

History of Political Thought as a Social Science

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Comments and criticisms welcome.

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Abstract: Textual interpretation is a science, insofar as interpreters make factual claims about authors' beliefs, such as motives and intended meanings. I argue that historians of political thought can benefit from key social science ideas, including uncertainty, underdetermination, falsification, selection bias, and triangulation; many textual interpreters already practise such principles without realising it. This paper makes two arguments for a science of interpretation: a theoretical case, based on the similarities between science and textual interpretation; and a practical case, based on the concrete lessons that we can learn from science. Such 'how-to' advice – aimed here at graduate students – is this paper's key contribution.

9,400 words plus references

1. Introduction

All political theorists interpret texts. Some do so as an end in itself, some do so as a means to other ends, like normative analysis. My examples mostly involve historical texts, but the same ideas apply to contemporary texts.

This chapter argues for a science of interpretation. My justification has two parts: theoretical and practical. Theoretically, there are many similarities between textual interpretation and science. Practically, science has much concrete guidance for textual interpreters. You can accept these practical lessons while rejecting my theoretical position.

These practical principles are my key contributions – ‘how-to’ advice on textual interpretation. Most previous methodological discussion has been more abstract (Gunnell 1987, 24, 102, 119). For example, Quentin Skinner is the most influential methodologist in this area (see especially Skinner 2002a) and the best-known adherent of ‘contextualist’ interpretation (e.g. Skinner 1996). But if you want to know how to do contextualist interpretation, Skinner’s actual research is more useful than his methodological writings (a partial exception being Skinner 2002a, 114-22). And while Leo Strauss gives practical guidance on interpretation (e.g. Strauss 1952, 30-2), his suggestions are fundamentally weakened by logical errors and false dichotomies (Blau 2010b). Few other textual interpreters offer practical guidance (though see Lloyd 1992, 15-16; Martinich 2001, 311-20; Martinich forthcoming).

Moreover, most methodological discussion about interpreting historical texts is narrowly focused. Much deals primarily with contextualism, as Philp (2008, 131) notes. Yet few people now suggest that we can understand historical texts without some contextual knowledge (Runciman 2001, 84). Indeed, methodological discussion in this area has largely stagnated. The last big attempt to say something new (Bevir 1999) has not been applied by practitioners.

This chapter proceeds as follows. Section 2 gives a theoretical case for a science of interpretation. Section 3 offers practical principles of good interpretation, using ideas from science: uncertainty, underdetermination, falsification, best-fit analysis, theory-ladenness, selection bias, triangulation, and publicity. Section 4 concludes by considering possible objections.

2. The scientific basis of textual interpretation

The idea of science used here looks as much to philosophy as to the natural and social sciences. On this broad view of science, which many scientists might reject, the three cores of scientific analysis are facts, concepts, and logic. Scientists, as I depict them, seek empirical truth, conceptual clarity, and inferential validity.

Simplifying considerably, natural and social scientists emphasise truth and inferential validity (especially inductive validity), analytic philosophers emphasise conceptual clarity and inferential validity (especially deductive validity). All three are important for textual interpreters.

The term 'scientific' is not ideal. But no alternative is better. My position is sometimes called 'naturalist': philosophy is continuous with natural science (Ritchie 2008, 195). But 'naturalism' more often implies the *primacy* of natural science (Ritchie 2008, 196), a view I reject. Another possible term is an 'analytic' approach, as with analytic philosophy and analytic political theory; but 'I am an analyst' or 'I am an analytic interpreter' is not a useful description. 'Scientific' is appropriate not least because my practical guidelines come mainly from (social) scientists and philosophers of (social) science. But some readers who accept my general position may prefer to think of themselves as in the naturalist or analytic tradition.

Not all scientists share my focus on truth. For example, some 'instrumentalists' sidestep the issue of empirical truth: the plane flies, the bridge stands, the pill works. But they still use scientific approaches, and arguably, they rely implicitly on truth: if the plane flies, is that not truth? In practice even scientists who believe in truth rarely mention it: the hypothesis is confirmed, the predictions are right, the theory works.

As I see it, what unites natural scientists, social scientists and analytic philosophers – and what ultimately distinguishes them from postmodernists, postpositivists and poststructuralists – is the assumption that there are right answers. So, a simple definition of science, narrowly conceived, is: the attempt to get right answers to empirical questions. A simple definition of science, broadly conceived, is: the attempt to get right answers to empirical, conceptual and logical questions. I thus explore factual, conceptual and inferential rightness in relation to textual interpretation.

2.1. The factual basis of interpretation

At root, scientists assume that there are facts which we can *potentially* know. I emphasise ‘potentially’ to forestall any claim that scientists think facts speak for themselves or that our perceptions must be right. Many people used to make such comments; doubtless some still do. But sensible scientists now accept that ‘two observers need not “see” the same thing’, since what they see depends on their upbringing, knowledge and expectations (Chalmers 1999, 5-9), that we can never know things for certain (King, Keohane and Verba 1994, 8-9), and that what we treat as ‘facts’ may be wrong or may not represent what we think they represent (King, Keohane and Verba 1994, 32-3). Scientists often talk of ‘observations’, not facts (Katz 2009, xi).

Textual interpretation too is essentially factual insofar as interpreters focus on actions and beliefs. Actions include authorship (how much of *The Fatal Conceit* did Hayek write?), chronology (did Machiavelli start to write the *Discourses* before or after he finished *The Prince*?), and reception (did Mill read Marx?). But I will focus solely on beliefs. Recovering authors’ beliefs is the ‘primary task’ for many scholars, especially historians of ideas (Skinner 2002a, 50). It is of secondary importance for many political theorists; Seana Shiffrin, for example, mainly seeks principles of fair equality of opportunity, but also strives to find Rawls’s views on racial equality (2004, 1644-62). And some scholars are not intrinsically interested in authors’ beliefs (e.g. Pettit 1997, 4-7, 10-11). Students interested in ‘rational reconstruction’ of texts, for example, will learn more from chapters 1 and 2 of this book.

Three kinds of beliefs can be distinguished. The most general kind, which I will largely ignore, involves questions such as: what did Hobbes think about God? Did Montesquieu know how incorrect his depiction of the British constitution was? Did Madison and Jefferson understand social choice theory? Does Habermas consider himself to be a liberal?

The two kinds of belief I will instead focus on are forms of ‘intention’. We often talk loosely about intentions (e.g. Pocock 1989, 25) but I find it helpful to distinguish two kinds of intention: motives and intended meanings (see Skinner 2002a, 97-8, 113, respectively). Motives are the reasons why authors wrote what they did. Machiavelli presumably had several motives in writing *The Prince*, such as fame, intellectual pleasure, and political advancement.

Intended meaning is what the author herself understood by a word, statement, passage, or text. (Philosophers of language call this ‘speaker-meaning’ or ‘utterer-meaning’.) Machiavelli presumably had some understanding of what he meant by words like *virtù* and *fortuna*. When Locke scoffs at Hobbesians who are so desperate to avoid ‘polecats and foxes’ that they ‘think it safety, to be devoured by lions’ (*Second Treatise* section 93), he does not mean this literally. Rather, the situation is *like* this: people are so keen to avoid a state of nature that they choose absolute government, which is worse. Intended meanings can be subconscious (Freeden 1996, 102). Recovering intended meaning is the goal of most historians of political thought.¹

Crucially, beliefs are empirical: intentions and beliefs are states of mind, they are physical phenomena, and our descriptions of them can be true or false, as with other physical phenomenon (Searle 1983, 230; McCullagh 1998, 140). It is a matter of fact whether Hobbes did or did not think that God exists. It is a matter of fact whether Machiavelli was motivated to write by pleasure. It is a matter of fact whether Locke’s comment about polecats and foxes was a metaphor about absolute sovereignty, or something like this, or something totally different. Even ambiguity, intentional or unintentional, is a state of mind. (For Rousseau, a permanent one.)

This is worth emphasising because a common objection to my position is that authors are not clear about their intentions. If so, that too is a fact. No author’s intentions are fully unambiguous or conscious; but they are not usually so ambiguous that communication becomes impossible. If you say ‘authors are not clear about their intentions’, and I respond ‘you mean elephants grow on trees?’, you may reply ‘that is not what I meant’. Most speakers and writers have a sufficiently clear idea of what they mean for communication, and for a science of interpretation.

Inevitably, we will never know these facts for certain: states of mind cannot be directly observed, and direct observation can anyway mislead. Nor can we know if we know a fact. But there is, scientists assume – without being able to prove – a fact of the matter.

Importantly, though, factual claims are also conceptual. I thus turn to the second feature of science: concepts.

¹ A scientific approach also applies to ‘extended’ meaning (Blau 2009b), which I do not have space to consider. Extended meaning has the same categories as science: factual, conceptual and logical. For ‘how-to’ advice on conceptual and logical forms of extended meaning, respectively, see O’Neill (chapter 1) and Steiner (chapter 2).

2.2. The conceptual basis of interpretation

Although beliefs are themselves factual, we inevitably report them in conceptual terms, in two different ways. The first is that we report claimed facts with human-made concepts (Skinner 2002a, 16). Since our conceptual schemes are constructed rather than natural, none can be ‘uncontentiously employed to report indisputable facts’ (Skinner 2002a, 45).

Calling Hobbes an ‘atheist’, for example, is both a factual and a conceptual claim. Hobbes’s mental states about God are matters of fact. But Hobbes’s alleged atheism also depends on how we define ‘atheist’, a conceptual matter. To see if Hobbes was an atheist, we need to uncover his beliefs about God (factual), then see how our claimed facts match up to a definition of atheism (conceptual). And other conceptual issues may be relevant: if Hobbes’s views changed over time, say, the term ‘Hobbes’ will need qualifying. Still, these serious conceptual obstacles do not preclude the fact that Hobbes had certain states of mind about divinity.

Importantly, this type of conceptual claim can be right, partly right, or wrong – just as with factual claims. *If* we define atheism as having certain necessary and sufficient conditions, and *if* Hobbes meets those conditions, then he is an atheist; if not, not. Or more accurately, he is an atheist to the extent that he meets those criteria, assuming no other definition fits him better.

The second way in which concepts are fundamental to factual analysis of texts is that to understand a term or statement we often have to ‘translate’ it into its conceptual equivalents, and distinguish it from its conceptual non-equivalents (Blau 2009c). I do not speak Greek, so I cannot understand Plato’s *Republic* unless it is translated into English. Misunderstanding can arise here too. For example, is Plato’s term *dikaiosune* conceptually equivalent to ‘justice’, and/or to something broader like ‘morality’? If, for the sake of argument, Plato always meant ‘morality’, but the translation I own always says ‘justice’, I would not fully understand what Plato meant. The same applies to translation within a language. Hobbes uses the term ‘corrupt’ in several different ways – political, moral, cognitive, and so on. We understand Hobbes better when we can differentiate between these different senses, translating each of his uses of the term into its conceptual equivalent (Blau 2009a).

Understanding is a matter of degree, and we understand what people say to the extent that we can translate it into ideas, pictures, terms or sentences which we know the

meaning of. There are serious problems of indeterminacy of translation, of course, but the situation is not hopeless (Dunn 1978, 157, 165, 172). The same idea of conceptual equivalence applies to the *Begriffsgeschichte* school of conceptual history, which explores similarities and changes in concepts, including comparisons with ‘opposite, related, and parallel expressions’ (Bödeker 1998, 55).

The above account of understanding is very brief and partial, but it should suffice to illustrate the centrality of conceptual equivalence for textual interpreters. Interpretation, then, is both factual and conceptual. We cannot avoid seeing things through conceptual lenses (see also section 3.4). We cannot avoid reporting factual claims in conceptual terms; we must try to do so clearly and precisely (see also section 3.3). We cannot avoid understanding authors by translating their terms into conceptual equivalents; we must try to do so accurately. So, while there is no such thing as a right or wrong concept, there are right and wrong claims involving concepts. Furthermore, while our factual claims remain uncertain, conceptual claims can sometimes be known to be right. To understand this, we must consider logic.

2.3. The logical basis of interpretation

Interpretation involves three kinds of logical inference: deduction, abduction and induction. Deduction produces conclusions which follow necessarily from their premises. For example, ‘all men are mortal, Socrates is a man, therefore Socrates is mortal’. (A deduction can be valid but empirically incorrect: for example, ‘all men are carrots, Socrates is a man, therefore Socrates is a carrot’. We shall see something similar for inductions.) This explains how conceptual claims can be right, as just mentioned: if we say that criterion *P* is the necessary and sufficient condition for someone being an atheist, and if Hobbes has criterion *P*, then Hobbes is an atheist. Deductive logic is thus fundamental to conceptual analysis.

We also use deductive logic when we try to uncover intended meanings by logically probing two ideas to test their consistency. Consider Hobbes’s account of liberty. He first defines a free man as someone who can do what he has a will to do. He then states that liberty is compatible with fear: if someone takes an action reluctantly but voluntarily, this was an action he could have refused to take (*Leviathan* ch. 21, p. 146). Given Hobbes’s definitions, it follows necessarily – deductively – that fear and freedom are consistent.

Now imagine that Hobbes did not make the link explicit. Say that when he defines liberty, he says nothing about fear; ten years later he writes that fear and liberty are compatible, but does not explain this. Does Hobbes have the same understanding of liberty in the two places? We can test this by seeing if the compatibility of fear and liberty follows from the original definition. Seeing that it does would not prove that this was what Hobbes had in mind, of course. Conversely, if an author's definition is not consistent with a later comment, she might still have had the same intended meaning without spotting the logical error. There is no *a priori* way of knowing how to deal with an apparent inconsistency (Martinich 2001, 317). So, this kind of deductive probing does not produce certainty about intended meanings. But it is a valuable tool for interpreters.

We do such probing in reverse when we try to infer an author's intended meaning from her use of a term. Machiavelli often discusses *virtù* but does not say what it is. What definitions of *virtù* are consistent with his comments? Ability in general? Christian virtues? Skinner argues instead that 'qualities ... conducive to military and political success' is the definition most consistent with Machiavelli's comments (2002a, 48). Machiavelli indeed uses the term like this 'with complete consistency' (2000, 40; see also Skinner 2002a, 55-6).

Such backwards reconstructions are examples of 'abduction', or inference to the best explanation – attempts to find the explanation which best fits the data. If the ground all around is wet, perhaps it has rained; if the ground is only wet where a dog was standing, perhaps the explanation is *P*. If Machiavelli's comments about *virtù* are consistent with the idea of qualities conducive to military and political success, perhaps this is his intended meaning.

Abductions may be wrong: the above examples are guesses. 'Even our most confident ascriptions of intentionality are nothing more than inferences from the best evidence available to us, and as such are defeasible at any time' (Skinner 2002a, 121). Sherlock Holmes's so-called 'deductions', incidentally, are abductions.

Inductive logic takes several forms. For us the most important involves extrapolation. If Hobbes defines a term in one place and uses the same term elsewhere, we might inductively infer that his original definition applies to these other comments too; we can test this by looking at deductive consistency, as just described. Induction, like abduction, may be wrong: we may be wrong to induce that the sun will rise tomorrow just because it has risen for all previous mornings. An induction becomes *valid* when we

state its probability correctly. If you see a rotten melon in the 1000 melons at your supermarket, and you infer that all of the melons must be rotten, then your induction is invalid, even if it is empirically correct. If you see another 998 rotten melons and infer that there is more than a 99 percent chance that all 1000 are rotten, then your induction is valid. (And you should probably go to a different supermarket.) Induction is never certain. As with deduction, an induction can be valid, given the evidence, but empirically incorrect (Collingwood 1928, 218-9).

So, deductive inferences can be right or wrong, on the basis of their validity or empirical correctness. We also use deductive inferences to make abductive and inductive ones. Abductions and inductions ultimately depend on the accuracy of their factual claims: abductions and inductions can be eminently reasonable yet factually wrong. But they are widely used in scientific inference (Glynos and Howarth 2007, 18-47), and textual interpreters may benefit by recognising different kinds of logical inferences at different points in their work.

2.4 Summary

Roughly, textual interpreters ask four main kinds of question: factual (e.g. why did Spinoza write the *Ethics*?), factual-conceptual (e.g. was Plato a feminist?), conceptual (e.g. is Constant's 'modern' liberty equivalent to 'negative' liberty?), and logical (e.g. how coherent is Hume's account of property?). Even primarily conceptual and logical questions are partly factual: the last two examples depend on Constant's and Hume's understandings of liberty and property, respectively.

So, the theoretical case for a science of interpretation rests primarily on two assumptions: there are facts, and we can potentially know them. Deductive logic supplies further standards of rightness, to deductive inferences and to some conceptual inferences too. Inductive inference can be valid, but like abductive inference its rightness ultimately rests on factual correctness. While I am not arguing that there are 'right' concepts – a concept like 'feminism' is a human construct, and can legitimately be defined in different ways – there are no right answers about whether Plato is a feminist unless 'feminism' is defined clearly.

So, textual interpretation about beliefs is not only factual but also conceptual and logical. In all of these cases, an argument may be right or wrong, or somewhere in between. Insofar as our interpretations rest on factual claims, we can never know if our

claims are right. Insofar as our interpretations rest on deductive logic, we can know if our claims are right; but ultimately, where our aim is to recover authors' beliefs, our interpretations rest on factual claims which are ultimately uncertain. Nonetheless, uncertainty about rightness does not preclude rightness.

This is the theoretical basis on which a science of interpretation rests. To interpret intended meanings precisely, we should analyse concepts clearly and make viable inferences. It is striking that existing methodological discussions of interpretation have not addressed this, and that conceptual and logical analysis is an entirely informal part of training in textual interpretation. But ultimately, you can reject my arguments about concepts and logic, and still see interpretation as scientific because of its factual assumptions.

3. The practice of interpretation: lessons from science

Having defended a science of interpretation, I now offer practical advice for textual interpreters. You can oppose my theoretical arguments but still find useful tips below.

3.1 Uncertainty²

For King, Keohane and Verba, a core feature of science is that the 'conclusions are uncertain' (1994, 8). We can have 'some knowledge of the external world', but 'such knowledge is always uncertain' (1994, 6; see also Collingwood 1994, 487; Skinner 2002a, 121). We thus need 'honest statements of the degree of uncertainty entailed in each conclusion' (King, Keohane and Verba 2004, 185; see also 1994, 32, 76, 79, 152).

King, Keohane and Verba are thinking about quantitative research: in statistical analysis, we automatically get estimates of uncertainty, such as a 95% chance that two samples are from the same parent population. However, King, Keohane and Verba give almost no guidance about uncertainty in qualitative research (Bartels 2004, 71), like textual interpretation. Worse, qualitative estimates of uncertainty are profoundly different to the objective estimates of uncertainty which King, Keohane and Verba have in mind. In qualitative research, uncertainty is subjective: a researcher indicates how strong she thinks the evidence is. For example, to say Hegel 'probably' meant *F* is to say 'I think the

²This section is heavily condensed from Blau (2010a).

evidence is fairly strong that Hegel meant *F*'. Hegel 'almost certainly' meant *F* is shorthand for 'I think the evidence is extremely strong that Hegel meant *F*'. It is 'possible but unlikely' that Hegel meant *F* implies 'I cannot rule out that Hegel meant *F*, but the evidence seems weak'. Reporting uncertainty about everything would be incredibly tedious. But reporting uncertainty is often valuable, especially in comparative assessments: 'it is possible that Hegel meant *F* but more likely that he meant *G*', for example.

Noel Malcolm is outstanding at reporting uncertainty on empirical matters such as whether Hobbes was the translator of the English version of his book *De Corpore* (Malcolm 2004, 334-6). John Gray (1996, 70-85) is a fine exponent of reporting uncertainty on such things as Mill's account of happiness. Leo Strauss shows how *not* to report uncertainty, using highly questionable evidence to make overly bold claims (e.g. (Strauss 1958, 29-30; see Blau 2010b).

Importantly, subjective uncertainty means that when we answer empirical questions in textual interpretation, we are not telling our readers what the facts are: we are telling our readers how strong we think the evidence is for our claims – a crucial shift of perspective. In conceptual and deductive analysis, of course, uncertainty is only important insofar as our arguments involve factual claims, for example about intended meanings.

Subjective estimates of uncertainty may well be misleading; but equally, two samples may not be from the same parent population even when statistical analysis suggests that they almost certainly are. Ultimately, the best we can do is report uncertainty reasonably and honestly. This helps our readers assess the evidence, it stops them from being taken in by overstatements based on slender evidence, and it can spur further research. Our collective aim is to reduce uncertainty as far as possible – which will, for textual interpretation, often be not very far at all. Uncertainty applies also to living writers' beliefs. If we ask an author 'why did you say this?' or 'what did you mean?', she may have forgotten, or her answer may deceive herself or us.

Practical advice about the reporting of uncertainty would thus be as follows:

Look for how strong your evidence is for and against your empirical claims. Try to give an honest, reasonable estimate of how uncertain you are in your claims; don't overstate yourself. If your conclusions do not convince you, seek more evidence.

3.2 Underdetermination

'Underdetermination' occurs when two or more explanations fit the data (Newton-Smith 2000). The worrying implication is that even if your interpretation looks plausible, it may still be wrong (Føllesdal 1979, 332). Take Rousseau's argument that a man may be 'forced to be free' (*The Social Contract* book 1 chapter 7, p. 53). For Ritter and Bondanella, this is about forcing a man to *maintain* his freedom: someone who renounces the social contract will be outside the law and might legally be maltreated, but forcing him to stick to the social contract keeps him in society, protecting his existing civil and moral freedom (1988, 95). For Rosenblatt, however, Rousseau is showing how someone can *attain* freedom: on the Christian/republican view of moral freedom which Rousseau seems to share, abiding by the right laws itself makes one free (Rosenblatt 1997, 255-6).

Perhaps Rousseau meant just one of these possibilities. Perhaps he meant both: different explanations can be compatible. Perhaps he meant something else. Perhaps he was not clear about what he meant: confused intended meanings are just as much factual states of mind as precise intended meanings. There may be no way of assessing our degree of certainty about different interpretations, especially where evidence is slim.

So, interpretation is relative but not relativist. Interpretation is not relativist: I am not saying that any two interpretations are equally good. Even if two theories fit the data, one may be more convincing (Newton-Smith 2000, 532-6). But interpretation is relative: defending a single interpretation is often inadequate. If most scholars think an author means *P* but you think she means *Q*, you should weigh up the evidence for and against each theory. Don't be like the judge in a singing competition who awards the prize to the first competitor without hearing the other singers, simply because the first competitor was very good. Many social scientists commit this fallacy, defending a theory in absolute but not relative terms. (A brilliant exception is Clarke et al. 2005, 237-61.)

It also helps to look for 'observable implications' (King, Keohane and Verba 1994, 28-9, 39-41). If your explanation is right, what else would you expect to see? And what would you not expect to see? And if another plausible explanation is right, what would you expect to see, and not to see?

A failure to ask such questions explains why the theoretical basis of Strauss's esoteric interpretations remains precarious. Strauss claims that Machiavelli was a perfect writer who hid messages in very particular ways. If so, Machiavelli would have wanted

some people to spot these messages. If so, there may be evidence that some of his contemporaries read texts in these particular ways. This evidence has not been supplied – indeed the evidence we currently have is that the first person to read Machiavelli like this was Leo Strauss (Blau 2010b).

You will not necessarily *report* your assessment of alternative interpretations, for reasons of space or style, say. But you would be wise to *consider* plausible alternatives. You won't do this with all options: they are arguably infinite, and many do not deserve serious attention. But at the very least, we can ask 'what else could explain this?'. Strauss, again, falls short here. For example, he thinks that numerical regularities in Machiavelli's work are intentional, without seeing that they could easily arise by chance (Blau 2010b).

More than one interpretation will fit the evidence: your explanation may not be the only one. Ask 'what are the observable implications of this and other theories?', and 'what else could explain this?'. Assess different explanations both positively and negatively (what evidence does and does not fit them) and both absolutely and relatively (absolute, in terms of strength of evidence; relative, in comparison to each other).

3.3 Falsification: logic and disposition

According to a strict logic of falsification, a scientific hypothesis can be conclusively disproved but can never be conclusively proved. The claim 'all swans are white' could never be proved, however many white swans were found, but it could be disproved with a single non-white swan. However, underdetermination undermines falsification: if any evidence has at least two explanations, then allegedly falsifying evidence can also be explained away (Newton-Smith 2000, 534-5).

A weak logic of falsification may still help. First, as already discussed, we should look not only for evidence that confirms an interpretation but also for evidence that does not confirm it. Any of this evidence, positive or negative, may still be explained away; but we are much more likely to err if we only look at what supports our theory.

Second, even if we choose not to state theories in a falsifiable manner, as is often recommended (King, Keohane and Verba 1994, 100), our theories should be sufficiently clear and precise to be *tested*. In other words, we should avoid theories which are too diffuse or fuzzy to analyse rigorously. In factual-conceptual analysis, high-class empirical research is often let down by implicit or overly ambiguous conceptualisation. For

example, Richard Tuck's (2004) argument about Hobbes's 'utopianism' does not state what it means to be utopian. Virginia Sapiro, by contrast, is much more precise in discussing whether Wollstonecraft is a feminist (1992, 258-9). We can disagree with Sapiro's conceptualisation of feminism. But that is the point: we *can* disagree with her conceptualisation, whereas Tuck's conceptualisation is too implicit to agree or disagree with.

Some studies proceed without an apparent question. Social scientists often ask 'what is my dependent variable?', and textual interpreters should similarly ask 'what is the problem I am trying to solve?' Think about whether you are trying to describe, explain and/or evaluate intended meanings, motives, or something else. Avoid saying that your aim is to 'explore' or 'analyse' something, unless you add 'in order to test *X*' or 'to see if *Y*'. Rather than saying 'I will examine the reception of book *B*', ask questions like 'who defended or criticised the book, and what explains their different stances? Who accepted the arguments, and why?' Making your research questions explicit often helps you structure the ensuing arguments.

An example of what to avoid is Warren Chernaik's (2002) paper on Aphra Behn's 1688 novel *Oroonoko*. After noting 'how little critical consensus there is about how that work treats the institution of slavery', Chernaik tells us what his own contribution 'takes its origin from', but not what his contribution is. The paper then jumps straight into a historical analysis of Behn's republicanism. Even by the end of the paper Chernaik's specific contribution is unclear, although it seems from one passage about a third of the way into the paper that Chernaik sees the book as anti-slavery (Chernaik 2002, 99-100). A more helpful approach could be to state the research question (e.g. 'is Behn's *Oroonoko* pro-slavery or anti-slavery?') and explain its intellectual importance in a literature review which outlines different interpretations. The paper could then assess the evidence for and against the anti-slavery and pro-slavery interpretations. (There is probably no need to give conceptual criteria for these positions, which are presumably clearer than the more contested notions of 'utopian' and 'feminist'.) This may seem formulaic, and Chernaik as an English professor may have other views about presenting interpretations. But this example illustrates how we can sometimes repackage our research to make it clearer and harder-hitting.

I now turn from the logic of falsification to two 'dispositions' of falsification, passive and active. A passive disposition of falsification means taking alternative

interpretations seriously and open-mindedly. ‘The emphasis on falsifiable theories forces us to keep the right perspective on uncertainty and guarantees that we treat theories as tentative and [do] not let them become dogma’ (King, Keohane and Verba 1994, 100). In short, you should be ready to change your mind. An active disposition of falsification means applying the above scientific principles to your own interpretations. ‘Confirmation bias’ is the widespread human tendency to spot, remember and/or reinterpret evidence which suits one’s own theory (Nickerson 1998). It would be surprising if you were immune from this. The first step in tackling a bias is to accept that it exists; the second step is to do something about it. As Elster says, one should ‘think against oneself’ (2007, 20; emphasis removed). Taking uncertainty, underdetermination and falsification seriously is a way of institutionalising this.

Present your theories/questions sufficiently clearly and precisely that you and others can test them. Define key terms; provide criteria where necessary. Think against yourself. Don’t become attached to an explanation because it’s yours; become attached to an explanation because you think it’s right. The two won’t always go together, unless you are staggeringly clever or astonishingly lucky.

3.4 Best-fit analysis and theory-ladenness

I will now clarify a key idea underlying sections 3.1 to 3.3: a good ‘fit’ between theories and texts. I will sidestep much that hermeneuticists have written on this. In general, I agree with naturalists that hermeneuticists lack precision at key moments, and that basic hermeneutic claims often fail when analysed carefully (Hirsch 1967, 247-64; Stegmüller 1977, 2-25; Føllesdal 1979; Martin 1994; Mantzavinos 2005, 9-69).

But nor do naturalists capture quite how we fit theories to texts. I do not accept the standard naturalist view that textual interpretation ‘is nothing but a special case of the hypothetico-deductive method’ (Elster 2007, 52; see also 17-20, 52-66, 246-56; see also Hirsch 1967, 244; Føllesdal 1979; Mantzavinos 2005, 132-45). The basic idea behind hypothetico-deductive analysis is to deduce the consequences that would follow if a hypothesis were correct, then look for these consequences in existing or new data. However, what Elster, Føllesdal and Mantzavinos really describe is *hypothetico-inductive*, not hypothetico-deductive: the predictions do not follow necessarily from the hypothesis but are simply reasonable expectations (Elster 2007, 17-20; Føllesdal 1979, 324, 327; Mantzavinos 2005, 139-44). It could hardly be otherwise for textual interpreters. Hirsch, meanwhile, does not ultimately describe induction or deduction at

all, just a hypothesis which ‘best explains the relevant data’. This is closer to best-fit statistical analysis, as when we plot a best-fit line through points on a graph. And Føllesdal’s three principles seem to amount to best-fit analysis plus underdetermination – whether a hypothesis fits the data, and whether another hypothesis does better (1979, 324).

That is indeed the most helpful way to think about factual and conceptual interpretations. Best-fit factual analysis uses abduction to ask which hypothesis is most consistent with the evidence. Why did Aristotle give two different accounts of ethics? We plug in different explanations – e.g. he changed his mind, or he gave different accounts to different audiences – and see which fits better. Best-fit conceptual analysis uses conceptual equivalence to see which conception is most consistent with an author’s ideas. What does ‘liberty’ mean to Arendt? We plug in different definitions, including her own, to see which one(s) fit best, remembering of course that she may be ambiguous and/or inconsistent.

Four points are worth emphasising. First, what fits may be incorrect, as every statistician knows: reasonable abductions and inductions can be wrong. Second, goodness of fit includes looking for what does not fit, and amending the explanation accordingly, just as statisticians add extra variables. If our explanation does not fit something important, we should try to say why. Perhaps the author made a mistake, or changed her mind over time, for example.

Third, an explanation or conception which fits one part of a text may not fit others. We often change our interpretation of a particular passage to achieve a better overall fit. Sometimes the reverse is true. For example, different interpretations of Hobbes’s aims in writing *Leviathan* partly reflect how we read its final chapter. No interpretation is unchangeable: we need a ‘reflective equilibrium’ in how we interpret different parts of a text (Føllesdal 1979, 332).

Fourth, in factual best-fit analysis, we often give more weight to an author’s ‘leading ideas’ (Schleiermacher 1998, 27). For example, we may read some of *On Liberty* differently if we see it as part of Mill’s broader attack on moral intuitionism (Ryan 1998, 516-7; e.g. *On Liberty* ch. 1 paragraph 5, p. 9). Although no author is fully consistent, we should think twice if an interpretation clashes with a leading idea. But we do not know what the leading ideas are, of course. Was Hobbes’s materialism really central, for example (Rawls 2007, 29-30)? Worse, this process can be circular: we have a theory

about what the leading ideas are, this theory influences our interpretation of other ideas, and we think the theory is confirmed.

That brings me to ‘theory-ladenness of observation and evidence’: different people often perceive or interpret the same things differently, due to different theoretical expectations, conceptual frameworks, linguistic assumptions, and so on (Brewer and Lambert 2001). Theory-ladenness can never be fully defeated, but at some levels it can be combated. Take Strauss’s argument that Machiavelli’s apparent errors are actually intentional indicators of hidden messages (e.g. Strauss 1958, 36-42, 121, 130). To fight theory-ladenness, Strauss could have asked if another theory might fit better, and he could also have tested his theory by looking for observable implications. By failing to ask such questions, Strauss becomes a slave to his theory: he looks for evidence which fits his theory, finds it, and concludes that the theory is right. This is epistemologically naive: you can prove anything this way. And Strauss does. (See Blau 2010b.) (Incidentally, one reason why I prefer scientific accounts of theory-ladenness to hermeneutic accounts of hermeneutic circles is because the former offer more constructive advice on how to address the problem.)

It is harder to tackle theory-ladenness at the deeper level described by Gadamer: our pre-judgements and the limitations of our conceptual horizons influence our interpretations, especially when analysing historical authors (Gadamer 2004, 268-73, 291-9). To have a hope of ‘seeing things their way’ (Skinner 2002a, 1), we must enter their mental worlds, or at least use insights from scholars who have done this themselves. This often means reading historical scholarship to avoid anachronistic misunderstanding. With the help of experts, different mental worlds are not usually incomprehensible even to non-experts. But experts may be wrong, of course.

Goodness of fit, factual or conceptual, is the key to a good interpretation. Look too at what does not fit, at more than just one passage in a text, and at alleged ‘leading ideas’. Remember that your prior theoretical expectations may be faulty. Read work by experts, but do not be too trusting.

3.5 Selection bias and completeness

Thus far, I have discussed different readers interpreting the same material in different ways. Often, though, different interpretations reflect different data. Debates in social science frequently turn on which cases are included or excluded in the analysis.

One well-known example involves the causes of revolutions. Perhaps we think factor *F* causes revolution: we have good theoretical reasons to think this, and *F* was present before every revolution we examined. But actually, we have only a partial picture. We must also inspect cases where revolutions did *not* happen: if *F* was also present there, our explanation is too simple (Geddes 1990, 132, 142-5). Social scientists call this ‘selection on the dependent variable’, a common form of ‘selection bias’. The basic problem involves unintentionally seeking evidence which supports your interpretation, while overlooking conflicting evidence.

In textual interpretation, this happens in four main ways. First, in terms of the type of evidence, which I discuss in section 3.6. Second, in terms of authors sampled from a larger group. John Maynor (2003) defends republicanism against ‘liberalism’ but only addresses deontological liberals like Rawls; perfectionist liberals like Raz and Galston do not make the errors he attacks. Maynor should not criticise liberalism as a whole, only deontological liberalism (Blau 2004b). Third, in terms of texts sampled within an author: what ‘Rawls’ believed sometimes changes over time, for example. Fourth, in terms of passages sampled within a text. Many scholars misunderstood Locke because they skimmed the early theological parts of *Two Treatises* and hence missed ‘the theoretical centrality of Locke’s religious preoccupations’ (Dunn 1969, xii). A more pernicious version of this fourth problem occurs when authors do not do what they say they do. Many people think that Berlin’s essay ‘Two Concepts of Liberty’ addresses two concepts of liberty – a not unreasonable view, one might think. The essay’s later sections, however, contain at least four ‘positive’ ideas of liberty; it is not obvious that these constitute a single concept (Miller 1991, 13; Blau 2004a, 548). We cannot fully understand Berlin without seeing that there is a sense in which he has both a single idea of positive liberty *and* at least four different ideas.³

There are different solutions to selection bias. One is to ‘get *all* observations if possible’ (King, Keohane and Verba 1994, 128-9; emphasis added). Social scientists can rarely do this (though see Jones and Baumgartner 2005) but textual interpreters can sometimes read all of the extant textual evidence. This may be impractical, where someone wrote too much, as with Bentham. It may also be undesirable, where someone wrote too badly, as with Bentham. Most of us can barely dip into many authors who we quote.

³ I explore four different notions of what it means for an author to ‘have’ a doctrine, in a constructive critique of Skinner’s attack on anachronism, in Blau (2009c).

Nonetheless, the ideal of completeness remains: our interpretations should account for all of an author's comments (Lloyd 1992, 15; Martinich 2001, 318). Take Mill's brief remarks on 'offences against decency' (*On Liberty* ch. 5 paragraph 7, p. 98). This paragraph seems to contradict his arguments about harm. Did Mill mean what he wrote here, or was he just trying to deflect criticisms from prudes? Did he make a mistake? Might a new interpretation of this passage fit better? Might we even need to reinterpret his arguments about harm? This last possibility is the scariest: without satisfactorily explaining this apparent inconsistency, our broader interpretation of Mill remains questionable. But our interpretations are always questionable. A textual interpreter's job is not always easy.

Nor is the extant evidence the same as the whole population of beliefs. Some of Hobbes's religious beliefs, for example, may have stayed unpublished. So, the data we have may itself be biased: selection on the dependent variable can still arise 'if data *availability* is related to the dependent variable' (King, Keohane and Verba 1994, 132; emphasis added). Perhaps Hobbes intentionally misrepresented his religious beliefs and covered up other evidence, for example by not heckling in church. The inevitable incompleteness of our data further highlights uncertainty and underdetermination.

Another solution to selection bias is easier, though less satisfying: make conclusions less general. Maynor should attack deontological liberalism, not liberalism in general; we can make claims about Bentham's position in particular texts, rather than Bentham's position in general; and so on. Turning an inductive over-generalisation into a summary, or reducing the generality of our inductions, makes such conclusions more accurate – though less powerful. Scientists usually prefer the former. But again, there are times when it is tedious to do so; most of us need not rephrase every statement about what 'Locke' believed into what 'the mature Locke' believed, simply because the young Locke had different views.

Avoid selection bias by aiming for completeness in accounting for observations, insofar as this is possible and desirable. Consider how incompleteness might affect your findings. Reduce the generality of your conclusions as necessary and desirable.

3.6 Triangulation

In social science, triangulation involves comparing inferences produced with different methods, like quantitative and qualitative methods. If different methods imply the same conclusion, this supports a claim; if not, we should rethink.

I will talk about textual triangulation not in terms of different methods but different kinds of 'data'. Four kinds of data are especially important: textual, contextual, motivational, and logical. Textual data involve things written by the author(s) you are primarily focusing on. You cannot do textual interpretation without textual data; usually, you cannot do it well without other data too.

Contextual data may involve historical events or circumstances – Machiavelli reacting to the Medici takeover, or Tocqueville responding to authoritarian French governments. Contextual data can of course be in texts – Marx reacting to Feuerbach on religion, or Wollstonecraft responding to Rousseau's depiction of women. Contextual data also include linguistic conventions. Hobbes, for instance, uses particular technical terms about rhetoric; we cannot fully understand his comments unless we understand these conventions (Skinner 1996). We talk about such data as contextual, not textual, for pragmatic reasons: some scholars try to understand an author primarily by examining her writings (textual), other scholars look elsewhere too.

Logical data are the logical implications of one or more concepts, propositions or passages. Section 2.3 showed how we can use logical implications to make inferences about authors' beliefs. This is especially valuable where an author gives a general statement without examples; looking for suitable examples can help us grasp what the author was getting at. Nonetheless, logical data should be used cautiously. If textual and contextual evidence points one way, while logical implications suggest a different conclusion, we will probably assume that the writer made a mistake and go with the textual and contextual evidence. Logical data may produce no clear answer, as with Rousseau's 'pluses and minuses' comment (*The Social Contract* book 2 chapter 3).

Motivational data are pieces of evidence about authors' motives. We often use motivational data to make inferences about intended meanings and beliefs more generally. If we think Defoe is sincere, we read his pamphlet *The Shortest-Way With the Dissenters* as advocating the execution of dissenters; if we think his motive is to defend toleration, we read the pamphlet as a satire (Skinner 2002a, 111-2). Skinner rightly stresses the need to look for motives (2002a, 98-100, 103-7, 112-3), but it is worth

emphasising that we *cannot* avoid making motivational assumptions. If we read a 17th-century philosophical text ahistorically, for example, we treat it as if the author's motive was to write a philosophical text for the ages. Skinner is, in effect, arguing that we should use *correct* motivational data, i.e. the motivations an author actually had. But caution is needed: we rarely have direct evidence about authors' motives. Indeed we often infer them *from* textual data. Circularity can ensue: we use texts to infer motives, then use these alleged motives to help understand the text.

Importantly, these four sources of data are not alternatives: most people use elements of all four, whether consciously or not. Although Skinner is often described as a contextualist, I see him as an outstanding triangulator: I find Skinner's work supremely impressive because it combines high-quality contextual analysis with usually unimpeachable textual readings, impressive logical probing of arguments, and well-justified motivational interpretations. His study of Hobbes's changing understanding of liberty is a fine, short example (Skinner 1990; 2002c, ch. 7).

Skinner recognises the centrality of textual evidence: contextual analysis is 'a further test of plausibility, apart from the evidence of a writer's own works, for any suggested interpretation of those works' (2002c, 285). Apparently, Skinner's classes in intellectual history at Cambridge used to involve eight weeks of close textual analysis of Hobbes's *Leviathan*. However, I am not suggesting, and nor is Skinner, that textual data take priority over contextual data. Both are almost always needed.

Not everyone needs to use all four kinds of data. Science is a cumulative enterprise, different people have different skills, and a plurality of approaches should be beneficial as long as we are prepared to learn from each other.

Beware of relying overly on one form of data. If you cannot do much contextual research yourself, read relevant work by historians. Be careful about inferences based on logical and motivational data, but do not ignore them.

3.7 Publicity

Science is not only a cumulative enterprise but also a public enterprise (King, Keohane and Verba 1994, 8). Other people should be able to see what your evidence is, and follow it up if they want.

This is especially important because of the centrality of *judgement*. We should not pretend that scientific analysis is simply about automatically applying rules (Brown 2000,

194-5, 201-2). For example, we often make judgement calls about how much weight to give to different texts – manuscripts versus published texts, an early text versus a mature text, or two different editions of a text, say. Two interpreters may thus agree about the meaning of different passages but disagree about how to interpret this overall. To help others assess our argument, we should make our judgements explicit where possible.

Another small but significant way of making arguments public is to give appropriate references. This is for one's own benefit too: it is the best way to ensure that a writer actually says what one thinks she says. In looking for the page number, I often discover that I have misremembered an idea. Page numbers are less useful when there are multiple editions of a text: referring to page 55 of *The Social Contract* is not much help for most readers. So, think about giving more precise references (e.g. book and chapter number for *Social Contract*, chapter and paragraph number for *On Liberty*).

Giving inadequate references may raise doubts about your expertise. Too many people defend or attack positions about which they seem to know little. Gadamer's unreferenced and misleading attack on 'modern science' (2004, 273) is one such example. Had Gadamer felt the need to support his claim with citations, he might have seen that the claim was overstated, and changed it. Many similar criticisms would have been avoided if their authors had better access to libraries.

Be explicit and precise about your evidence. Give page numbers and/or paragraph numbers for quotations, even for ideas which you cite without directly quoting.

4. Conclusion

This chapter's key recommendations boil down to the following:

In empirical interpretations, weigh up the evidence for and against competing interpretations, and pick what you see as the strongest. Your conclusions will always be uncertain, and you should always be ready to change your mind.

This is not rocket science. But it is science.

Many textual interpreters already practise scientific techniques. Even scholars who explicitly reject scientific principles sometimes assume them implicitly. Strauss, while firmly opposed to contemporary social science (e.g. Strauss 1959, 18-26), supposes that there are facts about authors' beliefs (Strauss 1996, 323-5). Skinner (1973) has

rightly criticised naive 1950s political science, and is now even more opposed to realist assumptions: while he ‘used to think far more in terms of correct interpretations, and to suppose that there is usually a fact of the matter to be discovered’, he now accepts ‘the force of Gadamer’s point that we can hope to see in the texts we study only what we are permitted to see by the horizons of our own culture and the pre-judgments built into it’ (2002d, 50). But these are not alternatives: I have suggested that Gadamer’s warnings about pre-judgements, and ideas of theory-ladenness more generally, are consistent with the existence of facts about authors’ mental states. Skinner’s substantive work seems to make the same assumption about facts, and his work has broadened many of his readers’ horizons precisely because he uses what I see as scientific methods.

We can fall short of scientific ideals in two ways: being non-scientific or unscientific. Non-scientific approaches, like poststructuralism, lie outside of science. Unscientific approaches assume that there are facts but try to reach them by means which significantly contravene scientific ideals. The scientific/unscientific distinction is a matter of degree, doubtless on several scales, and no scholar is fully scientific. Skinner is fairly scientific, Strauss is deeply unscientific.

I am not the first to depict textual interpretation as a science. Stigler (1965) is explicit about this, but his brief paper amounts to a simplistic assertion about interpretation in the light of basic/leading ideas, without even spotting the circularity problem (see section 3.4). Føllesdal (1979), Elster (2007, 52) and Mantzavinos (2005, 132-45) treat interpretation along scientific lines, although I have questioned aspects of their approach (see section 3.4). King, Keohane and Verba (1994, 37-41) want *Verstehen* interpretation to be scientific. And historians like Behan McCullagh (2004, ch.s 1-2) assume that there are facts which can potentially be known, for history in general and textual interpretation in particular. John Dunn (1978), ‘a practising social scientist’, also discusses a ‘realist’ approach to history. But he does not offer practical guidance, arguing dichotomously that since methodology cannot involve rules which always yield true findings (does anyone think this?), it should be ‘a counsel of prudence’, along the lines of ‘[i]f you want to find that out, I would not try to do so in that way’ (Dunn 1978, 175). The methodological advice in this paper lies between these two extremes. As practising social scientists should recognise, there are *logical* reasons for principles like selection bias. If you only look for evidence which supports your theory, your claims rest on precarious foundations. Why? Because of the logical principles discussed above.

Readers should not see me as slavishly exalting science. Much social science is conceptually simplistic, substantively banal, methodologically flawed, empirically inaccurate, normatively weak, or sheep-quantifyingly dull. This chapter has amended traditional accounts of falsification and hypothetico-deductive analysis, and many scientists will reject my broad view of science. King, Keohane and Verba's emphasis on uncertainty, which I support, is not echoed as strongly in other social-science textbooks I have read. Unlike much scholarship, I emphasise scientific *dispositions* as much as the *logic* of scientific analysis: the willingness to change your interpretations is as important as the procedures by which you test your interpretations. Furthermore, there are major variations in scientific theory and practice across the natural and social sciences – plus striking differences between these sciences and a science of textual interpretation. I am not arguing for a uniform approach to textual interpretation. I am defending *a* science of interpretation; I expect to amend this chapter's ideas in the future, and I hope others will offer other scientific principles. Nor is the guidance offered here exhaustive.

Readers sceptical about science might note that I have not mentioned laws, prediction, quantification, and the so-called fact/value distinction. I hope my critics will respond to *my* position, and not start attacking ideas like extreme logical-positivist views of sense/nonsense which few social scientists now accept. Indeed, many critics show little knowledge of social-science theories and practices; for example, Almond (1998, 79-81) dismisses Strauss's 'caricature' of social science.

I hope too that readers will not translate personal likings and dislikings into methodological statements about the superiority and inferiority of different approaches. I am sure I am not alone in having done this myself. I was once very critical of the idea of political 'science', in part because I felt alienated by much such work. It took me a long time to distinguish between what I disliked and what I thought was intellectually wrong. I also changed my views on the latter as I read more.

A scientific approach to textual interpretation does not require retraining: science is a supplement not an alternative. Many textual interpreters already practise these principles, although none of us do so perfectly. Critics will certainly find places where I transgress my own precepts.

The best test of a science of interpretation is to apply it and see if it helps you. The 'how-to' advice in this chapter may simply lead to a few more weapons in your existing armoury. It may mean no more than taking work you have already substantially

done and reshaping it around the edges so as to better defend yourself against possible objections. The success or failure of this chapter will ultimately depend on outputs – whether or not scientific principles give you better interpretations of your texts, better criticisms of competing interpretations, an extra chapter for your PhD, or a publication in a refereed journal.

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