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How Shakespeare got a little help from his friends

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Promoting shows in the Edinburgh Festival Fringe (Getty Images)

Transcript

Robyn Williams: So, it's time to visit William Shakespeare, at last, to see how he got a little help from his friends. Gabriel Egan is Professor of Shakespearean Studies at the university and he applies the patterns of common words and even the gaps between those words, characteristic of how we use them, to gain clues about how other authors may have assisted in the playwriting.

First of all, some of the words in the English language that recur very, very often, what are they, about ten of them?

Gabriel Egan: Well, if you take words in the order that they appear by frequency, then you've got this peak at the top with 'the' and 'and' and then it's a long tail, and where you chop it off is up to you, but I would say if you take the hundred most common words, that's about half of everything we say and write, so that's a good chunk of the language, is just those 100 words used over and over again.

Robyn Williams: It just so happens that in Leicester where we are, where your university is, is also a place where they've got the DNA fingerprinting being pioneered, which is a pattern. You've taken the sort of pattern of those words you've mentioned, which have common occurrence and also associations with each other, a kind of print of what the author tends to do. And you've compared Shakespeare's works with how many others?

Gabriel Egan: Well, many others in total numbers of plays, but we tend to focus on those dramatists from Shakespeare's time for which we have a substantial canon. We really can't say much about authorship if a person has only written one play, like Thomas Nash's one play. Thomas Kyd hasn't got many plays that we are sure are his. So there's a lot of plays but not that many canons because someone like Shakespeare has 40-odd plays in his canon, and the important thing is what canon you compare with which canon because you are looking for the style that is common to all the plays by one human being.

Robyn Williams: And when you do this analysis, are you pretty confident that what you are showing is a print that is reliable and gives you an indication of what cooperation there has

been?

Gabriel Egan: Well, the analogy with DNA is quite interesting because certain things are common to all studies of this kind, which is that you haven't got all of the evidence, you are working with partial evidence. When DNA is recovered from a crime scene, it's often a fragment of DNA. When a fingerprint is recovered, it's often a bit. And there's two different kinds of questions you can ask. You can say does this print belong to this person, and that's actually harder to answer than could this print not come from this person? If you find a pattern of swirls in a fingerprint which match nothing on any of the ten fingers of your suspect, then your suspect didn't do it. That's a stronger logical position than saying, well, this bit of a swirl here matches that part on his second finger, because there may be other people who have that small match as well. So when you are excluding candidates you are always in a stronger position, always more confident in what you're doing when you say it couldn't be so and so rather than it could be so-and-so.

But as for the confidence, it's about how much of the data you've actually got and it's about probabilities. But we can distinguish between the candidates that are out there that exist whose works we know and say who is more or less likely to have written something, and sometimes you get up to the 80%, 90% probability, in that range, and you think I'm really quite certain about this. The important thing to bear in mind is that how good your test is isn't a matter of faith or subjectivity, you can analyse the power of your test, you can use tests you've come up with on cases of known authorship and quantify how good a test it is.

Robyn Williams: Well, here's an author of 40 plays, and what sort of pattern did you find? Some plays co-authored, some plays exclusive to Shakespeare or what?

Gabriel Egan: Well, you have to start the assumption that some of them are exclusively by Shakespeare, because if you thought that perhaps all of them are co-authored, you've got no, as it were, ground truth to build from. You've got to say here is his pure unadulterated personal idiosyncratic style, and there are lots of plays we think that's pretty much certainly the case.

Robyn Williams: Such as?

Gabriel Egan: Well, we think *Hamlet* is certainly all Shakespeare, we think *Antony and Cleopatra* is all Shakespeare, *King Lear*. No one has ever made any plausible claim for the co-authorship of the central body of Shakespeare's work. We have always thought that perhaps some of the plays at the beginning of his career were co-authored and we knew for certainty that some at the end of his career were co-authored. So we choose from the middle, plays that no one has ever suspected aren't solely by him, and we use that as our ground truth and then say if that really is Shakespeare, let's test how these other plays look like that play or unlike that play.

Robyn Williams: And which ones do you think are pretty well without doubt written by, say, Marlowe? Which are the plays that have been co-authored in that way?

Gabriel Egan: We are pretty certain now that Marlowe had a hand in all three of the *Henry VI* plays, so part one, part two and part three of *King Henry VI* has very clear signs of Christopher Marlowe's writing. Of course we don't know how their writing came together. We don't know, for example, what we have is a play written by Shakespeare and Marlowe discussing openly that they are going to collaborate on a play, or did Marlowe write a play, he dies in 1593, leaves behind a script which then Shakespeare works upon and so puts some Shakespeare into it. We can't easily distinguish between those hypotheses.

There is no reason to suppose he didn't actively collaborate because later on in his career he certainly actively collaborated in the sense of sitting down with a writer and discussing who's going to do which bit. But with the early stuff there was more than one way that a play could end up having two or three persons' writing in it. So Marlowe certainly in the *Henry VIs*, we are very confident about *Timon of Athens*, we are very confident about John Fletcher in *Henry VIII* and in *The Two Noble Kinsmen*, very confident about George Peele writing the first act of *Titus Andronicus*. I think pretty much everyone is now fairly confident that Shakespeare wrote the best bit of *Sir Thomas More*.

Robyn Williams: I don't suppose there's any problem particularly with the mechanics of writing, in other words the mistakes and the misprints in the original documents?

Gabriel Egan: Well, that is tricky. We have plays for which there exists more than one printing in his lifetime, and they can vary quite widely. So the first edition of *Hamlet*, for example, has lines that people simply wouldn't recognise, famously...well, you complete the quotation: 'To be or not to be...'

Robyn Williams: That is the question. Whether tis nobler in the mind to face the arrows and slings of fortune...and so on, by facing them and overcoming them et cetera.

Gabriel Egan: Yes, that's the famous second edition version, not the first edition. The first edition says: 'To be or not to be, aye, there is the point.' So it's very unfamiliar writing, and that's true of a lot of plays. Let me give you another one. Complete this, also from *Hamlet* actually: 'Never a borrower nor a lender...'

Robyn Williams: ...be.

Gabriel Egan: Yes, that's one possibility. In his lifetime it was also: 'Never a borrower nor a lender, boy,' because it's a father talking to his son, it's Polonius talking to Laertes, and it's 'boy'.

Robyn Williams: How interesting.

Gabriel Egan: And in fact if you get the most recent Arden Shakespeare edition, that is the line you will read: 'Never a borrower nor a lender, boy.' They think that actually is the correct reading for the edition they are using to base their modern edition on, and other editions exist. So there are alternative versions of plays. And in the *New Oxford Shakespeare*, which is the big landmark edition that Oxford University Press is producing, we are actually working right now on the alternative versions of the Shakespeare plays people already know. So in one version of *King Lear* and there's a whole scene not in another version of *King Lear*. And you could try to make a modern edition by combining the two versions, but we think actually you need to preserve the integrity of each version. If Shakespeare revised a play, you really want to show the before and after states, and we think that's the case with *Hamlet* and with *King Lear* and with a few other plays actually, we think Shakespeare changed his mind. And perhaps these plays were not quite always in motion but were much more mobile than we've assumed because in many cases we've only got one printed addition of an early play. Where we have more than one, including not just Shakespeare's works but also with, say, Ben Jonson's plays, *Every Man in His Humour*, for example, the first edition and second edition are set in different places, characters have different names and so on. And we think maybe a lot of drama was like that, it was mobile rather than fixed texts.

Robyn Williams: Now, it's reasonably well-known, I think it's secure, that one of the analyses of the novels of Iris Murdoch show that in her last novel she had distinct changes to her writing style and these indicated a paucity of range of vocabulary and the onset of Alzheimer's, and it would indicate that during a lifetime of writing obviously the habits change. Shakespeare lived only 52 years, so it wasn't necessarily such a long span, but could some of this analysis be evidence of the ageing process perhaps?

Gabriel Egan: Well yes, we do have, in the case of Shakespeare, an interesting sample of a writer changing habits across about two decades of writing. So he starts in the late 1580s, early 1590s and goes on to about 1612, 1613, and we can detect across those two-and-a-half decades or so some changes in his personal style. It seems to be the effect of being in London, that is he is a rural boy, he's from a small market town in Warwickshire just south of Birmingham, and that place has a distinct idiolect, it's not just an accident but certain words are distinct to that area. And as in modern Britain, the capital seems to be a place of linguistic innovation. So, new ways of saying things start first in the capital and spread out through the country. So in that sense Shakespeare was behind the times when he was a young man who moved to London. And what we notice is that his language changes, he gets more up-to-date. Under the influence of younger men, and London men in particular who have the new ways of speaking, he stops using 'thou', 'hadst', and more uses 'you'. So there are linguistic features of his style that seemed to show him catching up with where London is because that's where he works and possibly lived. We don't know where he lived but he was working in London and he seems to be picking up the young-speak, as it were, from fellow dramatists.

Robyn Williams: In this analysis, you know the phrase 'unweaving the rainbow', if you unweave the rainbow and just give a physics analysis of it, does it destroy the wonder, the

beauty of the piece? In other words, do you get fading interest in Shakespeare because you are looking at all the numbers and the graphs?

Gabriel Egan: I find the opposite actually, it returns us to how extraordinary this writing is. If we think, as many people have assumed, that Shakespeare's genius lay in his vocabulary, his range of words, then these methods show that we were mistaken, he did not have a larger vocabulary than anybody else, in fact he didn't have a larger vocabulary than you. He had an average vocabulary. It's not simply the range of words he's using, it's how he's deploying those words. And he is clearly capable of finding the phrase that has endured, that people have thought encapsulates something about human feelings.

I was struck only the other day by the new King of England, Charles III, saying of his mother: 'Peaceful sleep, may flights of angels sing thee to thy rest,' which is a line from *Hamlet*, it's Horatio's line to the dying Hamlet. Shakespeare has this unerring knack of finding the phrase that people, centuries later, feel captures their feelings, and it's not simply in the choice of words. There were no special words in that phrase 'flights of angels sing thee to thy rest' no

Shakespeare didn't write all the plays of Shakespeare. There were collaborators, especially in the early and later works. Gabriel Egan says Shakespeare didn't use a particularly large vocabulary. It was how the words were used which made him stand out - the combination of words. In his courses, Gabriel Egan teaches computational approaches to literary-historical textual analysis. He says computational analysis returns us to the mystery of how Shakespeare came up with combinations of words to create phrases which encapsulated feelings shared by all and which have endured for four hundred years.

Guest

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