewed. Those that do may require responses to the reviewers' comments before they will accept the manuscript. Books that have undergone this process are likely to be more reliable for the reader.

You are likely to be drawn to the work of 'big names'. But when a famous researcher is just one of several co-authors, how much of the book or article is actually theirs? The order of co-authors' names is a rough guide to the relative contribution of each, though contributions can be of different types and hard to quantify in the social sciences. You can generally assume that the first named author has contributed data or key ideas. If two co-authors have truly contributed equally, albeit in different ways, their next publication will probably swap the order of names round. With books, the first named co-author probably conceptualized the monograph and did most of the writing.

Using the Internet

Opportunities and dangers

Much support and front-line literature is available in both electronic format and hard copy. If you have Internet access, you will also be able to use powerful

search engines directing you to myriad websites and downloadable files. However, care must be taken in using the Internet. On the one hand, it is a huge resource offering enormous opportunities to gather information but, on the other, it carries certain dangers.

There are two major potential pitfalls that you need to know how to avoid. One is using Internet resources as a convenient replacement for the harder work of constructing your own text. Copying and pasting material from the Internet into your own work is regarded as cheating, or *plagiarism*, and usually carries very heavy penalties. Resist any temptation to take this short cut! Your assessors are very likely to spot what you have done and, more fundamentally, you will not learn as much as you would by doing the work yourself. What is the point of postgraduate study if you do not attempt to maximize your learning? Plagiarism is a serious problem in higher education. We recommend that you inform yourself fully about plagiarizing and scrupulously avoid it.

The question of *unreliability* is the other risk-laden aspect of Internet usage and is directly relevant to our key concern with critical reading. However critically you aim to read, it makes sense to favour texts that you have reasonable confidence in. The support literature and front-line publications discussed earlier have been written by people with a commitment to truth and accuracy. In addition, all such texts have undergone some level of scrutiny by others to ensure that they live up to that commitment. The Internet, on the other hand, is a huge, amoral, uncoordinated dissemination forum. On the one hand, it includes some of the support literature and front-line publications whose reliability is ensured by the means we have just described. On the other hand, there are no safeguards to ensure the quality of everything else that can be posted on websites. As a result, the content of the Internet overall, and its reliability, is very variable.

Given the potential benefits, we strongly advocate using the Internet if it is available. But you need to be critical in sorting the good material from the bad. Since this is not always easy, you need techniques for ensuring that your use of the Internet only enhances, and never diminishes, the quality of your academic work. These techniques include applying all the standards of critical reading that we describe, and not assuming that the confidence with which something is said is a reliable guide to how true it is.

When you are learning about a new topic, it is often difficult to evaluate the quality of an argument or of evidence. You may feel uncertain whether a claim you find on the Internet is reliable. A technique for avoiding this difficulty is to think of the Internet not as a repository of knowledge but as a catalogue. When you find something on the Internet, try to avoid making that the end point of your search. Use the information you have gathered to locate another kind of material in which you can have more confidence.

For instance, you might find on a web page the following claim: 'Metaphors are central to how we navigate the world (Lakoff and Johnson)'. Rather than accepting this claim without any further investigation, it would be much safer to check out who Lakoff and Johnson are, and to see if they have written an academic paper or book making the claim. (Indeed they have: Lakoff, G. and Johnson, M. (1980) *Metaphors We Live By*. Chicago: University of Chicago Press.) If so, obtain the text from the library and use that as your resource. In this instance, then, the Internet has been a springboard, much as your supervisor might be when advising you to read a particular text.

The dangers of over-reliance and unreliability can be well-illustrated in relation to one very valuable resource that should be used with care: Wikipedia, www.wikipedia.org. Whether Wikipedia is sufficiently reliable as a source of information, since anyone can contribute to it, has been much discussed. See http://en.wikipedia.org/wiki/Reliability_of_Wikipedia for Wikipedia's own article on this topic. It cites empirical studies and also indicates which aspects of its coverage are least likely to be reliable. This article indicates that perceptions of reliability are dependent on beliefs about the nature of 'correct information', and that it is always wiser to find an additional independent source of evidence for a claim, rather than accepting just one. Using Wikipedia as a springboard means finding out what is claimed about a topic there, and then following up the ideas using the reference list, names and keywords. It is never appropriate to copy text from Wikipedia directly into your own essay.

Internet resources for research

More resources are continually becoming available on the Internet, and you will probably be familiar with using general search engines such as Google. If you are trying to track down a copy of a published paper or conference presentation, simply typing in the title, inside inverted commas, will often lead you to an electronic version. However, researching a whole topic using a search engine, in the hope of finding relevant and reliable publications, is more hit-and-miss. Searches are usually prioritized on a commercial rather than knowledge basis. General searches may lead you to materials that are less trustworthy than the academic sources you need, so it is useful to employ more specifically academic searching methods. These include a range of major publication databases such as Web of Science, to which your university should hold a subscription. You should be able to obtain instructions from your library.

In addition, a highly significant recent change is the digitization of texts, images and other materials for open access to scholars worldwide. Many

international research libraries have offered their resources for digitization, making available thousands of items that previously had to be viewed by travelling to that institution. A primary interest of libraries has been to offer materials that are rare and out of copyright. Such materials may be of more relevance for your original research than for the literature reviewing aspect of your work. However, libraries also hold many items that are more recent and that constitute part of the research literature. Usually they are still in copyright, so legal questions have arisen (yet to be fully resolved) over making these items available electronically to all. Currently, the copyright issue is resolved by displaying only sample pages from the work. Yet this can often be enough for scholars to establish whether an item is of primary importance to their research. Digitized works are searchable, and those sources collecting items from many different sites will tell you where you can find hard copies.

Major open access e-resources relevant to researchers include:

- Google Library project (<http://books.google.com/googlebooks/library.html>) is the largest such project, and contains digital versions of works from many university and national libraries. The searching facility for Google Library is Google Books, at <http://books.google.com>
- Google Scholar (<http://scholar.google.com>) provides powerful searching of a huge number of academic journals, though often only the abstract can be read, because access is restricted to individuals and institutions with a subscription to the journal. Good university libraries usually subscribe to huge bundles of journals. So once you have identified the paper you want, it's worth checking if your university has access to it. If you can't access it that way, try a general Google search on the title to see if there is a copy elsewhere on the Internet (often on the author's web page). Some authors will send a copy if you email them with your request.
- Internet Archive (<http://www.archive.org>) includes texts, audio, moving images, software and archive web pages from the Library of Congress and the Smithsonian, amongst others.
- Europeana (<http://europeana.eu>) offers access to millions of digital images, texts, sounds and videos from European museums, galleries, libraries and archives.
- Gallica (<http://gallica.bnf.fr/>), the digital library of the Bibliothèque Nationale Française, provides access to items from its own collection, including texts, images, musical scores, maps, manuscripts and audio material.

The texts you can access through these resources are as reliable as the hard copy equivalent you would find in the source library. All the requirements for critical reading described in this book in relation to books and journal articles apply also to electronically accessed texts.

INTERNET MATERIAL – THE GOOD, THE BAD AND THE UGLY

Likely to be very reliable:

- 1 Peer-reviewed journal articles that are also published in an academic journal. These should be referenced according to their paper details, rather than as an Internet resource.
- 2 Peer-reviewed journal articles published in genuine electronic journals. These should be referenced using their volume number and date, plus the full web address. It is possible that they will not have page numbers.
- 3 Already published journal articles and book chapters that have been posted, usually in PDF format, on an academic's home page. Check, however, that it is the published version. If it says 'submitted to' a journal, or 'draft', it has yet to be peer-reviewed. You could then check if it has since been published.
- 4 Electronically readable books written by subject experts.
- 5 Official materials published on a recognized institutional website, e.g., the British Museum site, or the Institute of Linguists' site. You can find out what site you are on by going to the home page.

Likely to be fairly reliable:

- 1 Pre-peer-reviewed material, as described in (3) above – but track down the published version if possible.
- 2 Lecture or research notes on the site of an academic working at a recognized institution.

Likely to be unreliable:

- 1 Material on the home pages of individuals.
- 2 Material on organization websites that is written by enthusiasts rather than experts.
- 3 Free-for-all post-your-views sites (unless restricted to a recognized set of academic contributors).
- 4 Web-logs (blogs), chatroom pontifications, etc.

REFERENCING INTERNET SOURCES: GOLDEN RULES

Internet sources are subject to two common problems. First, it may be unclear who wrote the material (and so what their credentials are for writing reliably). Second, web pages may disappear or move location, making them difficult to find in future. Therefore, it is always advisable to try tracking down a more permanent reference (to a book or journal article, for instance). Where you do have to reference an Internet source:

(Continued)

(Continued)

- 1 Attribute the material to a person if possible, not just a web address. Giving the web address alone is like referencing a book by describing where you found it in the library.
- 2 If (and only if) no author is named, give the institutional details instead. If you can't find an author or an institution, do you really want to trust this material?
- 3 Give the date when it was posted or last updated, if available, otherwise the year in which you saw it.
- 4 Indicate the date on which you last accessed it.
- 5 Check that the URL you have given will indeed take someone to the exact material you are citing.

An example of how to reference an Internet source:

In the text:

... there is no single satisfactory definition of formulaic language (Wray, 2010) ...

In the reference list:

Wray, A. (2010) 'What is formulaic language?', www.cardiff.ac.uk/encap/research/networks/flarn/whatis/index.html (accessed 5 January 2010).

Academic authors who aim to convince a critical reader that their work is robust will *only* reference Internet sources where:

- The material is robust and reliable.
- There is no equivalent published paper version.
- The Internet resource has been the legitimate end of the line, not the means to finding a published paper resource.

Varying your reading strategy

Three useful reading strategies are:

- Scanning – looking through a text to find specific sections or key words and phrases indicating where the information you are seeking is located.
- Skimming – reading quickly through those parts of a text that can give you an overview of the content.
- Intensive reading – carefully reading every word of a text from beginning to end.

Some students feel nervous about employing the full range of reading strategies. They fear that while scanning and skimming could save time, so more

material is covered, vital information or subtle messages could be missed. So they play safe, reading everything intensively. Other students go too far in the opposite direction, failing to read any texts intensively or reflect adequately on what they read, leading to an overly descriptive written account. Or worse, they engage critically without having checked the detail or considered the implications of the claims. Such students may make sweeping statements and generalizations based on inaccurate reading.

Efficient and effective reading involves compromise between reading deeply and broadly, engaging fully with only those texts most central for your reading purpose. Skimming and scanning help you to find out which these are, enabling you to reduce the risk of missing what matters. Thus you have the best possible chance of learning what you need to learn – without also wasting time on things you don't need to know.

What next?

Once you have identified a text as important, how are you to read it not just intensively, but also critically? That is the focus of the next chapter.

3

Getting Started on Critical Reading



Keywords

arguments; claims; conclusions; critical reading; Critical Synopsis; Critical Synopsis exercise; warranting

Critical reading as part of academic study is a very active process. You cannot avoid being affected by your own expectations, prejudices and previous knowledge, which will shape your understanding of the literature you read.

It is vital to realize that authors also have prejudices, assumptions and beliefs. These too will tend to influence your understanding of a text. Therefore, a key critical reading skill is that of identifying authors' underlying aims and agendas, so that you can take them into account in your evaluation of the text in hand. Occasionally you will have to think carefully and 'read between the lines' to establish authors' values and aims. More often the authors will not be hiding anything, whether deliberately or accidentally, and you will easily be able to establish their purpose, provided you realize the importance of doing so.

We have already noted that critical reading for postgraduate study is task-driven: usually the task culminates in a written product for assessment. In the previous chapter, we discussed the first step in taking charge of your

response to a task: making your own critical choice about what you read. Once you have done that, your second step is to make the texts work for you. Far from having to absorb slavishly everything the authors have written, you can *focus* your reading by asking questions of a text and looking for answers that will help you to achieve your goals.

In this chapter, we first consider how asking carefully formulated questions can help you to focus on what you are looking for in a text, even before you start reading it. Next we explore how you might evaluate what you have read – by identifying authors' arguments and judging the adequacy of the backing they offer for their claims. Finally, we bring together the skills of focusing and evaluating, by offering a simple way to structure the questions you ask of any text. (This approach paves the way for a more detailed analysis of texts in Part Two.)

Focusing through a central question and review questions

In Chapter 1, we saw that asking questions as you study a text enables you to focus your reading effort. For literature-related tasks that draw on multiple texts, you can gain additional focus by formulating a broad *central question*. It will underlie the entire piece of work or a substantial thematic section. A central question is expressed in general terms. It is a question about something in the social world that will almost certainly need to be answered by asking more specific questions. An essay title is often framed as a central question (e.g., ‘Does perceived social status affect how pharmacists address their customers?’). An essay title that is not framed as a question (e.g., ‘Discuss the impact of perceived social status on the ways in which pharmacists address their customers’) can usually be reframed as a question. Doing so is a very effective tactic for finding and keeping focus in your work.

A *review question* is a more specific question that you ask of the literature. Review questions that are derived from a broader central question will ask something that directly contributes to answering the central question (e.g., ‘What does research suggest are key factors determining how pharmacists would be likely to address their customers?’). However, review questions can also help with theoretical questions (e.g., ‘Whose model can I use to investigate style shift in speakers?’). Similarly, review questions may arise in justifying the methodology of your own developing research for, say, a dissertation (e.g., ‘What can I learn from published studies about how to observe interaction in shops?’). The review question, or questions, you ask of the literature will therefore vary according to your purposes and the type of literature you deem any text to be.

Evaluating the usefulness of what you read

Working on the assumption that not all texts will prove equally useful, how can you establish the merits of what you read for achieving your purpose? Obviously, you want to take most notice of the works that contribute something directly relevant to your task, and that you feel are reliable and plausible. Not all opinions are worth taking seriously and extreme views might need to be treated with caution.

To determine how reliable the material in a text is, you need to identify and evaluate its *arguments*. An argument consists of a *conclusion* (comprising one or more claims that something is, or should be, the case) and its *warranting* (the justification for why the claim or claims in the conclusion should be accepted). The warranting is likely to be based on evidence from the author's research or professional experience, or else it will draw on others' evidence, as reported in the literature. A robust conclusion, then, is one that is sufficiently warranted by appropriate evidence. Only with such evidence should you be convinced of a conclusion's validity.

OPINION = UNWARRANTED CONCLUSION

ARGUMENT = CONCLUSION + WARRANTING

The *conclusion* is only half of an argument. You can legitimately ask of any set of claims: 'Why should I believe this?' The other half of the argument is the *warranting*. The warranting is the reason for accepting the conclusion, including evidence for it. Demand a convincing warranting for every conclusion that you read about. Also, demand of yourself that every conclusion you draw is adequately warranted.

This conception of 'argument' is very simple, but is effective for our current purpose. In philosophy and rhetoric, 'argument' is more precisely defined, with more components to what makes for a good argument. You can see how a more sophisticated approach to argument structure relates to critical reading by looking at the relevant chapters in Booth, W.C., Colomb, G.C. and Williams, J.M. (2008) *The Craft of Research* (3rd edn). Chicago: University of Chicago Press. The 'argument' definition can be applied to single sentences, paragraphs, chapters, even entire dissertations or books. It can be used to identify and evaluate what is said in the texts you read, and also to ensure your own scholarly writing is well constructed.

It is the authors' job to provide you with the best available warranting for their conclusion. Your job is to judge whether the warranting is enough to make the conclusion convincing, and so whether to accept or reject that conclusion.

EXAMPLE OF ARGUMENT CONSTRUCTION

The following passage comes from a report of research into the quality and extent of training experienced by researchers employed on academic projects.

For example, one practitioner researcher commented that 'I think that my TLRP [Teaching and Learning Research Programme] experience was very, very positive. It caused me to reflect back on where I was and to accept that I am really happy in FE [further education], that I don't want to be a lecturer in HE [higher education].' Building research capacity is not just about building the next cohort of professors and senior academics, it can also relate to the building of one's own personal capacity to engage with research and practice.

Source: Fowler, Z., Proctor, R. and Stevens, M. (2008) 'Mapping the ripples: an evaluation of TLRP's research capacity building strategy', *Teaching and Learning Research Briefing no. 62*. London: Teaching and Learning Research Programme. www.tlrp.org/pub/documents/fowlerRB62final.pdf

This passage constitutes one of many arguments in the report. The *claim* is in the final sentence: there is more to building research capacity than just making everyone a top expert; it is also about helping individuals to gauge their own potential and ambitions. The *warranting* is the quote in the first sentence, where a researcher reveals that the research experience resulted in a recognition of what sort of future work would be most comfortable for them. Quoting from a respondent is one kind of evidence that can be used in warranting. Since this study entailed on-line surveys with researchers and their project managers, quoting in this way is an appropriate form of evidence.

What makes an argument convincing

In the example from Fowler and colleagues in the box, note how the claim is based on one quote from one respondent. Part of the job of the critical reader is to evaluate whether the warranting provided for a claim is sufficient to warrant that claim. The reader might feel that a single voice does not carry much weight and so look for other, supporting evidence, such as a statistic:

38% of the respondents felt that their experience as researchers had helped them decide what sort of future career they did and did not want. However, the reader might equally decide that the point of the claim is not that it is necessarily a majority view, but that it exists at all. In such a case, the reader might be satisfied that even if this view is restricted to one person, it is sufficient for warranting the claim. Such decisions cannot be taken in the abstract. They will take into account the nature and purpose of the study and also the reader's other knowledge and experience, and interests in reading the text.

To explore further the quality of an argument, let us return to our example from Chapter 1. Here is the (fictional) extract from Browning again:

In the reading test, the five children who were taught to read using phonics performed better overall than the five children taught using the whole word method. This shows that the phonics method is a better choice for schools.

The conclusion is a single claim: 'the phonics method is a better choice for schools'. Browning offers research evidence as the warranting for his conclusion: 'the five children who were taught to read using phonics performed better overall than the five children taught using the whole word method'. But we saw that Browning's claim was vulnerable, at least as depicted in the extract. It was unclear how he could justify his claim that the phonics method was best for any school on the basis of this small amount of evidence. What Browning's claim illustrates is the drawing of a conclusion without *sufficient* warranting. Here is the example reader's commentary from Chapter 1:

Browning (2005) found that children taught to read using phonics did better in a reading test than children taught using the whole word method. However, the study was small, the test rather limited, and the subjects were not tightly matched either for age or gender. An examination of Browning's test scores reveals that, although the mean score of the phonics group was higher, two of the highest scorers in the test were whole word learners. Since this indicates that the whole word method is effective for some learners at least, Browning is perhaps too quick to propose that 'the phonics method is a better choice for schools' (p. 89).

The commentator evaluates the claim by critically assessing whether Browning's warranting is strong enough to make his conclusion convincing. First, the limitations of the empirical investigation are noted: 'the study was small, the test rather limited, and the subjects were not tightly matched either for age or gender'. Second, a notable degree of overlap is highlighted between the range of findings for the two groups of subjects, something that was evidently reported by Browning but was ignored by him in warranting his conclusion: 'An examination of Browning's test scores reveals that, although

the mean score of the phonics group was higher, two of the highest scorers in the test were whole word learners'.

Note that these two evaluatory comments comprise the *commentator's own evaluatory warranting*. The commentator's evaluatory warranting is used to back the commentator's own conclusion that: 'Since this indicates that the whole word method is effective for some learners at least, Browning is perhaps too quick to propose that "the phonics method is a better choice for schools"'. The commentator is implying that Browning's warranting is insufficiently robust to make his sweeping conclusion convincing.

Importantly, in your role as commentator, you should be cautious about how you make counter-claims – you, yourself, must have sufficient warranting to support them. It would be unfortunate to write: 'Browning is unable adequately to justify his conclusion that "phonics is the best choice for schools", therefore, we can conclude that phonics is *not* the best choice for schools'. It is rather easy to criticize the shortcomings of others' conclusions, and then to draw similarly flawed conclusions oneself!

This potential for a commentator to draw insufficiently warranted conclusions impacts on your reading. Thus far, you will have identified yourself with the commentator in this example. However, suppose that you, as a critical reader, are reading this commentary on Browning's work as one of your texts. You need not accept at face value the conclusions that the commentator draws. Has the commentator supplied sufficient warranting to justify the conclusion that Browning's claim should be rejected? In order to decide, you might choose to go and read Browning's work for yourself and see whether you feel that the commentator has been fair.

Tracking down and reading the original work is of great importance for evaluating the arguments in a text that reports this work second-hand. Retelling a story tends to simplify it and second- or third-hand accounts can end up appearing much more definitive than the original. Thus, even though Browning offers too little warranting for his conclusion about phonics being the best choice for any school, this does not necessarily mean that phonics is the worst choice, or that the whole word method is the best choice. A range of possibilities opens up regarding alternative claims. One is that Browning is right, but just has not been able to provide satisfactory evidence from his own study. Another is that Browning has failed to see certain patterns, or to relate his findings to others that might have supported his conclusions. Our commentator has not chosen to provide the kind of information that you would need in order to see what options there are. So only by reading the original study for yourself, rather than relying on an intermediary, could you ensure that you were fully informed in making your own evaluation.

CONVINCING ARGUMENT	= CONCLUSION (containing claims)	+ ADEQUATE WARRANTING (based on sufficient appropriate evidence)
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For an *argument* to be convincing, the claims in the *conclusion* need *adequate warranting*. Warranting is adequate when you, as the reader, are satisfied that there is *sufficient* evidence, and that it is *appropriate* evidence. It is important to realize that people may differ in their views about what counts as adequate evidence. This is because the strength of the warranting depends only indirectly on the evidence itself. The relationship is mediated by our *interpretation*. The reason why critical readers in the social sciences might question the adequacy of the warranting of claims forming the conclusion of a research paper is usually because they differ with the author in their judgement about the amount and quality of evidence necessary for warranting the acceptance of that conclusion.

Identifying the conclusion and warranting of arguments

Academic discourse offers us several ways of relating ideas to each other, and there is more than one formulation that can connect a conclusion and its warranting. Key indicators are words or phrases, such as: *therefore*, *because*, *since*, *so*, *it follows that*, *it can be concluded that*. Note how the following formulations all say essentially the same thing:

- Since research shows that girls mature faster than boys, studies should take age and gender into account when exploring child development.
- Child development studies should take age and gender into account because research shows that girls mature faster than boys.
- Research shows that girls mature faster than boys. *Therefore*, studies of child development should take age and gender into account.

Other variations may weight the warranting, implying that it is reliable in its own terms but not necessarily universally true:

- *In so far as* girls are believed to mature faster than boys, studies of child development should take age and gender into account.
- *In conditions where* girls mature faster than boys, studies of child development should take age and gender into account.
- *Where it is relevant to the investigation that* girls mature faster than boys, studies should take age and gender into account.

Incomplete or flawed arguments

In your reading (and your own writing) look out for incomplete arguments. Table 3.1 shows some common flaws and the ways in which you can ask questions to identify where the problem lies.

Table 3.1 Identifying flaws in arguments

Type of flaw in an argument	Example (at the level of a few sentences)	Critical questions as a reader, suggesting there may be a flaw	Example resolution
Conclusion without warranting	The best musicians make the worst teachers.	Why do you think that? How do you know?	The eye for fine detail possessed by the best musicians tends to make them over-critical and discouraging with pupils (Goodman, 2009).
Potential warranting without a conclusion	Johnson's research shows that people often sign legal agreements without reading them. Legal documents can be difficult to read.	So what? What do these different pieces of evidence, together, imply?	People may fail to read legal documents because they are too difficult.
Warranting leading to an illogical conclusion	People in English-speaking countries tend not to know another language. This indicates that they are poor language learners.	Does this reasoning add up? Aren't there other more plausible conclusions?	This may suggest that English speakers do not see the need to know other languages.
Conclusion not explicitly linked to warranting	Statistics show that teenagers are drinking far too much to be good for their health. Alcoholic drinks should be increased in price.	What causal relationship between the factors are you meaning to suggest?	Since teenagers have only limited money, raising the price of alcohol might result in their drinking less.
Conclusion with inadequate warranting	Trainee managers learn more effectively when they are praised than when their efforts are criticized. In a survey of female trainee managers in a retail company, 77% said they liked to be praised.	Is the evidence adequate to justify the extent of the claim? Is the evidence appropriately interpreted?	However, males and females may respond differently to praise. Further, there is no evidence of a link between 'liking to be praised' and learning more effectively.

As these illustrations suggest, when you adopt the role of critical reader you are, in a sense, interrogating the author, to answer the questions that your reading has raised in your mind.

THINKING YOUR WAY INTO THE MIND OF THE AUTHOR

How can you focus on *your* questions when the author's agenda may be different? Imagine that you have the opportunity to talk to the author face-to-face. What questions would you ask to pursue your own agenda? Use the author's text to try and work out how the author would answer your questions.

Five Critical Synopsis Questions

The five questions introduced below map onto the more detailed approach to critical reading to be explored in Part Two. As will become clearer then, the extent to which you apply the in-depth level of engagement will vary, depending on how central a given text is to what you are trying to achieve. In many cases, the five basic Critical Synopsis Questions are all you will need and, even where you undertake a more detailed analysis, they may well have been your starting point:

- A Why am I reading this?
- B What are the authors trying to do in writing this?
- C What are the authors saying that is relevant to what I want to find out?
- D How convincing is what the authors are saying?
- E In conclusion, what use can I make of this?

Critical Synopsis Question A: Why am I reading this?

In Chapter 2, we reviewed some of the most likely answers to this question. In the early stages of your study of a new area, you may be reading something because you were advised to or because you want to gather some background information. However, the more you work in an area, the more you will be choosing what to read with attention to your own agenda in relation to your study task. This is where a review question, as discussed above, could valuably come in. It would offer you a focusing device that ensures you take charge of your critical reading and are not distracted into following the authors' agenda at the expense of your own.

Critical Synopsis Question B: What are the authors trying to do in writing this?

If you are to assess the value of authors' findings or ideas for your own interests and priorities, you need to have a clear understanding of what the authors were trying to do. It should be fairly clear what their purpose is, often from the abstract or introduction and, failing that, the conclusion. These are the places where authors tend to make most effort to convey to the reader why their piece of work should be taken seriously. Authors may be trying to do any of the following:

- Report the findings of their own research.
- Review others' work.
- Develop theory.
- Express particular values or opinions.
- Criticize what is currently done.
- Advise on what should be done in the future.

It is also useful to consider who their target readers might be. The primary readership for academic journal articles and research monographs is academics. Sometimes the student will feel rather like an onlooker as an academic debate rages. Edited books vary in their target readership, according to what they cover. Some offer an up-to-date overview of a field. Others are based on conference presentations and can be so eclectic as to be quite misleading to the student entering the field for the first time. Besides the level of knowledge, the target readership is also defined by the *scope* of knowledge. Students from a non-psychology background will find a book written for psychologists difficult to understand because it will assume a breadth of knowledge they don't have.

Critical Synopsis Question C: What are the authors saying that is relevant to what I want to find out?

This simple question covers several aspects of any text that may be important to you:

- What the text is actually *about* – what it reports, how any empirical work was carried out, what was discovered and what the authors conclude about it.

- Where any overlap lies between the authors' concerns and your own interests – the authors are unlikely to have been asking exactly the same questions as you are.

Critical Synopsis Question D: How convincing is what the authors are saying?

We have already touched on this crucial question for the critical reader. It invites you to evaluate the quality of the authors' data and arguments, particularly with regard to the strength and relevance of the warranting for claims that are made. Other things that you might keep an eye on are any underlying assumptions made by the authors that you do not share, and whether the claims are consistent with other things that you have read or that you know about from your own research or professional experience.

Critical Synopsis Question E: In conclusion, what use can I make of this?

For the purposes of fulfilling your study task, does this text count amongst the many that you will refer to quite briefly, or the few that you will want to discuss in depth? Are you minded to write about this work positively or negatively, and would you want to imply that, overall, you agree or disagree with the claims the authors make? If your reading is guided by a review question, how (if at all) does the text contribute to answering it?

A Critical Synopsis of a text

The sequence of five Critical Synopsis Questions provides a structure for ordering your critical thoughts in response to any text you read. Writing down your answer to each Critical Synopsis Question will help you firm up your responses, especially when you are at an early stage of learning to become a more critical reader. Critical Synopsis Question A can be written before you start reading, Critical Synopsis Questions B, C and D as you go along and E once you have finished reading. Taken together, your answers comprise your Critical Synopsis of the text, available for you to refer to when moving from preparatory reading to writing your account for assessment.

The blank form for a Critical Synopsis of a text can be photocopied. Alternatively, you may wish to download the Critical Synopsis template from the SAGE website (www.sagepub.co.uk/wallaceandwray). The template enables you to write as much as you like in answering each Critical Synopsis Question. We recommend that you fill in a copy for each text that you read. If you attach a copy of the completed Critical Synopsis form to the original text, you can quickly remind yourself of the key points. The accumulated set of completed forms will provide you with a summary of what you have read and how it relates to your developing interests. The evaluative code at the end of the form is useful for sorting the forms later – a rapid means of generating a short-list of texts that you want to return to for a more in-depth consideration.

Trying out a Critical Synopsis of a text

We invite you now to familiarize yourself with this structured approach to developing a Critical Synopsis by completing one for yourself. The text for you to read is in Appendix 1. It is an abridged version of a paper by Wray and Staczek (2005), exploring possible reasons why a mismatch in two people's knowledge of a dialect expression led to an expensive court case. In order for you to focus your reading, and to complete Critical Synopsis Question A, let us imagine that you have been given the task of writing an essay entitled: 'Discuss the ways in which language can be the focus of a court dispute'. Following our earlier advice, you have turned the essay title into a review question to help you focus your reading: 'In what ways can language be the focus of a court dispute?' You have made the critical choice to read the paper by Wray and Staczek because it looks like a piece of research literature about a court dispute where language is the focus. Turn now to Appendix 1 and, as you read, complete the blank Critical Synopsis form on page 51.

When you have finished, reflect on how well you have got to know the paper as a result of having to answer the Critical Synopsis Questions. The more Critical Synopses of texts that you complete, the more naturally you will ask these questions. As critical reading in this way becomes automatic, you will eventually find that you no longer need the prop of the Critical Synopsis form. But since this is your first Critical Synopsis, you may not yet feel sure how to answer each Critical Synopsis Question. So, for comparison, you may wish to look at our answers when we completed the Critical Synopsis form for this paper.

FORM FOR A CRITICAL SYNOPSIS OF A TEXT

Author, date, title, publication details, library code (or location of copy in my filing system):

A Why am I reading this?

B What are the authors trying to do in writing this?

C What are the authors saying that is relevant to what I want to find out?

D How convincing is what the authors are saying?

E In conclusion, what use can I make of this?

Code:

(1) = Return to this for detailed analysis; (2) = An important general text;
(3) = Of minor importance; (4) = Not relevant.