Forgery and forensics – or, how not to forge a will and get away with it.

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Introduction

Will forgery is not as uncommon as one might think or hope. Westlaw notes at least a dozen decisions in the last decade from England and Wales, and more from Scotland, involving allegations of forgery of a will, the majority of which resulted in the allegation being proven. For many of us working in the field of succession, it is the area of criminal law we are most likely to come into contact with. After mental capacity experts, and valuers, forensic document examiners are perhaps the experts most frequently encountered in our probate cases.

The point of this paper is to show that there is more to forensic document examination than handwriting analysis. There are a large number of techniques that can be used to cast doubt on the stated provenance of a document. I am not an expert forensic document examiner, but certain cases I have recently been involved in – and which are ongoing – have illustrated the range of tests now available. I would suggest there is also an encouraging move away from the old-fashioned art of graphology towards modern, more scientific tests.

Legal approach

The fact that a will has been forged entails that it does not comply with Section 9 of the Wills Act 1837 (as amended). That requires that a will is in writing and signed by the testator. So unless it is one of those rare cases in which another person signed the will on the testator's behalf, in his presence and by his direction, if the testator did not put pen to paper – and subject to theories about electronic signatures on wills – the will is invalid.

The requirement for two attesting witnesses also to sign the will provides another sense in which a will may be forged: their signatures may not be genuine, although this would be an unusual approach.

More likely, the attesting witnesses themselves do sign their own names, but have not witnessed the testator sign and do not themselves sign in the presence of the testator. I have been involved in a few cases in which this has happened inadvertently (in one case the beneficiary had settled a 1975 Act claim before the



defect of execution came to light), but at least one where it was done fraudulently, the witnesses having been duped into signing the testator's will when they thought they were witnessing something else – the beneficiary's will: *Re Whelen; RNIDP and ors v Turner* [2015] EWHC 3301, in which I advised at an early stage.

Forgery, like any sort of fraud is a serious allegation. Indeed, it is a crime under s.1 of the Forgery and Counterfeiting Act 1981 to "make a false instrument, with the intention that he or another shall use it to induce somebody to accept it as genuine, and by reason of so accepting it to do or not to do some act to his own or any other person's prejudice". There are also separate crimes of knowingly copying a false instrument, to knowingly using a false instrument, with the same intention. The maximum sentence on indictment is 10 years imprisonment.

When these issues are raised in a criminal case, of course, the criminal standard of proof applies. But in civil proceedings, the standard of proof is the balance of probabilities, and no higher than that. But in weighing the evidence against the balance of probabilities, one has to factor in the inherent improbability of such serious wrongdoing: see *Re H (minors)* [1996] A.C. 563, citing Ungoed-Thomas J in *Re Dellow* [1964] 1 W.L.R. 451: "The more serious the allegation the more cogent is the evidence required to overcome the unlikelihood of what is alleged and thus to prove it". The unlikelihood will depend on all the circumstances, of course.

Regina v Gillian Clemo [2014] EWCA Civ 1525 ... and case 'X'

I want now to move onto the various forensic techniques that are out there. As I go through them I am going to refer to two cases. One is a decided case, in the public domain. I was not involved in this aspect of the case, though I have been working on the estate administration side of matters since these forensic aspects have been dealt with. The other is an ongoing case, and is really the inspiration for this talk, so I'm going to call it case X. As we discuss the techniques, I'll mention when any apply to case X, so that at the end you can form your own theory as to whether the will in case X may be genuine or forged, and if forged, how? But be careful – there may be red herrings.

The difference in the standard of proof is one of the things that makes the decided case, of R v Clemo, so surprising. In outline, the facts are these:

- Chris John was a successful estate agent in Cardiff. He had an ex-wife, Helen, with whom he had had a daughter Isabelle, and a new partner, Gillian Clemo.
- Initially he was thought to have died in 2008 intestate, and all would go to his daughter. There was a dispute as to who would administer the estate on Isabelle's behalf, Helen the ex-wife, or Gillian and Mr John's sisters.
- Then Helen discovered that her divorce had only proceeded as far as a decree nisi, but no decree absolute was made. Thus she was entitled to a grant, and to share in the estate with Isabelle.



- Almost immediately a will appeared leaving the home to Helen, but everything else to Isabelle and naming his sister Melissa as executor. Gillian was one of the witnesses to it.
- Shortly after that, a codicil was produced naming Helen as executor.
- Helen admitted forging the codicil and was cautioned.
- But Helen alleged that the will was forged by Gillian (even though she did not benefit under it, at least not directly). The police investigated, and charged Gillian under s.3 of using a false instrument.
- Gillian Clemo was convicted in May 2011 and fined £1000 (presumably a low sentence because she did not stand to gain). She tried to appeal, but without success in January 2012.
- Helen John then applied for letters of administration. But the judge, HHJ Milwyn Jarman QC, was not impressed.
- In due course, the will was admitted to probate, and Gillian Clemo's conviction was quashed on appeal, in July 2014.

How did this incredible reversal of fortune come about? Let's start by looking at handwriting evidence.

Handwriting analysis

My experience of handwriting evidence is that it is plagued with difficulties. The idea is that an expert can closely examine the handwriting or signature of the deceased on the disputed document, and look for differences and similarities as compared with known examples. The expert will be looking at letter formation, fluency and spontaneity, and pen pressure and line quality to determine whether it is a genuine signature of the person it purports to be, or a 'simulation'. I suppose they use the neutral terms simulation as there may be innocent reasons for copying someone's signature. Almost invariably, the expert will require the original disputed document to inspect. So there may have to be an application to court to have it released. (I don't include that as a drawback, because almost all testing involves having the original.)

Drawbacks

I think there are three main drawbacks with handwriting evidence:

1) Comparables

Any expert worth their salt will want to see a large number of undisputed original examples of the testator's handwriting, particularly I think in the case of a signature. In some cases it can be hard to assemble a large number of undisputed original signatures.



2) Effects of ill health

Wills are often made by the unwell or infirm. Muscle weakness, arthritis, medication, symptoms of shaking can all affect the appearance of a signature, as well as just the effect of being propped up in bed rather than sitting at a desk.

3) Reliability

The discipline of handwriting analysis accepts that it is more of an art than a science. Hence they tend to use a seven or even nine-point scale to represent their findings, between conclusive or strong evidence that it is the signature of the relevant person at one end, through moderate and weak, no evidence either way in the middle, then weak evidence that it is a simulation, to moderate, strong and conclusive evidence that it is so.

Even so, my experience of handwriting experts is that not all are equal. In one case I had, each side had their own apparently reputable handwriting expert; one saying there was strong evidence that it was a simulation, the other saying there was strong evidence that it was genuine. The fact that two supposed experts can disagree quite so fundamentally must cast doubt on the whole field of expertise. Graphologists are not necessarily scientists and may have no formal training. Forensic document examiners with a scientific training and experience within an organisation such as the police are probably to be preferred.

And so it was with Gillian Clemo. Dr Hilary Pritchard, expert for the prosecution, said at trial – and maintained on appeal – that there was "conclusive" evidence that the signature of both the testator Chris John and the witness other then Gillian Clemo were simulated. For the defence, the well-known expert Robert Radley said that there was "very strong" evidence that the signature was genuine. Then on appeal, Dr Audrey Giles lent her voice to Robert Radley's, and also said that there was "very strong" evidence that it was genuine.

Dr Pritchard was presumably just mistaken. But there are worse examples: an episode of Panorama on the BBC two years ago showed a graphologist discarding unhelpful comparables, and a forensic document examiner who ignored a confession of forgery by his client and instead reported strong evidence that the document was genuine.

Signature dating

With sufficient comparables, however, quite useful findings can be made. An expert may be able to observe subtle changes in the formation of letters over the years, and perhaps a point in time at which the testator's penmanship began to decline due to old age. He may therefore be able to conclude with more or less certainty that although the signature of the testator on the will was a genuine one, it was not written at the time the will was supposed to have been executed, but earlier or later.



In case X, our expert had signatures from several decades, and opined with a "moderate, bordering on strong" degree of certainty that the signature on the will dated from a decade or more before the will was supposed to be made.

ESDA – Electrostatic detection apparatus

A technique that many forensic document examiners will apply almost automatically (even if one does not ask for it) is ESDA – electrostatic detection apparatus – which allows the examiner to look for the imprints in the document of other things which may have written on a sheet of paper resting on top of the examined document – almost like invisible carbon paper.

It was this technique which ruined a case of mine, not a probate case, but one in which my client relied on some wills as evidence that the deceased had intended to give the property to my client. He had two wills, an earlier one and a later one, one of which was on formal Indian legal notepaper, and had described in his evidence how they came to be made. The ESDA analysis showed that the earlier will had been signed resting on top of the later will, which of course shouldn't have been in existence at the time. This conflicted with his version of events. The case settled rapidly.

This technique can be useful for detecting simulations, by showing up 'practice runs' done on the same pad as the final forged will. Care must be taken before drawing conclusions, of course. There may be any number of explanations for the imprints. This was a key issue in *Clemo*. A major plank of the prosecution case was that there were the imprints of more signatures of the deceased and the other witness on the disputed will, which they said showed Ms Clemo had been practising the signatures. But the chief piece of new evidence on appeal was another copy of the same will coming to light, matching the imprints. This showed that in fact Mr John had executed his will in duplicate or even triplicate, and explained the imprints.

And in *Whelen* the ESDA lift was key, as it showed that the beneficiary's will the witnesses thought they were witnessing was underneath the will of the deceased when they signed it, supporting the conclusion that it had been craftily arranged to get a signature.

ESDA can also be used where the suspicion is that the forger has used a piece of paper signed in blank, to show that is was one of a number of pages signed at once, again as in case X.

However, the technique is very delicate! Rough handling of the document or moisture can destroy this sort of evidence. And the plates resulting cannot easily be transported.

Paper



The focus in cases is usually on the writing, but the paper can be every bit as important.

Paper availability

Sometimes particular makes of paper can be identified. This could be by analysis of the paper's composition, to match it to a particular brand. Or it could be simply noticing a watermark; people often use heavier, more expensive branded paper for important documents such as wills. That paper may or may not have been available at the purported date of the document in question.

In case X, our expert noted that paper with the particular watermark as on the will had not been produced for more than a decade before the purported date of the will.

Cutting

Close inspection of the edges of a piece of paper can show that the paper has been cut. The page can also be measured to see if it conforms to the standard sizes of A3, A4, foolscap etc. If it does in one dimension but not the other, this could show it has been cut down. This is obviously slightly suspicious, and may indicate that a header or footer of the page has been cut away.

The will in case X was the right width for A4, but was 60mm too short and had signs of cutting on the top and bottom edges.

Obliteration and alteration – fibre disturbance

Under magnification it can be possible to see whether text has been erased or scraped off from disturbance to the fibres of the page.

Wear and tear, folding

The condition of a will might indicate that it is older or younger than it purports to be.

Insertion of pages

A will might be altered by keeping the final sheet with the signatures, but replacing earlier pages.

Signs that the stapling has been tampered with might be obvious. Or the paper might not all match the paper of the final sheet.

Word-processing

Another clue that one or more pages have been inserted would be if the wordprocessing is different. This can be quite subtle. Less common – very difficult to do convincingly – but also possible, would be additional wording added on one sheet. This can involve all sort of analysis:

Font, font size

A change of font or font size from one paragraph to the next, or between the pages in the will, would be a bit of a give away.



Font availability

Some fonts have been around longer than others. An expert should be able to say if the font used had actually been designed at the purported date of the questioned will. A sensible forger will use a common font like Times New Roman or Arial.

Alignment, spacing

Different word-processor set-ups may default to different spacing settings. This means the space between lines, and between paragraphs might be different if text or a page has been inserted. Also the margins of the page might be different. Is there a page number and is it in the right place? It can be checked by placing a transparent grid over the will. Case X – no problem here.

Typographical layout, punctuation

Perhaps more relevant to documents other than wills, but does the document look like the testator's (or the supposed draftsman's)? How is it phrased? How good is the spelling and grammar – too good or not good enough? How is punctuation used? In Case X, the will is fairly illiterate, but then the alleged forger has accepted that he had typed the will out, on the testator's instruction.

Use of precedents

The use of a precedent can be a clue. In a case of mine, a precedent with a slightly unusual phrasing had been used, which matched that from an online will-writing website. Internet archive material showed that this precedent had first appeared some time *after* the purported date of the will.

Printing

Printer characteristics

Different printers may produce slightly different results, though perhaps not as idiosyncratic as old typewriters, according to the old whodunnits.

In Case X, for example, there is a sign of a worn drum as the text fades away at the right of the page. This suggests a fairly elderly printer. If there are other documents produced by the alleged forger with a similar characteristic, that could be one indication that his printer was used.

Modern laser printers and photocopiers also put almost invisible codes onto the page, called CPS (counterfeit protection system) codes. They use tiny spots of the yellow toner, so that they are not visible to the naked eye, but can be seen with a filter and magnification. If one could decode them, they could not only identify the printer used, but also tell you when the document was printed, to the nearest quarter hour. However, only governments have access to these codes! Failing that, they could still be used to provide support for a proposition that the same printer was used for one document as another, or more realistically to disprove that a document was printed on the testator's own computer.



Order in which toner and ink applied

Under magnification, it may be possible to tell confirm whether the toner of the printed part of the will went on the page before the inks of the signature, as one would expect of a valid will, or afterwards.

This is relatively uncontroversial technique when the ink line intersects with the printed area. With ballpoint pens, the pressure of the ball crushes toner particles underneath, causing them to discolour (a bronzing effect). The ink is not seen when the toner is fused on top. A toner particle away from the rest of the text may make a little crater in the ink. Even then, it can be difficult without exceptionally strong magnification if the ink of the signature is the same colour as the toner.

But it may also be possible to work out which came first when the ink signatures do not intersect with the printed text. This is because of toner scatter – stray toner particles, invisible to the naked eye which get fused to the paper when the paper passes through the fuser. If you are lucky there will be a few within the ink of the signature. This seems to be still relatively controversial as a technique. Can one reliably distinguish toner from household dust; what sort of microscope should be used, etc? But in Case X, we have fairly clear images of toner particles fused on top of the ink of the testator's signature.

Ink analysis

Perhaps the most expensive sort of test are ink analysis. These will require ink samples to be taken from the document being tested – they will use a hollow needle to extract 5 or 6 plugs of inky paper about ½ mm in diameter, leaving small perforations. It is therefore a semi-destructive technique – the document will still be easily legible afterwards, but the permission of the court is required. Moreover, the experts who do these techniques appear to be based in USA. So again, the court will need to be assured of the safe custody of the questioned document and the need for this sort of test. And of course it is expensive (20% more expensive since the referendum, given exchange rates): around \$6,000 per signature.

Ink availability

Different inks have different chemical compositions. Testing allows the expert to compare the composition of the ink against commercially produced inks. So it may be that the ink used was not in production at the ostensible time of the will's execution.

In case X, the inks used were common Bic formulations.

Ink aging

Certain techniques allow a forensic chemist to estimate the age of the ink. Inks tend to contain dyes, solvents and resins. Solvents evaporate slowly over time, faster initially, and then more gradually. The ink may still be wet, quite literally. A common solvent with a fairly slow rate of evaporation is 2-phenoxyethanol (PE).

By measuring how fast it evaporates in test conditions, using Gas Chromatography-Mass Spectrometry, one can estimate how long it has been on the page before the test. But this only works up to about 6 months. After that time, the levels of PE are too low to detect any meaningful change. Certain resins may also hold clues. The rate of hardening of resins can be measured, in some cases up to 2 years, but more usually 6 months is the limit.

This all means that ink aging testing is extremely time critical. The moment a suspect will is produced, and it seems as thought this might be the sort of case which would benefit from testing, one has to get it tested straight away, and the longer the delay, the less reliable the results.

In case X, both PE and resin tests were inconclusive, despite having got the will tested within a few months of its first production by the other side.

Ink fading

The dyes in inks can be analysed using Thin-Layer Chromatography (TLC). This is just like the filter paper experiments we used to do at school, separating the dye into its component parts. One can then simply look at the results to see what the component parts of the dye are, and in what proportions.

Many dyes are not light-fast; they are subject to fading, which is caused by the decomposition of the dye under light (demethylation).

One such dye in common use is Crystal Violet, CV, which decomposes into Tetramethy-pararosaniline (TMR). Both those components can be detected in the TLC. Most if not all dyes start with a significantly higher proportion of CV to TMR. So CV>TMR = not faded. But when it is exposed to light for a significant period, the CV reduces and TMR increases. So TMR>CV = faded. One can therefore tell whether a particular ink has been exposed to light for a prolonger period or not.

However, this technique cannot be used to date documents. It all depends on the conditions under which the document is stored – it is principally a function of the number of photons that land on the ink, but also the ambient temperature etc. – so it makes a huge difference if it is in a filing cabinet or on a window-sill, if it is in London or Florida.

But it could be used to compare fading between two signatures on the same document. In Case X, the witnesses' signatures were CV>>TMR. But the testator's signature was faded - TMR>>CV. The question is how far this is a legitimate comparison when two different inks are used.

Other forensic techniques

There are of course other forensic tests which can be done. A document may have the fingerprints of the forger on it. But be warned that testing for fingerprints could make the ESDA lift impossible.

Witness evidence

Sometimes, however, the evidence of witnesses is the only way a will fraud can be proved, as in *Re Whelen*. The witnesses were sure they had never seen Ms Whelen, but they had thought they had witnessed Mrs Turner's own will. Beware, of course, of the strong presumption of due execution, illustrated by cases such as *Sherrington v Sherrington*, and *Channon v Perkins*.



Was the testator able to make the will on the date suggested in the manner suggested? Or was she insensible in hospital at the time?

Could the witnesses have witnessed it, or were they elsewhere? The evidence of witnesses was the basis on which another of my former clients, Victoria Kendrew, was convicted of forging a will of her late partner Peter Farquharson, and sentenced to 3 ½ years in prison, where the witnesses who were cajoled into witnessing it and providing statements, were found to have been in Surrey on the day the will was supposedly executed in Devon. They admitted their part in the fraud, and were sentenced to 6 months suspended for 2 years, with 150 hours of community service: http://www.bbc.co.uk/news/uk-england-devon-30553846.

In case X, the other side may be his own worst witness. He claims to have forgotten about the will, for some 3 years after the death, despite having taken instructions for it and drafted it himself, as well as arranging for its execution.

Conclusion

How to forge a will and get away with it? The short and obvious answer is don't even try. Even if you use commonly available ink, and paper, and a sufficiently ubiquitous and anonymous printer, and wait 2 years before producing it, accurately mimic the testator's style and then get sufficiently good at forging the signature (without resting on top of the paper you eventually use as the will), the chances are your attesting witnesses will spill the beans.

As for Case X, we must wait and see – the matter is due for trial later this month.



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Alex is recommended in legal directories Chambers, Legal 500 and Who's Who Legal. "He was really impressive, fabulous to work with and responds with almost lightning speed to requests for assistance. He is happy to roll his sleeves up and get stuck into cross examination"

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