

Originality And Education*

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Introduction To Originality

What does originality mean, particularly in the work of students and staff? How do we recognise it? How do we develop it? I shall explore these and related questions. This is a personal exploration. I hope you will find it useful to accompany me at least part of the way.

I shall concentrate on originality in thoughts and ideas expressed in speech or writing, mainly because I don't know enough about originality in, for example, visual arts. Some of the ideas here may also work for visual arts and other disciplines.

Why does originality matter? Because we say that we value originality, in the work of students and of academics. It will be easier to enact this belief if we are clear what we mean by originality. But I think we sometimes struggle to define it, to recognise it, and certainly to assess it.

I shall not much consider plagiarism. I shan't mention Turnitin beyond this once. I am exploring originality. In a little more detail, I am exploring originality as a concept or phenomenon or practice; the development of originality; and the judgement or assessment of judgement of originality; all principally in an academic setting.

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Versions And Meanings Of Originality

I suggest that originality can usefully be considered along a spectrum from personal / local to global / universal.

In the local version of originality, original means original to the producer of the thought or idea. This may be expressed as “I had never seen or heard that thought until I expressed it.” (The cautious would add “... as far as I know”. We can sometimes forget the sources of some of our ‘original’ ideas. Accidental plagiarism, perhaps.)

Local originality may still engender strong positive feelings and respect, in the minds of author and readers alike. And deservedly so, given the intellectual effort, the reading and study and thought and critical analysis and synthesis that may have gone into creating and then enjoying the idea.

Global originality by contrast may mean something like: “That thought has never before been thought in the history of the universe.” This global account of originality may be unreasonably global. ‘Global originality’ might require only that the idea had not previously been published in a form and location which was reasonably accessible to the current author of the thought.

What about the quality of the hopefully original idea? This may include the elegance, acceptability, power, or other valued characteristics of the idea. I shall return to part of this difficult issue later in the article when I explore critical originality, and again at the end where I offer a possible, if daunting, measure of quality.

As an author, when I offer a paper for presentation or publication, I surely make a claim, at least implicitly, for the global originality of some ideas in the paper; else why offer it for publication, if it adds nothing to what is already known? And as a reader or reviewer, I surely respond to, judge, an at least implied claim for originality. But both the author’s claim for the global originality of some of the ideas in the paper and the reviewer’s assessment of its global originality are based on what they already know. In practice, originality, whether as a claim or as a response to a claim, is knowledge-dependent. Specifically, originality is relative to the knowledge of the author and then reviewer.

Originality is relative also to the knowledge of the reader. Originality is not just a quality of the publication, but also of what the reader already knows. A publication can be usefully original to me, but not to you.

Students And Originality

How does this work for students?

In week one of their studies, we might hope that a student is already describing accurately, explaining clearly, critiquing in a considered way, and applying appropriately, what they are learning. (Indeed, we might feel that 'describing accurately, explaining clearly, critiquing in a considered way and applying appropriately' is at least part of a fair account of the results of learning.)

We might also hope that the student is beginning, or will soon begin, to make their own sense of what they are learning. This may involve them offering some ideas that go a little beyond what they are reading and being taught. They may show a very local, cautious, perhaps sometimes under-informed, but nonetheless thoughtful, originality of ideas and understanding. In some cases, through thus going beyond what they have been taught, they may become better able to predict accurately or act effectively within the field of study. We should hope that this local originality would grow throughout their studies, perhaps at some stage becoming less local, alongside other necessary academic, disciplinary and professional qualities.

I don't know how often, or how effectively, we are explicit about this dimension of learning – about a growth in the originality of the work of students are doing.

Being Original

Thus far I have talked about originality both as a claim about and as a response to the thought or idea offered. But it is also useful to think about originality as a process; the process of being original.

Is there any useful sense in which the student in their studies and the professor in their research and publication are both being original? I think, yes. Both are going beyond. Both are moving out from what they already know from previous reading and study, from what they can access, acknowledge and reference. Both are creating; with differing amounts of confidence and significance; knowledge or understanding that is new. It is new to themselves at least, and hopefully in the case of the professor also new to a wider, perhaps global, audience within their discipline.

From both student and professor we should expect an appropriate degree of reference to current knowledge. But appropriate, of course, means something very different for our student and our professor. The professor, obviously, would know and understand and be able to analyse and critique and interpret and use and reference much more knowledge than the student. Although students, particularly on a post experience course, will bring particular knowledge and experience which a good teacher will value and use.

Helping People To Become Original

How do we help our students to become appropriately original?

Maybe, teach them more and more content; teach them to engage with the content, to critique and use it. And, perhaps, a few of them will become professors.

No. Originality does not automatically follow from the accumulation of knowledge, even from persistent active engagement with knowledge. Indeed, accumulation may on a bad day bury a flickering originality under the weight of content. Originality; alongside other good academic, disciplinary and professional qualities; also needs to be encouraged and supported and rewarded and valued; from day one.

How do we help student to become original? I would suggest that, from the start of their studies:

1. We explicitly value originality.

2. We talk with (not to) our students about what originality means, and why it matters, in the particular disciplines they are studying.
3. We disentangle local from global originality, perhaps using some of the ideas from this article.
4. We make originality into a learning outcome for their programmes of study – “Students will be able to go beyond what they had been taught and read, and produce ideas, suggestions, explanations, possibly even theories and models, which are at least locally original.”
5. Or we make originality one of the criteria against which their work will be assessed.
6. We encourage students to critique their own and each other’s work, with reference to, among other qualities, its originality.
7. We reward originality, with attention and then with marks and grades.
8. We provide many opportunities and much encouragement for students to develop and demonstrate their originality.
9. Then, throughout the course of their studies, we encourage them along the spectrum from local towards more global originality, in part by teaching them how to engage with the wider literature of the subject, and in part by helping them become more (and justifiably) confident in their originality.

I need to say some more about this. There is a widespread view of the process of learning. It is rarely made explicit, but it is often clearly visible in the structure of our courses, in our teaching, in our assessment. This view says that, first, we learn the content. Then, as a later step, we learn to critique it, apply it, even be original in it.

I don’t think this view is accurate:

Good course design and good teaching encourage students to see the literature, not as tablets of stone, but as an evolving set of more or less original and valid ideas and understandings, each building on and then going beyond some previous work. Originality should be one lens

through which we read, study and make sense of the literature. We can do this by encouraging our students (and ourselves) to analyse the links and relationships between papers, to identify the particular originality of a publication and how it relates to predecessors. This will help us and our students to see the structure of the discipline or profession – perhaps structure is a bit static, better perhaps to see how the discipline or profession moves, develops; to see its life.

Once this more active approach to the literature becomes habit, our students can seek out and review the literature by asking how the literature relates to their own recent and perhaps at least locally original work. This inverts the normal relationship between student work and the literature. It puts the student's work, and in particular the possible originality of the student's work, centre stage. It asks students to explore how the literature supports or refutes the student's ideas. This requires a student to take their own work, and their own local originality, seriously. It helps them to act, and thereby to see themselves, as scholars, as proto-members of the discipline or profession, rather than as unworthy dependents.

Becoming Critically original

I am reluctant to talk about the quality of a student's original ideas; because I find this very difficult area, and because I suspect that disciplinary differences are enormously important here. But of this I am confident: Whatever the discipline, originality needs to become an increasingly critical originality. The particular critiques, and more broadly the critical approaches, will need to be developed by lecturers, by students alone and with their peers, and in conversation between students and lecturers. Again these critical approaches may vary greatly among disciplines.

Originality is a quality of the work of a student. Originality is judged in feedback and assessment. The lecturer's skill lies in getting the nature and weight and progression of their responses to student work right. This skill is also required of the student reviewing and evaluating their own work, and of students reviewing and evaluating each other's work, both of which can be an immensely valuable activity both for the assessor and the student being assessed.

Whoever is giving feedback on the originality of students' work must not tread on the student's dreams. Nor must they dishonestly flatter under the badge of being sensitive. Rather, they should steadily demonstrate and practise and discuss an increasingly critical and informed approach to work and study, which includes being explicit about the rationale for their critical comments.

The tempting clichés about steel and fires will be resisted. But students need to test their original ideas against a growing range of the literature, against increasingly sophisticated critical approaches, against the establish corpus of knowledge, and (depending on the subject they are studying) perhaps also against their own experience and personal or professional knowledge.

This need not be a discouraging experience for the student, although it both requires and develops a certain personal and professional strength. The students will come to enjoy and value both the critical and the creative parts of critical originality.

They will find the unexpected satisfaction which can follow from laying aside (perhaps with a sigh) an idea they have developed which is not supported by further reading and evidence.

And they will find delight in, from time to time, confirming that their new idea has some strength and validity; has some explanatory, even predictive, power; and deserves to be taken further forward.

Also, they will learn not to be discouraged when they find someone has got there before them. Local originality is not a failure of global originality. Rather it is a step on the long road that may one day lead to global originality.

And so on through the careers of a graduate, a professional, even an academic.

Becoming a professor would not be the only happy ending to this story. Being critically original is a capability and an approach to work that is valued within and well beyond the University.

But if such critical originality is to be a goal of education, as well as an aspiration, we need to take it seriously; to be explicit about it; and to explain and illustrate in our own work what it can mean. We need to give students opportunities to develop their critical originality, and to receive

feedback on their attainment of it. Students' critical originality needs to be developed within the discipline being studied, although students may welcome the chance to apply the approach to other areas.

And we need to assess originality in clearly valid ways. Generically, that might involve students undertaking some work that is at least locally original; critiquing the work; and identifying and making a reasoned case for the nature and extent of its originality. Again this will play out differently in different subjects.

Originality And Knowledge

I have explored relationships between originality, education and learning, and suggested some ways in which originality can be developed. Finally in this article I shall explore the big one; the relationship between originality and knowledge.

Why do I call this the big one?

On knowledge

The academic world reveres knowledge. Research is valued as the production of knowledge. Teaching is often described (and also experienced) as the transmission or handing on of knowledge. Expertise involves (not exclusively) having knowledge. Experts are people who know a lot. This academic view and valuing of knowledge is reflected in the popular domain, where quizzes, whether pub or TV, mostly value knowledge. Much less often do they value the ability to reason, solve problems, or make connections, seen in exceptions such as The Krypton Factor and Brain of Britain.

How does originality relate to this very high value placed on knowledge?

Originality and the development of new knowledge

One way is through the role of originality in the development of new knowledge. This is an often mysterious, hidden, hard-to-describe process, even for those who develop such new knowledge. Kekule gives a vivid account (see <http://tinyurl.com/Kekule>) of realising that a possible structure for the benzene molecule could be a six-carbon-atom ring, rather than a string of atoms as had been thought until then. This idea came to him through a vivid daydream of a snake eating its own tail.

Do such accounts offer help for those who would create new knowledge? I think so. Such stories suggest the value of letting imagination run free, allowing wild images to form and then checking what implications the images may have for the problem at hand.

We find an important link here between originality and knowledge through a scientific method in which hypotheses, models, explanations can be developed through any process at all, then tested rigorously for their predictive or explanatory power (Popper 2002).

Creating as well as testing hypotheses

It may be that current education places a little too much emphasis on the rigorous testing of hypotheses, and not enough emphasis on generating the hypotheses in the first place. This imbalance may in turn draw for students a picture of science and technology, and perhaps other disciplines involving some element of critical analysis – hopefully, then, most disciplines – as more procedural, more knowledge-stuffed, and less welcoming of originality, than they actually are, or for their own health should be. There is a possible route here – through the welcoming of critical originality – to making many disciplines more attractive, to a wider range of students; perhaps, also, to making them more fun, and maybe even more productive?

This does not mean a lowering of standards. Only ideas that survive tough tests will become accepted as valued knowledge. The academy is safe.

Originality valued as the development of hypotheses for testing can also bring to life the sometime empty rhetoric of constructivist approaches to learning, by being explicit about what are being constructed – hypotheses – and then saying how these hypotheses will be tested and used.

I realise, or hope, that again there are differences between different disciplines in these respects.

Perils of over-emphasising knowledge

There is a hierarchy of valuing of knowledge. The language of education shows clearly how propositional and conceptual / theoretical knowledge are valued over know-how. The UK Minister of Education has made this utterly explicit very recently – <http://tinyurl.com/GoveKnow>. Know-how is usually referred to as skill, and generally has lower status than knowledge.

Events can re-balance our view of this. As an eye surgeon recently replaced my somewhat cloudy lens with a shiny new plastic one, I was hugely more concerned with her skill than with her knowledge, much though I also value the latter. Actually I was unconscious at the time, but you know what I mean.

I sometimes fear that over-emphasis on knowledge; whether propositional (know what), procedural (know how), or conceptual / theoretical (know why); may tend to drive out originality.

A race to the bottom

Knowledge on the page or the screen looks so certain, does it not? The first, natural, thing for a learner to do with knowledge on a page seems to be to try to learn it. Teachers, valuing what they know, have a corresponding tendency to teach it. The players having variously taught it and learned it, the next obvious thing is to assess it, to find out if it has been learned. Propositional knowledge consists mainly of – well, propositions. Conceptual / theoretical knowledge similarly consists of concepts and theories. And all of these tend to be taught and learned as what we may, generically and not discourteously, call ‘stuff’. The pathology of this is

relatively easy to explain. Learning becomes memorising. Memorised knowledge is relatively easy to assess. And the sheer quantity of knowledge out there, sifted through the quality-assuring processes of refereeing and review, is enough to fill and over-fill any course we could design. Obviously, we must teach more. Because there is always more to know. This is a kind of academic race to the bottom. It might sound harsh to describe an obsession with knowledge as the bottom. I speak in these terms this, not because knowledge is unimportant, but because, increasingly, it simply isn't enough.

Our concerns about originality

Also, I suspect that we are ambivalent about originality. I suggested above a typology of originality, from local to global. I have been reluctant to talk about the quality of ideas; but one useful indicator of the quality of an original idea maybe the extent and scale to which it changes our view of the world, changes our practices. An original idea may go nowhere. By contrast $e=mc^2$ in 1905 has gone a very long way, and is still proving of great value. Thinking about originality may push us to reflect critically on the nature and extent of our own originality, a reflection which we may or may not find encouraging.

And anyway originality is hard to assess, is it not? Particularly if we are assessing local originality, where there may be an inverse relationship between knowledge and originality. The less I know, the more locally original ideas I may have. There's a dilemma.

The normal academic instinct, I think, at this point, is to let knowledge trump originality; to say "You should have known that." rather than "Well done for having that idea." I feel, on balance, that this latter is generally is an unhelpful stance for a teacher to take. Why?

A changing relationship between knowledge and originality

Knowledge is becoming much more readily accessible. The machines have replaced much manual work. They are now replacing more and brain work, progressively leaving the more difficult and more rewarding work to us. The relationship between on the one hand Moore's Law

of progress in the power of computers and on the other their ability to do some of the difficult stuff we do (such as, of course, being original) may or may not be linear. But there will be some positive correlation, now and into the future. The machines are, despite our occasional experiences to the contrary, becoming smarter.

However this plays out, I'm pretty sure that originality in graduates and academics will continue to become a more and more important and valued ability or quality. Of course our graduates will still know a lot. But their knowledge will increasingly be a side-product of their ability to be critically original. They will access and use the knowledge, from their memory or by looking it up, selectively and critically, when they need it.

Comment

Practising what I have preached:

The author claims this article to be locally original. He is conscious that he has read about this topic and related topics over the years. He is therefore confident that the article uses ideas previously read and mostly forgotten, certainly the sources of them forgotten, hence the paucity of references.

He has also chosen to omit ideas that might have been relevant.

He makes no claim to global originality. However, he hopes some of the ideas will be useful – a useful reminder that utility is not the same as originality.

He feels better for thus having made the status of this article clear.

Acknowledgements

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This article is developed from five posts on the author's website, <http://davidbaume.com>.

References

Popper, Karl Raimund. *The Logic of Scientific Discovery*. Psychology Press, 2002.