Why and How to Teach Proof

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Abstract

In the 30 years since the publication of 'Taking Facts Seriously', that paper has, in Twining's own words, become 'quite well known but has made almost no impact'. This article re-examines the reasons for integrating factual analysis and proof into evidence courses, and offers ideas for how this can be done, including a discussion of assessment and the use of visual mapping.

I Introduction

It is now more than 30 years since William Twining first published his paper 'Taking Facts Seriously' arguing that courses in Evidence should incorporate the teaching of skills in factual analysis or proof.[1] In that time, the paper has, in Twining's own words, become 'quite well known but has made almost no impact'.[2] As a teacher at one of the few institutions where the paper *has* made a significant impact, I find this slightly mystifying: the arguments for taking a proof-oriented approach to the law of evidence seem unanswerable, and, having taken such an approach for more than a decade now, I can concur with Twining's declaration that it works'.[3] This article explores why and how this might be so.

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1 William Twining 'Taking Facts Seriously' (1984) 34 *Journal of Legal Education* 22; reprinted as Chapter 2 in Twining, *Rethinking Evidence: Exploratory Essays* (Basil Blackwell, 1990).

2 William Twining, 'Taking Facts Seriously—Again', in Paul Roberts and Mike Redmayne (eds), *Innovations in Evidence and Proof: Integrating Theory, Research and Teaching* (Hart 2007) 65; earlier versions of the paper were published in (2005) 55 *Journal of Legal Education* 360, and in William Twining, *Rethinking Evidence: Exploratory Essays* (Cambridge University Press, 2nd ed 2006).

3 Twining, above n 2, 79, n 61.

II Why Teach Proof?

The argument is essentially twofold.[4] First, the proof-oriented approach requires students to develop skills in factual analysis, including reasoning skills, which are crucial to legal practice, transferable to other contexts, and which are not generally taught anywhere else in the law school curriculum.

Second, the proof-oriented approach to evidence locates the rules of evidence in the context in which they actually operate; that is, in the context of legal proceedings in which the parties are attempting to prove or disprove a case. Anchoring the rules in this context helps students comprehend their purpose and operation, in the same way that a learner driver's abstract understanding of the rules of the road is likely to be enlivened by the experience of having to apply them while driving. Like traffic rules, the rules of evidence seem to make more sense when integrated with the activity which it is their purpose to regulate, namely the proof of facts. Divorced from that context, the law of evidence can seem like a disparate rag-bag of rules with little in common. Anchored in the litigation context, on the other hand, the various rules can instead seem like the tools in a mechanic's garage: each designed to solve a different problem arising from the same activity, and therefore complementary rather than incoherent.

The adoption of a proof-oriented approach need not be at the expense of the kinds of syllabus revisions suggested by Roberts,[5] whether it be a taxonomical extension of the law of evidence to pre-trial proceedings, the division of the subject into civil and criminal streams, a broadening of the 'other', to which the contemporary law of evidence is compared, or an examination of the epistemological and moral assumptions and concerns which underlie and inform much of our law of evidence. Indeed, I would argue that whatever the particular issues associated with the use of evidence that a particular Evidence syllabus chooses to explore, the students' understanding of those issues is likely to be deepened and enhanced by developing their skills in factual analysis and giving them the experience of having to work out how to actually prove disputed facts in an adversarial context. Even a relatively orthodox critique of judicial decisions on the law of evidence

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4 The arguments are much more fully rehearsed in Twining, above n 1 and n 2 and Andrew Palmer, 'A Proof-oriented Model of Evidence Teaching' (2002) 13 *Legal Education Review* 109.

5 Paul Roberts, 'Rethinking the Law of Evidence: A Twenty-First Century Agenda for Teaching and Research', in Paul Roberts and Mike Redmayne (eds), *Innovations in Evidence and Proof: Integrating Theory, Research and Teaching* (Hart Publishing, 2007) 32–55; see the comments of Twining, above n 2, 77–83.

or of the rules themselves depends on an ability to accurately identify and outline the factual issues to which the decision or rule relates.[6]

III How to Assess Proof

As with any subject, the assessment is what really determines the curriculum. No matter how much you talk about proof, unless skills of factual analysis are assessed students will not bother to develop them. The assessment could, of course, take the form of actually running a trial,[7] but at The University of Melbourne ('Melbourne') our students write an Advice on Evidence based on a brief of evidence in a legal proceeding. This clearly has advantages for us in terms of marking efficiency — trials take a long time to run — but it also reflects my own view (as both a practising barrister and a teacher of advocacy) that while a thorough evidential analysis is a necessary pre-condition to effective advocacy, advocacy skills require considerable further development before they can be properly assessed. The brief is invariably based on a criminal prosecution rather than a civil one, and there are two reasons for this: first, students (like the general public) tend to find criminal cases more interesting than civil cases; and secondly, the rules of evidence engaged by the criminal context are more complete and more complex.[8] And we usually (but not always) instruct them to prosecute rather than to defend on the basis that this requires them to bear the onus of proving something.

Students complete the examination over a long weekend and are generally asked to analyse the brief of evidence as if writing an advice for the Director of Public Prosecutions that:

1. Sets out the factual theory upon which they will rely.

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6 See Kathy Mack, 'Teaching Evidence: Inference, Proof and Diversity' (2000) 11 *Legal Education Review* 57; Christine Boyle, 'A Principled Approach to Relevance: the Cheshire Cat in Canada', in Roberts and Redmayne, above n 5, ch 3; Mike Redmayne 'Analysing Evidence Case Law', in Roberts and Redmayne, above n 5, ch 4.

7 See, for example, Anthony Hopkins, 'Teaching Evidence Law within the Framework of a Trial: Relating Theory to Practice As Students Take to Their Feet and Take Responsibility for the Trial Narrative" (2009) 2 *Journal of the Australasian Law Teachers Association* 173.

8 I generally use briefs of evidence, either based on real cases that I have either appeared in myself, or obtained from friends and colleagues in the profession; these are scanned, edited and 'anonymised'. I favour briefs where most of the evidence is circumstantial and where there is a range of evidence such as witness statements, expert reports, records of interview, call charge records and telephone intercepts. I generally avoid sexual offences. Sometimes I will simplify the case; other times I will add or modify items of evidence so as to raise particular rules of evidence. Jeremy Gans tends to obtain briefs of evidence in more newsworthy cases, or to develop his own briefs of evidence based on media reports about such cases. I feel obliged to confess that for both of us the process is a fairly time-consuming one.

2. Briefly explains how this factual theory satisfies the elements of the legal case.[9]

3. Identifies the real issues in the case.

4. Explains how they will go about proving the factual propositions which are likely to be the subject of genuine dispute in the trial.[10]

5. Analyses the admissibility of any items of evidence in relation to which objection might reasonably be anticipated (and sometimes identifies any special trial directions — such as those applying to identification evidence, or to inferences from circumstantial evidence — which the evidence may require).[11]

6. Indicates, in light of the above, the likelihood of conviction.

The marks are divided evenly between proof and admissibility. Assessment of this kind requires students to develop skills of factual analysis and locates the exclusionary rules in the context in which they are actually applied. Moreover, understanding how particular items of evidence fit into the overall case facilitates the proper application of those rules — such as the hearsay rule, opinion rule and tendency and coincidence rules — that depend on how the evidence is being used.

It seems that over the years, the evidence take-home examination has become for students something of a milestone in their passage through the law school — anticipated, sometimes feared but in hindsight usually enjoyed. Most of the students rise to the challenge of completing a piece of work that reflects the kinds of tasks they might be required to undertake in a litigation practice, and some of the work submitted is quite extraordinary in its detail and complexity.[12] Beyond that, students now seem to accept that this is how Evidence should be

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9 See Andrew Palmer *Proof: How to Analyse Evidence in Preparation for Trial* (Law Book Company, 2nd ed 2010), 43–4, which draws a distinction between these two aspects of the theory of the case.

10 At this stage of their Advice, the task is to be approached by the students as though the only rule of evidence is the requirement of relevance.

11 At Melbourne, this aspect of the assessment is often limited by the fact that judicial warnings, such as *Longman* directions (*Longman v The Queen* (1989) 168 CLR 79; *Evidence Act 2008* (Vic) s 165B), or those that must be given in respect of lies (eg *Edwards v The Queen* (1993) 178 CLR 193), do not form a very significant part of the Melbourne Law curriculum, particularly compared to the main exclusionary rules. In a curriculum where greater emphasis is placed on such rules the assessment could easily be adapted to take account of this.

12 Numerous examples of past exams in *Evidence and Proof*, together with several sample student answers to each exam, can be accessed via Faculty of Law, University of Melbourne, *Sample Analyses*, (08 August 2011) Melbourne Law School <http://www.law.unimelb.edu.au /go/evidence/sample-analyses/> See also, Palmer above n 9, Appendix.

taught. Indeed, I have had numerous conversations with students in which they have expressed surprise at the idea that the subject might be taught or assessed in any other way. The methods adopted have come to be seen as inherent in the nature of the subject matter, rather than as reflecting choices made by their teachers.

IV How to Teach Proof

So how do you actually teach proof? We can start by observing that using evidence to draw inferences or construct arguments is something that all of us — teachers, students, the general public — already know how to do. I open the blinds in the morning and see that the ground outside is wet; I infer that it must have rained overnight. I come home from a weekend away with my wife to find numerous empty beer bottles in the recycling bin and conclude that my teenager has had some sort of 'gathering' in our absence. I go to the film *Inception*[13] with a friend and afterwards we argue about whether or not Cobb was still in a dream at the end, citing various items of evidence pointing one way or the other.

So in teaching factual analysis we are building on skills that our students already possess to some degree, simply by virtue of being human and having lived for some time. But we can teach our students to make evidence-based arguments that are more transparent, better structured, more thorough, more persuasive and that are appropriate to the context of adversarial litigation. Several articles have been published describing courses that seek to integrate proof into the teaching of evidence.[14] At Melbourne, the *Evidence and Proof* course that my colleague Jeremy Gans teaches is based entirely on a documentary series called *The Staircase*,[15] which follows a North Carolina murder trial from the outset of the investigation to the jury's verdict. The content of my course is completely different, but not its objectives: both sets of students take the same examination and we both use the same textbooks.[16]

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13 *Inception* (Directed by Christopher Nolan, Warner Brothers Pictures, 2010).

14 See Twining, above n 2, 81–2 n 65, discussing a course at the University of London; Andrew Ligertwood, 'Evidence and the Practical Process of Proof', in Roberts and Redmayne, above n 2, 253–9, discussing a course at The University of Adelaide; Hopkins, above n 7, describing a course at the University of Canberra; and Palmer, above n 4 and "Note to Evidence teachers" in Palmer, above n 9, 165–7, discussing the *Evidence and Proof* courses at Melbourne Law School.

15 *The Staircase* (Directed by Jean-Xavier de Lestrade, Maha Productions, 2005).

16 For the proof part of the course, we use Palmer, *Proof: How to Analyse Evidence in Preparation for Trial*, above n 9, which, as its subtitle indicates, is fundamentally a book about method. For the evidence part of the course, we use Jeremy Gans and Andrew Palmer, *Uniform Evidence* (Oxford University Press, 2010).

In my classes I start by asking students to analyse something fairly simple, such as a photograph. For example, I show them a photograph that appears to have been taken in the United States in the 1950s and which depicts a white baby being held by a black woman. I ask them to put forward an argument about the relationship between the two figures. Of course most students would almost immediately infer that the woman was the child's nanny, but they would do so without being fully aware of the reasoning process that had led them to reach this conclusion. By having to articulate arguments for their conclusion, however, students are forced to become aware of the ingredients of evidential arguments. At the microcosmic level, these are essentially data or evidence (the baby looks relaxed and comfortable with the woman), which combine with generalisations (babies are usually only relaxed and comfortable with adults with whom they are familiar) to provide the basis for inferences or conclusions (the baby is familiar with the woman).

Students also learn to appreciate the different roles played by positive arguments such as that above, compared with arguments designed to eliminate some of the possibilities, such as an argument that the woman is not the mother of the baby. To argue for such a conclusion, students have to bring into their conscious awareness the kinds of unconscious generalisations that underlie much of our everyday reasoning, such as that white babies do not (usually) have black mothers. Once such generalisations are articulated, it becomes possible to identify the possible exceptions to such generalisations (the baby could be an albino, or the woman might be the adoptive mother of the baby), and then the means of eliminating such possibilities (the baby's eyes and eyebrows appear to be dark in colour, the eyes and eyebrows of albinos are not, etc).

In rebutting the possibility that the woman is the adoptive mother of the baby, students can also start to see that many of the generalisations on which we unconsciously rely are not universal human truths, but are contingent on matters such as time and place and culture and gender (such as that in the United States in the 1950s a black woman is unlikely to have been permitted to adopt a white baby). This can provide a basis for critiquing such generalisations and hopefully leads to an important insight: people often disagree about the relevance of particular items of evidence because they have different experiences of the world. This can affect the reliability of inferences drawn from human behaviour, such as how a person behaves when approached by police or the demeanour of a witness in court.

Through this process of analysing a number of photographs students begin to develop skills in basic inferential reasoning and in the structuring of relatively simple arguments; and it is extraordinary how rich and complex even the most apparently simple inferential task can

become once a group of law students starts to look at it closely. In the second class, we move on to something much more complex, designed to develop skills in organising, marshalling and analysing masses of evidence from disparate sources. At the moment, I am giving them a bundle of original documents relating to the crash of Egypt Air Flight 990 on 31 October 1999, and asking them to come up with a theory of what happened. In other words, they have to come up with a theory of the case, and then defend it. The two main possibilities are an unidentified mechanical failure, or the deliberate actions of the co-pilot of the relief crew, Captain Gamil el-Batouty. The material students are provided with ranges from transcripts of the cockpit voice recorder and the black box, to reports into the behaviour and psychology of Captain el-Batouty.

It is impossible to even begin addressing such a question without first constructing a detailed chronology, which is one of the main points of the exercise. The preparation of a chronology is probably the single-most important method of marshalling evidence as part of preparation for trial. There are several reasons for this. First, the chronology is a means of drawing all of the disparate information in the brief together into a single document. It is, thus, a means of managing a mass of information. For this reason, an effective chronology not only has to record the date and time of significant events, it must also record the source of the information. It can also be used to record any areas of conflict or inconsistency between witnesses and other evidence. Second, creating a sequence of events — which is what a chronology is — allows us to begin to understand the relationships between events, and to identify any gaps in the information available to us. Third, that sequence of events is the bones around which we can construct a theory of the case, which is essentially a narrative, or sequence of events in which the events are causally-related.

But the Egypt Air dossier is also used as an exercise in how to structure a complex argument based on a body of evidence from a range of sources that point in different directions. A student's theory of the case has to be able to account for all of this evidence, as well as having other desirable characteristics, including that it be consistent with instructions, legally significant, plausible, simple, consistent, clear, flexible and have evidential support.[17] The students are, thus, from the very beginning of the course introduced to the idea of the theory of the case as an organising principle in coherent trial preparation, and given the tools they will need to both develop and evaluate one. In my experience, students naturally tend to divide between those who want to prosecute and those who want to defend, and one of the main advantages of requiring students to develop and

[17] See Palmer, above n 9, ch 5, particularly 46–51.

defend a theory in class is that the dialectic of classroom debate tends to expose the weaknesses or inconsistencies in almost any theory.

The second exercise in this class is based on a newspaper article about the trial of David Eastman for the 1989 murder of Colin Winchester, an Assistant Commissioner of the Australian Federal Police, and the highest-ranking police officer ever to have been murdered in Australia. The exercise is both one in macro-analysis—the construction of the argument as a whole, which depends on a whole range of arguments about motive, opportunity and so forth — and micro-analysis — the construction of the many and varied smaller arguments that make up this larger argument.[18] A third proof class consolidates this learning, tackling further problems in which students are required both to develop theories of the case and to construct detailed inferential arguments.

In the assessment we usually require students to adopt the standpoint of the prosecutor. The main reason for this is that in my experience, as someone who has both prosecuted and defended criminal trials, defence theories are usually reactive and often incomplete: that is, they typically seek to exploit weak points in the prosecution theory rather than offering a positive and comprehensive theory about what happened. But a prosecutor who has only focused on their own theory is liable to find it unravelling before their eyes once the trial commences: anticipating the likely defence theories and points of attack is therefore an essential part of the development of the prosecution case. The last question in the assessment — where students are required to reflect on the prospects of conviction — is also designed to force students to step back from their theory and look at it with a degree of objectivity.

After the proof classes we move on to the rules of evidence, but always retain a primary focus on the fundamental questions: what is this evidence being used to prove and how does it prove it? For that reason, neither Jeremy Gans nor I place much emphasis on the reading of judgments or judicial reasoning about rules. By the time students come to take *Evidence and Proof*, they must inevitably have taken several subjects in which they have been taught how to read a case. There seems little point in teaching them the same skills again: they will have either absorbed them by now, or they never will.[19] Instead we

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[18] Palmer, above n 9, Appendix, contains a partial analysis of the case.

[19] When the JD was first introduced at Melbourne, *Evidence and Proof* was taught in the first trimester as one of the introductory subjects. This actually worked very well, but my justification for not taking a case-oriented approach under that structure was that I could safely assume that students would be taught those skills in *later* subjects.

focus on the application of the rules of evidence to diverse factual situations,[20] and the development of arguments about admissibility.

V Visual Mapping

I have so far refrained from mentioning anything to do with the visual mapping of arguments. This was to avoid reinforcing the common but erroneous belief that the teaching of proof *requires* the teaching of Wigmorean charting: I agree with Roberts 'that one does not have to be a Wigmorean chart methodist to take facts seriously'.[21] As it happens, however, I do teach visual argument mapping from the first class, but I would never dream of using Wigmore's chart methods,[22] even in the simplified form developed by Anderson, Schum and Twining.[23] Indeed, I would be afraid that if I showed my students one of Wigmore's charts it might permanently alienate them from the delights of factual analysis, just as it might if I tried to demonstrate the pleasure and convenience of car travel by taking them for a ride in a Model T-Ford.[24] Instead, both Jeremy and I use modern software designed specifically for the purpose of argument mapping;[25] but there is no requirement that students submit visual maps of their

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[20] I tend to take these problems from reported cases, often leading cases; Jeremy Gans, as noted above, takes them from *The Staircase*, above n 15.

[21] Cf Roberts, above n 5, 26. Nor need one teach Bayes' Theorem: if the theorem simply means that evidence is relevant if it affects the probability of the existence of the facts in issue — as seems to be suggested by James Franklin, James Franklin, 'The Objective Conceptualisation of Proof and Reference Class Problems' (2011) 33 *Sydney Law Review* 545 — then it adds nothing to the test of relevance in s 55(1) of the Uniform Evidence Acts. And to the extent that it purports to provide a method for actually calculating those probabilities it faces the insuperable hurdle that the data that would need to be fed into the Theorem to make those calculations simply does not exist: see Mike Redmayne, 'Objective Probability and the Assessment of Evidence' (2003) 2 *Law, Probability and Risk* 275.

[22] See John Henry Wigmore, *The Science of Judicial Proof: As Given by Logic, Psychology, and General Experience and Illustrated in Judicial Trials* (Little, Brown and Co, 3rd ed, 1937). Wigmore only ever published two complete evidential analyses: *Commonwealth v Umilian,* at 757–8 and *Hatchett v Commonwealth*, at 759–60. Each chart has to be read in conjunction with a separate 'key list' of factual propositions which correspond to the numbers in the chart. This is one of the main drawbacks of Wigmore's method, as it makes the charts extremely difficult to follow.

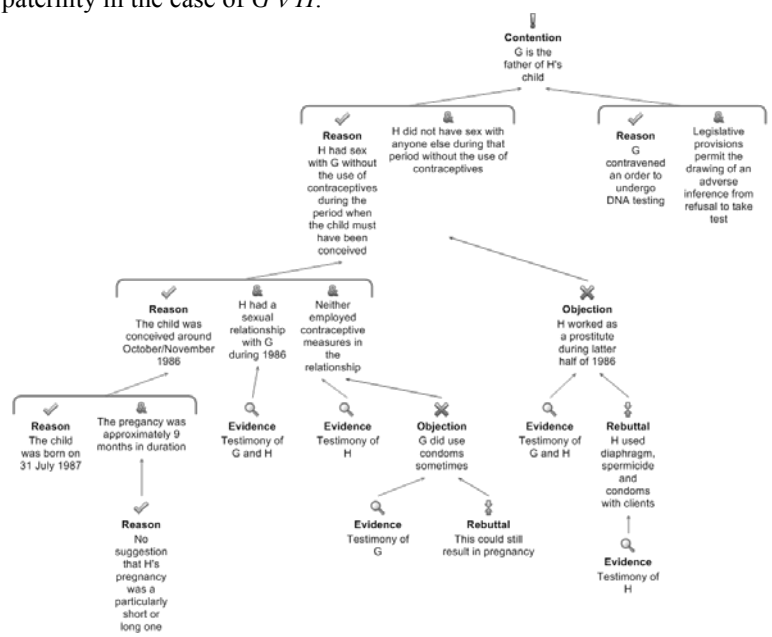
[23] Terence Anderson, David Schum, and William Twining, *Analysis of Evidence* (Cambridge University Press, 2nd ed, 2005). Anderson, Schum and Twining, at 134, use a much simplified palette of symbols compared to that suggested by Wigmore, above n 20, 751–3, but do not address the problem of having a separate chart and key list. See eg, the chart of an investigation, 137–9.

[24] For the same reason, I have chosen not to include any Wigmorean charts in this article.

[25] Such as Rationale or bCisive, both of which are available at Austhink, *Software for visual thinking, better teamwork and communication*, Austhink, <www.austhink.com>, and are explained by their chief developer in Tim van Gelder, 'The rationale for Rationale™' (2007) 6 *Law, Probability and Risk* 23.

arguments and many if not most students choose to set out their arguments in prose (albeit a highly structured and logical prose).

That said, the software is both easy to use and capable of capturing a variety of different logical relationships between evidence and proposition,[26] and it can also help in the explanation of some of the exclusionary rules of evidence.[27] It would take up too much space to include the detailed analyses completed by our students in both charts and prose, but many examples can be readily accessed online.[28] Instead, set out following is a simple chart relating to the inference of paternity in the case of *G v H*:[29]



At the top of the chart is the 'contention'; the fact in issue to which the chart relates. The chart then identifies two main 'reasons' for finding that fact to exist. Each, according to the chart, makes the contention more likely to exist; this positive probative relationship is indicated by a tick and by the use (if the chart were printed in colour) of the colour green. A negative probative relationship, on the other hand — that is, a factual proposition that makes the proposition to which it

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26 Charting, and the various logical relationships discussed below, are dealt with at length in Palmer , above n 9, ch 6–7 and Appendix.

27 Ibid ch 8.

28 See Faculty of Law, above n 12.

29 (1994) 181 CLR 387. The chart is incomplete in the sense that the logic has not been fully unpacked and the sources for all of the evidence have not been identified, but a reasonably complete chart of something even as straightforward as the woman and baby photograph can struggle to fit on to an A3 page.

relates less likely — is indicated by the use of the word 'objection', a cross and the colour red. And a proposition that makes an 'objection' less likely is termed 'rebuttal', and has its own rather strange symbol, but is also in red to indicate its effect on the objection to which it relates.

Each of the main reasons in the chart for *G v H* above is based on two separate factual propositions, and each of these separate propositions is necessary to make the other probative. This means they are 'compound' reasons: the paired factual propositions are only relevant when they are 'linked' or in 'conjunction' (as indicated by the use of an ampersand on the second of the propositions). Similarly, the argument used to prove that 'H had sex with G without the use of contraceptives during the period when the child must have been conceived' is a compound reason based on three 'linked' propositions, each of which must be proved in order to prove this fact. The two main reasons, on the other hand, are independently probative, or 'convergent': a tribunal of fact could reject one while accepting the other. Finally, at the base of each of the chains of inferences the label 'evidence' is used to identify a source for the factual proposition from which the inferences above are drawn. Multiple sources indicate that there is corroboration; and 'counter-evidence', or contradictory sources, can also be included to indicate that there is a conflict of evidence.

In order to construct one of these charts properly, students must, therefore, learn to understand a variety of logical relationships that can exist between the different items of evidence, inferences and other factual propositions upon which proof of their case will depend. To chart all of this accurately requires clear thinking.

VI Conclusion

As evidence teachers, we are the inheritors of a subject that has traditionally been dominated by the discussion of exclusionary rules and judicial decisions about those rules. Many of the rules are inherently fascinating; many raise interesting issues of political morality or justice or epistemology that we can explore. So the traditional focus of our subject is not without its attractions. But if we restrict ourselves to that traditional focus, while we bring interesting and important content to the law curriculum, we fail to add anything qualitatively different to the rest of the degree. Teaching proof gives us the opportunity to add something different: skills in thinking and in organising masses of information that are not taught elsewhere, and which will be useful to our students whether or not they choose to pursue a career in the law. And, as this article has sought to show, integrating proof into an evidence course can be a relatively straightforward process that enhances, rather than displaces, our treatment of the topics that have traditionally dominated the subject.