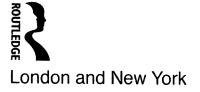
# Qualitative data analysis

A user-friendly guide for social scientists

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## Corroborating evidence

'Inquiry is rooted not in abstraction, deduction, and formalism but rather in the dynamics and demands of judgement, argument and lived conduct'

(Giarelli 1988)

In 1952, two young men, one of them armed, were cornered by the police on the roof of a confectionary warehouse in Croydon which they were trying to rob. One of the young men, Derek Bentley, gave himself up immediately. When Detective Constable Fairfax asked the other, Chris Craig, to give up his gun, Derek Bentley allegedly shouted to his friend 'Let him have it, Chris'. Chris Craig then shot and killed PC Sidney Miles before being overpowered. In the subsequent trial, the words 'let him have it' were interpreted as an incitement to murder, and although Derek Bentley did not fire the shot, he was hanged for the crime. Ironically, the 16-year-old Craig was too young to receive a similar sentence, and served ten years in prison instead.

The case became a scandal, not least because the 19-year-old Bentley had a mental age of 11, and the jury's strong plea for mercy was ignored. Much of the subsequent controversy turned on whether or not Bentley had actually said the fatal words, and whether, if he did, they were incriminating. Craig always maintained that no such words were spoken, a claim supported later - twenty years later - by one of the policemen on the roof that night. The same words had been shouted by an accomplice (also hanged) in a similar incident only twelve years earlier. Did the police and prosecutors fabricate evidence in the light of their knowledge of the earlier case? And even if Bentley said the phrase attributed to him, how should it be interpreted? As an incitement to kill, or as a plea to pass over the gun? In the haste to secure a guilty verdict (the trial lasted only two days) Bentley's mental state was never considered. The authorities were concerned to repress early signs of a post-war youth rebellion, while the murder of a 'bobby' in those days was an outrageous crime. Did the pressure for punishment persuade them to override the requirements of justice? (Empire Magazine 1991, Trow 1992).

importance as to attract such critical attentions. In any case, many qualitative studies are presented with insufficient discussion of methods to allow for replication should anyone be interested. Perhaps in this respect the student undertaking qualitative research for an examined thesis is in the 'privileged' position of having an audience as interested in the methods used as in the results produced.

At least where colleagues are collaborating on a research project, it can involve one analyst 'replicating' the results of another. Often, though, the qualitative analyst is a solitary figure, condemned to replicate his or her own findings. This is less of a paradox than it seems, if the replication in question involves new or additional data against which to judge the value of an initial result. Obviously one way of ensuring this is to obtain fresh data. This is not unreasonable in qualitative research, where data analysis may begin as soon as the first data is collected, rather than after data collection has been completed. An alternative procedure is to split the data, so that the results of a preliminary analysis with part of the data can then be replicated with the remainder. For example, the results from half the cases can be checked against the results of the other half. At least this goes some way towards testing whether one can replicate the original results.

An explanation of variations in results more acceptable than fabrication or falsification of evidence can be found in different interpretations of data. Here we shift from deliberate suppression of uncongenial evidence to unwitting neglect or misinterpretation of the data. In other words, we shift from the sins of commission to the sins of omission, which if morally more comfortable may still have equally damaging consequences for the analysis. The trouble is, of course, that we tend to see what we want to see, and hear what we want to hear. It is easy to be unduly influenced by the presumptions and prejudices with which we begin our analysis. As Miles and Huberman (1984) comment, rather cynically, 'most people are rotten scientists, relying heavily on pre-existing beliefs, and making bias-ridden judgements'. We tend to make more of the evidence that confirms our beliefs, and pay less attention to any evidence that contradicts them. This is a particular problem in qualitative analysis, because of the volume and complexity of the data. Because the data are voluminous, we have to be selective - and we can select out the data that doesn't suit. Because the data are complex, we have to rely more on imagination, insight and intuition – and we can quickly leap to the wrong conclusions.

As we search for illuminating singularities, we can easily become fixed on some striking but misleading images in the data. The most superficial impressions may carry conviction so long as they provide a plausible account of the data. And the more vivid the impression, the more plausible it may seem. Miles and Huberman describe 'plausibility' as the 'opiate' of the intellectual - perhaps rather unfairly, since anyone can fall for a plausible account. But 'plausibility' can be a seductive prize, the pursuit of

which distorts our analysis. Fact is stranger than fiction, precisely because fiction has to seem plausible to the reader - with none of the messy conflicts, contradictions, and irritating 'anomalies' of real life. For example, the script writers for the film 'Let Him Have It' based on the Bentley case changed certain facts to produce a more plausible account. Bentley's father was a university graduate, but in the film becomes a cockney. Bentley hardly knew Craig, but in the film they become buddies. Awkward facts become plausible fictions. Seduced by the allure of providing a plausible account, we may ourselves produce fictions which conveniently ignore the more awkward and less easily accommodated facts in our data.

There are several ways in which we can reduce the errors associated with neglecting data. Of these, probably the most important is to look for corroborating evidence. Just how much evidence does support our impressions? I think of this as the 'name three' gambit, because when my children claim that 'everyone has one', a favourite and effective response is to say 'name three.' The salience of some parts of the data may be out of all proportion to the evidence overall. If we can assess the weight of evidence underpinning our analysis, then we can at least make a critical assessment of the empirical scope of our insights and intuitions.

As we have seen, the computer can provide procedures for enumerating the degree of empirical support for the categories and connections we have identified in our analysis. This is playing the numbers game, but it would be foolish to discount such evidence as irrelevant simply because it is not properly 'qualitative'. Numbers can be a useful corrective to initial impressions; the point is not to discount them, but to recognize that they may not tell the whole story. Suppose, for example, that we have hit upon stereotyping as an illuminating aspect of humour, largely influenced perhaps by the preeminence of stereotypes in our initial encounter with the data. Does the evidence warrant the significance we may be inclined to attach to this category as a result of its dramatic impact in the early phases of our analysis? If the category turns out to have only marginal significance in the rest of the data, then this will emerge through an enumeration of the relevant databits. We may be able to assess the weight of evidence case by case, or in the data as a whole. The frequency with which we have assigned the category will indicate its empirical scope. If we do find that the scope of the category is surprisingly slight, then we may wish to reassess its significance for our analysis overall.

Lest this seem an unduly mechanical approach, I should add that we need to take account of the quality of the evidence, and of its conceptual significance, as well as its empirical scope. One reputable witness may be worth a dozen unreliable ones. The police testimony against Derek Bentley had greater weight than Craig's testimony, not just because there were more of them, but also because they were regarded, perhaps mistakenly, as more reliable witnesses. From a more dispassionate standpoint, we might

Corroborating evidence

argue that Craig had less to gain in supporting Bentley than the police had to gain in accusing him. We might also note a bias towards accepting the voice of authority, the solidarity and collaboration of the police in presenting the case, and the formal and public setting in which evidence was given – all factors which may encourage greater scepticism about the reliability of the police evidence. With the benefit of hindsight, we could also note other occasions in which police perjury has been instrumental in securing convictions. All these considerations reflect upon the 'quality' of the police evidence. Finally, we may want to accord greater weight to the testimony of the policeman who twenty years later admitted that Bentley had not spoken that night. Here we have an example where a lone voice may have more credibility than all the rest put together.

In corroborating evidence, therefore we need to think critically about the quality of the data (cf. Becker and Geer 1982). Did we observe an event at first hand, or hear about it second hand? Did we obtain the data unprompted, or in response to a question? I noted earlier the problems of relying on Vincent's account of events in his surgery. But much of the data we analyse is just what people have told us. Here are some of the questions we might ask of any observation.

Qualitative data is typically of uneven quality – and hence the importance of taking quality into account. If we have made all our observations ourselves, and made them repeatedly; and had the same observations confirmed by other, disinterested and unbiased and trustworthy observers, in neutral circumstances – we are probably not doing qualitative research.

#### Checking the quality of data

- Is it a product of our own observation, or a result of hearsay?
- Have any other people made or reported the same observation?
- In what circumstances was the observation made or reported?
- How reliable are those making or reporting the observation?
- · What motivations may have influenced how the observation was reported?
- What biases may have influenced how the observation was made or reported?

Suppose we were interested in Vincent's letters, not as an example of Woody Allen's humour, but as an account of his relationships with patients and other dentists. The evidence of these letters may give us some insight into Vincent's view of these relationships, but we would hesitate before accepting this as an accurate account. The letters themselves suggest that Vincent, a volatile, self-centred person given to sudden moods of elation or depression, may be a most unreliable witness. We would surely look for corroboration, perhaps in other letters written by Vincent himself, or in recollections of the patients and dentists he mentions, or in the accounts of other observers, before we drew any firm conclusions about the events which Vincent describes.

In assessing quality, we have to beware of our own biases. Do we tend to accept uncritically the word of authority – or are we perpetual sceptics who can never accept an explanation if it is proferred by the powers that be? Do we tend to pay more heed to our own sex, race, nationality or whatever, and suspect the word and motives of others? Are we making rational or emotional judgements? In criminal justice, the art of prosecuting or defending may turn more on swaying prejudices than confirming or disconfirming facts. For example, take the description of Bentley as 'an epileptic nineteen-year-old', a point given prominence in reviews of the case. Why include the information that Bentley was an epileptic? This is presumably intended to colour our judgement of the case, regardless of any relevance Bentley's epilepsy may or may not have for the facts at issue. In assessing quality, we must be careful to give due weight to evidence, and discount information which may influence our judgement even though it is not relevant to the case.

Apart from assessing the 'integrity' of the data, we can also check on whether and how far an observation has been supported by other observations. The support offered by other observations may be more persuasive if these are genuinely independent and there is no possibility of 'collaboration' between sources. Of course, we may be lucky to find such independent sources, though by building independent measures into our research design, we can improve our prospects of doing so considerably.

As well as the quality of our data, we may also want to take account of its conceptual significance. We can justify giving extra salience to part of the data in conceptual terms even if this is out of proportion to its empirical scope. There may be turning points in our analysis, provoked perhaps by a stray remark or a sudden revelation, which alter our whole conception of what is going on. When Vincent cuts off his ear, we don't start to search the data for similar examples! Yet this is an incident which casts all the preceding events in a very different light. The same may be true of an apparently happy marriage in which one of the partners suddenly leaves for another lover. The whole relationship may be reinterpreted in the light of a single event whose significance stretches backwards as well as forwards in time. Some events do merit more weight than others in our interpretations. However, like Liza Cody's detective, Anna Lee, we must be careful not to decide too soon in an investigation just what information will turn out to be important (Cody 1991).

Few would dispute that the allegation that Derek Bentley uttered the phrase 'Let him have it, Chris' was a point of key significance at his trial. While we may doubt the quality of the data, it would seem foolish to doubt its import. If Bentley spoke these words with the intent to incite, the case against him was cast iron. By comparison, other evidence seems to pale into insignificance. On the other hand, rather than simply accepting the obvious, we have to justify assigning conceptual significance to some parts

of the data and not others. Take the fact – uncontested – that Bentley gave himself up as soon as the would-be thiefs were cornered by the police. Perhaps the drama of the alleged statement eclipsed a point of equal if not greater significance. 'Actions speak louder than words' is an aphorism curiously neglected in this case. If Bentley had resisted arrest, the allegation that he incited violent resistance by Craig would be more convincing. But Bentley immediately gave himself up, an action at odds with then encouraging Craig to resist. We could make a case that the unambiguous and uncontested evidence that Bentley surrendered was more significant than the ambiguous and contested (but more dramatic) evidence about what he said after doing so.

This suggests another tack which we can pursue in seeking corroborative evidence. As well as examining the weight, quality and significance of the evidence in support, we can also look for inconsistent or conflicting evidence. The evidence that Bentley gave himself up is not consistent with and perhaps even contradicts the evidence that he encouraged Craig to resist. This is just the kind of innocuous data that we are inclined to overlook in the heat of the moment – the excitement of the chase and the thrill of the kill! Carried away by our inventions – or perhaps just relieved to have made some sense of the data – the last thing we want to do is undermine our own convictions. That's why defence is rarely entrusted to the prosecution! However, the hapless analyst who can only rely on his or her own resources, must make the best of it and accept the self-discipline required to do both jobs.

The computer can help a bit by making it easy to look for counter evidence. Instead of retrieving only those databits which support our analysis, we can also retrieve those which are inconsistent with or contradict it. We can produce negative evidence as easily as positive evidence. Suppose for example that we have mapped out the concurrence between incongruity and catharsis, and having collected some additional data our result now looks like the diagram in Figure 14.1.

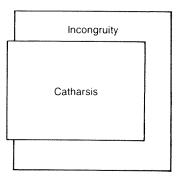


Figure 14.1 Concurrence between categories

Some of the data no longer fits our previous argument that incongruity is an indispensable element in cathartic humour. We can retrieve the databits using a boolean search of the form 'X NOT Y' ('Catharsis NOT incongruity') to pick up these counter examples and examine them. We may have to modify our earlier argument in the light of this data. Or we may find that without the catalytic ingredient supplied by incongruity, cathartic humour falls flat, thereby providing some further indirect support for our initial view. Exceptions do sometimes prove rules. At any rate, by focusing on exceptions, extremes, or negative examples, we can counter the inclination to look only for evidence that confirms our views.

The computer can also help us to confront data more effectively, by making it easy to analyse the data in different ways. We can do this by randomizing cases – where appropriate – so that we no longer allow an arbitrary order to dictate our path through the data. If we always start in the same place, our initial impressions will always be the same and as a result some observations will loom larger than others. We can reduce this bias by starting at random points or following selective rather than sequential paths through the data. Both these procedures can help offset the tendency to concentrate attention on some parts of the data at the expense of others.

#### **Encouraging confrontation with the data**

- · Enumerate the amount of data
- Evaluate the quality of the evidence
- · Assess the conceptual significance of the data
- Look for exceptions, extreme or negative examples
- · Follow different pathways through the data

The procedures we can follow to militate against neglecting data are relatively straightforward. All this really requires is a certain amount of self-discipline. The computer makes it easy to handle the mechanical aspects. By contrast, the problem of misinterpreting our data is much harder to deal with.

Even if we have confronted all the evidence, we may still 'misinterpret' our data. We can see the words 'let him have it' as either an encouragement to pass over the gun, or as an incitement to use it. If one of these interpretations is correct, the other is wrong. Supposing Bentley spoke those words, what did he mean by them? Even if Bentley said he meant Craig to hand over the gun, can we believe him? We cannot know for sure, because this interpretation was clearly so much more in his own interest than the other. We would expect Bentley to lie if necessary to protect himself from the gallows.

In interpreting this case, we are liable to make one of two errors. If we believe Bentley told the truth, we may make an error in accepting his

explanation. If we believe Bentley lied, we may make an error in rejecting his explanation. Whichever interpretation we choose, we run the risk of error. Suppose we decide to reduce the risk of error by assuming that Bentley would lie to protect his own interest, though not otherwise. In trying to reduce the probability of error in one direction, we merely increase it in another. Once we suspect that Bentley might lie to protect himself, we increase the risk that we will mistakenly reject his account.

If the interpretation we choose is at odds with what actually happened, we 'misinterpret' the data. When does an interpretation become a 'misinterpretation? There may be some reluctance to admit the possibility of 'misinterpreting' data, on the grounds that there is no such thing as an 'objective' account - we'll never know what really happened. All we have are different interpretations, and these are inevitably subjective. This assumes that each interpretation may have its own merits, but none can claim superiority over the rest - one interpretation is as good as another. The problem with this approach is that it eliminates the possibility of error, and therefore of making and learning from our mistakes. It eliminates progress and reduces social research to a useless exercise in story telling. While we do want to 'tell a story' about our data, it is not just any story, but one which we can claim is valid. My dictionary defines 'valid' as 'sound', 'defensible', and 'well-grounded' and despite the more technical interpretations of validity in social science, this is as good a definition as any. A valid account is one which can be defended as sound because it is well-grounded conceptually and empirically. If it doesn't make sense, then it cannot be valid. If it fails to account for the data, then it cannot be valid.

To produce a valid account, we need to be objective. This refers to a process, of which a valid interpretation is the product. Being objective does not mean being omniscient – it doesn't mean we can know 'what really happened.' It means accepting the canons which govern rational inquiry as a basis for realizing conclusions which are reasonable. It means taking account of evidence without forcing it to conform to one's own wishes and prejudices, and accepting the possibility of error. Errors in analysis matter, even if their consequences may be less dramatic than errors in the criminal justice.

How does the criminal justice process deal with the possibility of error? One way is to ensure that where there is doubt, different interpretations of the data are considered. Hence the role of the prosecution and the defence. A second is to suspend judgement as long as possible, and at least until each of these interpretations has been fully considered. A third way is to accept one interpretation – 'guilty' – in preference to another – 'innocent' – only if it is beyond reasonable doubt.

These are three related ways in which we can minimize the risk of error and misinterpretation of the evidence. One is to entertain rival interpretations of the data. Another is to suspend judgement as long as possible. A

third is to refrain from judging between rival interpretations until we can chose one 'beyond reasonable doubt'. And in line with the presumption of innocence in criminal justice, the test of being 'beyond reasonable doubt' should be more stringent for those interpretations with the most significant theoretical or practical consequences.

Entertaining different explanations is a way of keeping an open mind. As I said earlier, an open mind is not an empty head. Some analysts recommend an approach which seems to come dangerously close to fitting the latter description. It is suggested that the best approach to evidence is to avoid developing ideas 'prematurely', until one is thoroughly familiar with all the evidence. This *tabula rasa* approach is dangerous because it leaves the analyst prone to all manner of prejudices and preconceptions, which are no less powerful for remaining subliminal. It is better to make ideas and values explicit rather than leaving them implicit and pretending that they are not there. The effort to devise alternative accounts is a more effective safeguard against preconceptions than trying to maintain a conceptual vacuum, which one's prevailing prejudices may rapidly fill.

The *tabula rasa* approach reminds me of the story of a detective who was following a suspect along a street at night, and the suspect dropped something in the gutter at a dark point in the road. Finding this action suspicious and suspecting that some vital evidence had been dispensed with, the detective decided to look for it. However, it was too dark to see anything at that point, so he moved further down the road to where there was a street-lamp, and looked for the evidence there! The detective is like an analyst who insists on using preconceived ideas to analyse his data. He will never find what he is looking for. It would be far better to get down on his hands and knees and feel around in the dark. Indeed, it might even be better to have no light at all, so that his eyes can adjust to the darkness, rather than be blinded by an adjacent light which prevents him from developing a 'night vision'.

In other words, if we rely on preconceived ideas, we may look for our evidence in the wrong place. One can feel the force of this story, but before we decide to abandon light (i.e. ideas) altogether, there is another option to consider, in which the detective takes out a torch and immediately finds the evidence he is looking for! The problem here is not the light, but the fact that it is fixed, and fixed in the wrong place. The detective grubbing around in the dark has a better chance of finding the evidence, but all the same his chances are not that high. The most effective way of finding what we are looking for, is not to dispense with light, but to make sure we can use our light flexibility and direct it where it is most useful. And that means using rather than dispensing with ideas.

Our first task, then, is to ensure that we consider alternative interpretations. We need, therefore, to devise alternative accounts. How successfully we can do this depends on our imagination. In assessing the Bentley case,

we have so far considered only two interpretations - either Bentley denied any intention to incite, and he told the truth; or Bentley denied any intention to incite, but was lying. Let us look at some alternative interpretations.

Suppose Bentley wanted to play the hero, but lost his nerve at the last moment. He gave himself up, and told Craig to hand over the gun. But afterwards, he wanted to claim his part in the murder of the policeman. In this case, he might lie and claim his words were an incitement to violence, when they were nothing of the sort. We might be more inclined to doubt him if he claimed he was inciting Craig than if he denied it.

Now suppose Bentley was torn between giving himself up and fighting it out. Suppose part of him wanted to resist arrest, but another part of him wanted to give in. These inner contradictions found expression in a form of words which expressed both Bentley's conflicting wishes simultaneously. Neither at the time, nor in retrospect, could Bentley decide clearly what he meant by them. The ambiguity was the thing.

Now suppose Bentley, with a mental age of 11, was incapable of knowing one way or another what the words meant. Perhaps he just parrotted a phrase which was part of a 'make-believe' game he was playing, without distinguishing fact from fantasy and recognizing the potentially serious consequences of what he was doing - or saying.

Finally, suppose the police invented these words, in order to nail Bentley for the crime. They chose an exhortation which was deliberately ambiguous, because morally this was more comfortable than attributing to Bentley something unambiguous, such as 'Shoot!' The words 'let him have it' let the police off the hook (a little) because it was the interpretation by the court which condemned Bentley, rather than the words themselves.

We have developed - invented - a number of different interpretations, and by no means exhausted all the possibilities. Conspiracy theorists have suggested, for example, that there was a third person on the roof, who shouted the fatal phrase; or that the police shot their own colleague, and tried to cover up by shifting the blame. Even if these interpretations seem fanciful, we still have to consider the evidence before we can dismiss them. For example, evidence that Craig's gun was fired, and that the bullet from that gun killed PC Miles, might rule out the possibility of the police covering up for their own mistake. In fact the bullet from Craig's gun was never found. Therefore we cannot rule out this interpretation entirely.

While we may entertain some interpretations only to immediately discount them, we should beware of dismissing out of hand alternative interpretations which are reasonable (rather than fanciful) and consistent with the evidence. In Bentley's case, the defence was accorded only twenty seconds in the judge's summing up for the jury. In the interest of fair play, we would expect as much time to be devoted to the defence's case as to the prosecution's. Once again, the analyst has another role to don, this time to emulate the judge in summing up the evidence on either side. This summing up cannot be done if a single interpretation of the evidence has already been preselected.

Identifying different interpretations of the data may seem a daunting task, but in fact it is an integral part of the process of analysis. In annotating the data, we pinpoint various possibilities for analysis. In categorizing the data, we make judgements between different ways of classifying the data. In linking data, we make judgements about how different bits of data are related. In splitting and splicing categories, we make judgements about how categories can be related or refined. In connecting categories, and in using maps and matrices, we explore alternative ways in which the data can be integrated. Throughout our analysis, we are playing around with ideas, trying out possibilities, making judgements. The analysis can be presented as a route through a series of options to arrive at a particular conclusion or set of conclusions.

Figure 14.2 shows two different possible routes through the analysis, each arriving at different conclusions. We could think of these two routes as two cycles through the data.

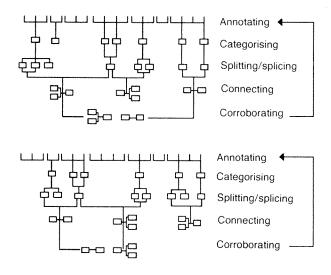


Figure 14.2 Two routes through the data, arriving at different results

Qualitative analysis is essentially an iterative process, involving repeated returns to earlier phases of the analysis as evidence becomes more organized and ideas are clarified. It is not a 'one shot' affair where by some lucky chance we can expect hit bull's eye on our first attempt. We need to fire several arrows, and see which if any land nearest to our target. In effect, we try out alternative accounts, and consider which of these accounts comes

closest to describing or explaining our data. Corroborating evidence is the 'final' stage of this process, but to corroborate evidence we have to retrace our route through the previous stages.

We shall consider in a moment the kind of criteria which may influence us in weeding out weaker interpretations and narrowing our choice to those which make most sense of our data.

Just as the criminal justice process culminates in a decision about guilt or innocence, analysis is supposed to result in some conclusions. In both cases, we do not require these conclusions to be certain. It is enough that they should be 'beyond reasonable doubt'. We cannot 'verify' facts or explanations in the way that we can verify the outcome of an arithmetic sum. We are dealing with probabilities rather than certainties - no matter how certain we feel that we are right. No fact or explanation is incontrovertible. The most we can hope for is to present the best possible account of our data. Even this may not account for all the facts. We may have to settle for an explanation which accounts for most of them.

In statistics, we can measure 'reasonable doubt' in terms of some agreed standard of probability. We may decide that if the probability of making an observation by chance is less than 1 in 100 or 1 in 1,000, then it is reasonable to assume that the observation is not simply random. But what standards can we employ in analysing qualitative data? There is no obvious answer to this question, though there may be some pointers we can note.

The more complex our interpretation, the less convincing it may seem. We tend to prefer simple explanations over more complex ones - not just because they are easier to grasp, but also because they are more powerful. A complex explanation is more likely to be case-specific, and less likely to apply to other data. A complex explanation is also less likely to fit readily into other ideas and theories we may have. As well as being more powerful, a simple explanation is less likely to go wrong. Like machinery, the fewer the moving parts, the less likely it is that our explanation will break down. Also it is less likely to require constant maintenance. Simplicity can be seductive for all these reasons, though we should be wary lest we fall too readily for its appeal

A related point concerns credibility. Complex explanations can suffer a 'credibility gap' as we are required to accept more and more parts in order to justify the whole. On the other hand, when a simple explanation stretches our credulity too far, we may opt for a more complex account. Take the business of Craig's bullet, for example. Suppose the bullet could easily have been lost in the labyrinth structures of the warehouse roof. Then the simple explanation that the bullet was lost may be more credible than the complex explanation, that Craig never fired the bullet at all and there was a police cover-up. On the other hand, suppose it is almost impossible to believe that the bullet could have been lost. Then we may be inclined to a more complex account, because the simple explanation that

the bullet was lost strains our credulity too far.

Another consideration is the internal coherence of our explanations. Does the machinery actually work? Are our explanations internally consistent? Do they make sense overall? How many conflicts and contradictions do they accommodate or resolve? And how much mess do they make as a by-product? We are all familiar with the 'explanation' which raises more questions than it answers. Despite claims to the contrary, we usually prefer explanations which reduce rather than increase the number of issues which remain unresolved. At any rate, we expect some improvement in our ability to handle old problems, even if in resolving these we pose a set of fresh questions.

We have considered earlier the problems of neglecting evidence. Another factor influencing our choice may be the empirical scope and completeness of different explanations. How well do they account for the evidence at our disposal? How many loose ends do they tie up? Is our explanation sufficiently wide in scope to include most of the data? As we have seen, empirical scope need not be a decisive issue for any one part of our analysis. But overall, our explanations will be more convincing if they include the bulk of our data.

In choosing between rival explanations, we may also be influenced by their conceptual significance for current ideas and contemporary theories. Here again, our prejudices may incline us in one direction rather than another. The arch-critic may find irresistible the exciting prospect of debunking established theory. The arch-conformist may look for comfortable explanations which can fit into established concepts and explanations.

Another factor which may influence our judgement is the practical significance of our explanations. In social science, the ultimate test of any explanation is practical, and any explanation which has practical also has moral implications (Giarelli 1988). If one explanation promises to have a more acceptable practical import than another, then other things being equal we may be more inclined to adopt it. Practical import cannot be separated, of course, from value judgements, since we have to consider who will benefit (or suffer) and why. In the Bentley case, the 'incitement' explanation suited the authorities who were keen to punish the murder of a policeman, but could not hang Craig because he was too young. The practical significance for the authorities was the deterrence through exemplary punishment of violent crime. For the defendant, the practical significance of the 'incitement' explanation was death. This conflict of interests is recognized in the criminal justice process, which attempts to afford through the initial presumption of innocence a measure of protection for the defendant. Though perhaps honoured in the breach in Bentley's case, the presumption of innocence is a way of protecting individuals from potential injustice. The equivalent in research terms is to advance a 'null hypothesis' that no relationship exists, unless we show

Corroborating evidence

otherwise 'beyond reasonable doubt'. Research results can also harm individuals. Where this is the case, we may also apply a more stringent requirement about the level of reasonable doubt we can tolerate. Practical concerns may therefore make us insist on a higher rather than a lower level of confidence in our conclusions.

#### Choosing between rival explanations

- Which explanation is simpler?
- · Which explanation is more credible?
- Which explanation is more internally coherent?
- Which explanation has greater empirical scope?
- Which explanation has the greater conceptual import?
- Which explanation has the more acceptable practical import?

Naturally, the answers to these questions may not be clear or consistent, and the analyst – like the jurist – may be left to choose in terms of a balance of conflicting probabilities. While we may never be certain that our judgement is correct, at least we can reduce the chances of error.

Fortunately, in this task of arbitrating between alternative explanations, our lonely analyst can finally appeal to others for assistance. Pursuing our analogy with the process of criminal justice, we have cast our analyst in the role of prosecuting and defending lawyers, and even of the judge in summing up. But there is no need for the analyst to play the part of the jury. The jury provides an audience before whom the whole courtroom drama is performed, and it has the responsibility for finally judging between the conflicting accounts. For the qualitative analyst, the equivalent of the jurors may be colleagues, supervisors, academic rivals, external examiners, research contractors, policymakers or even the subjects themselves. Any research has to address a variety of audiences which will ultimately determine the value of the analysis.

Since the analysis ultimately has to convince others, there may be some virtue in involving others in the analysis. Here we depart from the formal procedures of the courtroom, where the jury is condemned to silence until delivering a final verdict. In qualitative analysis we may want to involve our 'jury' in earlier stages of the analysis, and not simply leave it to evaluate the final product. Our subjects may be able to comment on the authenticity of our accounts. Our colleagues may be able to suggest different interpretations. Supervisors may suggest inadequacies in the coherence of our explanations. Research contractors may refocus our attention on the issues of greatest theoretical import. Policy-makers may emphasize the practical significance of under-developed aspects of the analysis.

This traffic is never one-way, and it may pose problems as well as giving guidance to the analyst. Different constituencies have different interests, and are likely to give guidance accordingly. By trying to please everyone,

we can end up pleasing no one. Ultimately, we have to remain responsible for the analysis – within any constraints imposed by academic requirements or contractual arrangements – and treat advice sought from other sources as precisely that: only advice.

Suppose we sought advice from the 'subjects' of our research, Victoria Wood or Woody Allen, about our analysis of humour. No doubt if they could spare us the time, we would learn a great deal from what they have to say. It would be interesting to learn whether they would acknowledge the role of incongruity and catharsis in humour, for example. There may be aspects of their humour which we have missed altogether. Their own accounts of their work may be very illuminating. However, suppose that they are also very critical of our analysis. As creative people, this is not how they think of humour at all. In fact, they may argue that to analyse humour in this way may impede creativity. It is therefore a useless and pointless exercise. Such an unsympathetic response from the subjects of our research would be quite reasonable. Our analysis is not geared to their interests and experience as creative writers.

While we can learn from the subjects of our research, and modify our analysis accordingly, we cannot allow them to become its final arbiters. Even if our account makes no sense to the subjects of our research, even if they fail to recognize the relevance of our interpretations, even if they reject the value of our explanations, we are entitled to persevere with our analysis. The validity of our account does not depend on acceptance by those who are subject of it. Indeed, a critical account which reinterprets social processes and events may be deliberately set against the current preconceptions of those who are subject to the research. Take gender stereotyping for example. The social scientist concerned to identify gender stereotypes in humour cannot allow subjects the final say over whether and how they utilize stereotypes. The 'emancipatory' role of research indeed requires the social scientists to say things which the subjects of the research may reject. There is no 'emancipation' involved in telling people what they already know, or confirming what they already believe.

I have emphasized the 'critical' role of the analyst, because it is sometimes suggested that a good test of an analysis is whether or not it is credible to the subjects of the research. This may be true, but it is not the whole truth. In so far as qualitative analysis aims only to describe the experiences and perspectives of subjects of the research, this is a fair point. For example, if we want to describe how Woody Allen sees his own work, then we should have to do so in terms which Woody Allen can recognize. If Woody Allen rejects our description, then we have no alternative than to revise it in the light of his criticisms. However, in so far as our qualitative analysis goes beyond description, to provide an explanation of Woody Allen's humour, it need no longer rely on describing humour in his terms.

While the analyst remains responsible for 'summing up' the analysis, and

in the process may weigh the evidence, outline alternative interpretations and suggest certain conclusions can be drawn, it is the 'jury' which ultimately assesses the value and credibility of the analysis. In the policymaking context, many a research report reputedly lies on the bottom of a dusty shelf, its contents, no matter how apparently worthwhile to the researchers, happily ignored by those who commissioned the research. Nor is publication any guarantee of attention. Our jury may be composed of a variety of different audiences, and it is a sad but inescapable fact of life that their response to our analysis may be dictated as much by its style as its substance. We may be reluctant to ape the lawyer who 'plays to the gallery' to win his case. But it would be equally unreasonable to refuse to present our case as persuasively as possible. The problems of presenting our analysis form the subject of next chapter.