

Fake news and post-truth – does philosophy have anything to say to forestry?

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Abstract

Two current buzzwords are ‘fake news’ and ‘post-truth’. What do these mean and what bearing do they have on science, including forestry? The main point argued here is that fake news and post-truth undermine trust in all the sciences, including those involved in forestry. Further issues covered concern the pervasiveness of trust in science, a suggestion about what trust is, and the deleterious effects of undermining trust in science. The paper ends with some consequences of the notion of trust outlined that need to be developed in a more complete account of our trust in science.

Fake news

We humans are fallible creatures. Sometimes what we say is true and other times it is false. Let us accept human fallibility and the attempts we might make to minimise falsity and maximise the truth of what we believe. Fake news is different from fallibility, and can come in a number of forms. One kind arises when someone deliberately lies to us or some source of information contains deliberate lies. Here the news

faker pays attention to what is true or false, but instead of attempting to convey the truth to us, as we normally suppose in our interactions with others, they convey the false to us, for whatever reason.

A second kind of news faker is someone who does not care about truth or falsity, so does not care whether or not they convey truths or falsities to us – they are indifferent to either. They do want us to believe what they say, but for reasons that have nothing to do with truth or falsity.

Is there more fake news about than there used to be? It is hard to tell. What indicates that the news or information on the internet, or in a newspaper, is true or false or deliberately false? Nothing really tells us. But we do trust our sources to be right. Or we rely on them to be right. They might even tell us that they are right, but then why should we accept that? We generally trust that the writers and the editors of news on the internet are honest people. In science we trust the institutional arrangements of peer reviews, journal editors and journal reputations. In this way, trust in information stands in contrast to fake news.

But we can sometimes be wrong about such trust and have a misplaced trust. The internet is recognised to be unreliable in some respects and those who run it are trying to fix problems arising from its lack of reliability; but they have a way to go. Can we have guarantors of trust? Yes, there are organisations that claim to check trust such as the 'Edelman Trust Barometer' used by the Edelman global communications marketing firm. Controversially they say:

'The 2017 Edelman Trust Barometer reveals that trust is in crisis around the world.

The general population's trust in all four key institutions – business, government, NGOs, and media – has declined broadly ...'

It would be alarming if trust has declined for whatever reason. If you want more about its results, look at Edelman on the web. But let us set one question aside: are we to trust the Edelman barometers? Yes, they can be checked, but thinking about this kind of question can lead you into a deep global skepticism about most matters. Let us try to keep skepticism at the local level only.

Post-truth

The *Oxford Dictionaries* declared their international word for 2016 to be 'post-truth'. However, the word is not that new – it was first coined in the 1990s. Also the phenomenon it describes is quite old, even older than the philosopher Plato who first discussed something like it 2,400 years ago. But not under that name; he used the term 'rhetoric', a term which comes from ancient Greek.

The *Oxford Dictionaries* tell us that post-truth means: 'objective facts are less influential in shaping public opinion than appeals to emotion and personal belief.' So the word 'post-truth' is misleading; there is always a truth to be found but maybe nobody looks for it. One of the common aims we have in accepting information or news is to get at what are the objective facts; that is, getting at truths and eschewing falsities about the world. But on the definition of post-truth, such aims are no longer significant or are not to be countenanced. In post-truth we disvalue matters like truth and falsity so that they drop out of the picture in favour of – what? Appeals to emotion and personal belief rather than appeals to anything to do with truth. Put baldly like this it is a shocking stance, but one which is easily recognisable and all too common.

As an illustration, pick your own favourite post-truth which has become prominent in the 'Brexit' referendum or the last US presidential election. There was the bus in the UK which was emblazoned with the false claim that 'we send the EU€350 million a week.' Fact checking shows that to be wrong, and even Nigel Farage eventually stepped away from the claim. Again there is the Trump 'birther' claim that Obama was not a US citizen. Eventually he grudgingly, but briefly, backtracked on this.

In both cases, fake news is allowed to prevail and truth drops out of consideration leaving us in some 'post-truth' limbo. What is dismaying in these cases is the contempt in which liars hold those to whom they deliberately lie to further their ends. They do not care about truth. But Farage and Trump each won their respective elections, did they not? What is important here is some desired outcome rather than truth or falsity.

For more go to the *New York Times*, which has been tracking fake news in the case of Trump since his election. *The Washington Post* fact-check (at the time of writing) lists over 1,000 false or misleading claims from Trump in the first seven months of his presidency. Note, however, that Trump can add to the confusion by calling most of what the media says about him as 'fake news'. Even the fakers of news can use the phrase 'fake news' for their own ends, thereby sowing seeds of confusion.

Are you entitled to your own opinion?

The definition of post-truth also talks of 'personal belief'. So what is this? One way to understand it is the following. People often say: 'each of us is entitled to our own opinion.' But are we always entitled? Here two sorts of entitlement are commonly confused and need to be disambiguated: legal entitlement and epistemic or evidential entitlement.

Each of us has a legal entitlement to open our mouth and freely speak; this is guaranteed by a Bill of Rights. However, there are conditions on free speech, such as that we are not to defame others, we are to respect copyright, respect another person's right to privacy, and so on. The entitlement is quite strong; it is one in which no other person can stop you from speaking no matter how silly or wrong you might be. If they were to stop you they would infringe one of your rights – your right to freedom of speech. So if you say: 'vaccines cause autism' or 'fluoridation is unhealthy for the body', then no matter how often this has been disproved in science, no-one can legally stop you from saying this.

But are any of us entitled to say such things when we have no evidence or reason for making these claims, or when the evidence is against us, or when what we say is provably wrong? Here a legal entitlement is not being considered, but rather an evidential entitlement, which must be based in evidence and reason. Being evidentially entitled in this way means that your view is a serious candidate for the truth. Importantly, you are not entitled to your opinion unless you can provide evidence or a reason for it.

We can see how radical the view of post-truth is when it claims that personal beliefs are shapers of public opinion and not anything to do with truth or reason. Everyone's personal belief is as good as any other's personal belief. Each is able to express their opinion and thereby shape public opinion. This is an entitlement

guaranteed by freedom of speech. But nothing follows about any evidential entitlement concerning your personal belief. You are only evidentially entitled to your belief if you can argue for it. So it is important to keep distinct legal entitlements for belief as opposed to evidential entitlements for belief. But for 'post-truthers' this does not matter since evidential requirements about belief get dropped when truth is dropped. Their aim is to get you to believe what they believe, regardless of the truth of what is believed.

The shapers of belief in a post-truth world

One of the things that distinguishes us from other animals is our possession of a brain, which enables us to form beliefs. No other creature can do this as successfully as we do since we are able to form an indefinitely large number of beliefs. Granted this, what is the difference between beliefs and knowledge? This is an old philosophical topic about which I will mention just one traditional, but influential, way of drawing the distinction. We know that, for instance, the Earth orbits the Sun when the following three conditions hold:

1. It is *true* that the Earth orbits the Sun.
2. We *believe* that the Earth orbits the Sun.
3. We *have evidence* which is sufficient for the truth of the claim that the Earth orbits the Sun.

That is, knowledge requires truth, belief and evidence. Knowledge is evidence-based while belief is not. As can be seen, knowledge involves belief, but a lot more as well. The extra step importantly involves your having evidence; without your possessing the evidence you do not have knowledge – only belief.

Given this, you can quickly see that if we accept the post-truth view then all claims to knowledge are downgraded since both the truth and evidence conditions are not to be taken seriously. Note that this account of knowledge is different from that based on direct experience using our sense organs such as seeing, hearing, feeling and the like in which evidence is not involved. But the kind of knowledge defined here can well involve both reports of experience and evidential matters based on them, i.e. a combination of experience and reason.

The account of knowledge given here sets out part of what we might call the 'rational pathway' concerning belief formation. But there are also non-rational pathways for belief formation, many of which are championed by 'post-truthers'. Already mentioned are appeals to emotion and 'personal belief'. To this we can add a number of other non-rational pathways discussed in ancient Greek philosophy such as persuasion, rhetoric, the powers that others exert on us to accept what they say, accepting beliefs which induce happiness or pleasure, or accepting beliefs which comport with our interests or beliefs which fulfil our wishes.

The modern era has seen a vastly expanded number of non-rational ways of forming beliefs, such

as conformational bias, brainwashing and the whole panoply of techniques of persuasion due to advertising. All of these are well-studied in part of the academic discipline of psychology, which yields a whole range of techniques of persuasion found in advertising and salesmanship.

The trouble with these ways of forming beliefs is that they do not appeal to evidence and they are not reliable for the truth of what is believed. Worse, we can pick up false, as well as true, beliefs in these ways. Which way do we want beliefs of others and ourselves to be formed? Shockingly, there might be no shame in showing one's beliefs are not based on evidence and are due to non-rational factors. The non-rational pathway undermines and discredits our powers to think about what we believe and to discover truths. The dismal prospect of the post-truth era is beliefs that are indifferent to truth or falsity, but which are adopted because they are, say, power-enhancing.

An example of trust in science

Trust is importantly involved in what we accept in science and elsewhere. But what is trust in this context? As we will see, it seems to fall somewhere between having knowledge and having mere beliefs. So does trust give rise to a problem for knowledge in a post-truth world? Not quite, but as will be seen trust can be undermined by the post-truth stance. First, let me give an illustration of trust in science and then say something more general about it. As a test about astronomical science I used to ask students in my classes: 'Which of the following is true: (1) The Sun orbits the Earth? or (2) The Earth orbits the Sun? Raise your hand.'

When I asked 'Does the Sun orbit the Earth?' I sometimes got some raised hands, although they were often hesitant. The students had a belief or opinion about which of the two questions was correct, however they are wrong. When I asked 'Does the Earth orbit the Sun?' I got more raised hands, and this time some were more definite (to my relief). So these students had an opinion or a belief and this time they were right. So here we have a case of true belief. But did the students *know* that the Earth orbits the Sun? If they did they would need to have evidence for this claim.

Alas, none of them had any acceptable evidence. Some mentioned pictures from satellites, which is not right. Others talked about astronauts reporting it, but this is false. None of them had any of the evidence that has been available from the beginning of the 16th century when Copernicus first gave his reasons for adopting a Sun-centred solar system with orbiting planets. Nor could any give the vast amount of evidence provided by Galileo, Newton and a host of others since. In my experience, most people cannot cite any evidence. So in the absence of any evidence for the Earth orbiting the Sun none can have any knowledge – on the definition given here.

This is surprising. What is the remedy here? Perhaps our definition of knowledge is too demanding in what



it requires of knowers, i.e., that they have evidence. This is a position some might adopt and so attempts are made to revise the definition of what it is to have knowledge. Alternatively, if the definition is taken to be acceptable, should we accept the clear fact that people fail to know in this case?

In what follows we will take the second option and say that, on the definition of knowledge given, most of us simply fail to know that the Earth orbits the Sun. We do have a belief that is true, but we fall short on having any knowledge. Is this something that post-truthers might be pleased about? Well, in part, but the belief is still said to be true. So they cannot be totally pleased, unless they go sceptical about truth or become truth-relativists as is often the case.

Let us now explore the thought that the students have taken on board the belief that the Earth orbits the Sun as a matter of trust in the prevailing science. Here we might like to draw a distinction between *knowledge by evidence* (provided by Copernicus, Galileo, Newton and other expert scientists) versus *knowledge by trust* (taken on board by the rest of us non-scientists).

Here are some simple examples of taking matters on trust:

- Suppose as a lecturer I stand in front of a student audience and say 'The Earth orbits the Sun', and students take what I say on trust largely based on my role as an authority; or
- The students read a text book which says 'The Earth orbits the Sun', and they take this on trust; or
- They read a book by Copernicus that says 'The Earth orbits the Sun', and it even cites some evidence which the students also take on board, and then

they work out how the evidence supports the claim about the Earth's orbit; or

- As an after school punishment they are asked to write out 500 times 'The Earth orbits the Sun', and they suppose that they would not be asked to do this unless the claim was true; or
- Finally, they read reputable journals with well-known editors who publish only peer-reviewed papers that say 'The Earth orbits the Sun'.

A general claim about trust and its discontents

Now I wish to make a quite general claim: those who are not experts accept on trust what experts say in areas of science which are not their own. Someone working in astrophysics knows little about what goes on in, say, the theory of evolution or in linguistics. Each of these has to take on trust what the other claims about their own science; they lack the requisite knowledge by evidence. If we are members of the lay public outside science, it is incumbent on us to take on trust what experts currently claim in each the sciences, as we lack the requisite knowledge by evidence that the experts have. (Unfortunately in the post-truth world truth-deniers often reject even such knowledge by trust.)

The following sets out some general conditions about what counts as trust in science. The lay public has warranted trust in a body of experts as providers of information, i.e. they have knowledge by trust, if at least the following hold:

1. The lay public believes that the information has been honestly (i.e. truthfully, accurately and wholly) communicated to them by the experts.
2. The lay public takes the fact that the information has been so communicated to be a strong reason to believe the information.
3. The lay public believes that the information results from reliable scientific research carried out by the experts (i.e. the experts have knowledge by evidence even though the lay public do not get their knowledge this way).

Now we might raise questions about such an account, but let us not do this here. Let us look at what follows from it:

- It is very difficult to state what we mean by taking something on trust without appeal to matters such as truth, evidence and honesty. If we join the post-truthers or the fakers of news, then we cannot have a notion of a lay public trusting what scientific experts say. Post-truth and fake news undermine trust at the very level of understanding what we mean by trust. Perhaps for this reason there has been a decline in trust in science in the 'post-truth world'.
- But ought we be trustful? Sometimes not. I asked my medical doctor if he trusted pharmaceutical science. To my surprise my dispenser of medicines said 'no'.

His reason is that pharmaceutical companies often do clinical trials without advertising that fact, and then they do not publish results if they do not favour the product they are trying to market. Now this strikes at conditions (1) and (3). We do need an account of what is reliable scientific research and its communication to rule out the objections of my doctor.

- A strong condition (3) is needed because knowledge by trust can be quite fragile and be undermined if matters to do with knowledge by evidence are not present.
- The account above is somewhat deficient in that it ought to say something about consensus. Very rarely do scientific experts wholly agree; there can be dissensus. So the above needs to take into account scientific consensus where there is not all-round agreement.
- Of course (3) can get undermined by those who deny that proper science has been done. I think here of the case of climate change deniers who want to revisit the evidence. If you have reasons to reject (3)

then you do have grounds for joining the deniers, but the grounds have to be well established.

Finally, I wish to add to the above something about the degree of belief we ought to have in knowledge we get by trust. As a layperson what degree of belief ought I to have in any science advocated by experts (when they form a consensus)? My view is that we ought to have exactly the same degree of belief in the information as the scientific experts themselves have. From this there is an important corollary: we ought to change that degree of belief in the same way the experts themselves change their belief with new evidence. One of the problems here is that there is often little in scientific papers which tells us what degree of belief in their information the experts have. Perhaps there are grounds here for reforming the way scientific papers are published.

In summary, fake news and the post-truth stance undermine the trust that is so important when we come to accept science.

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The NZIF Foundation was established in 2011 to support forestry education, research and training through the provision of grants, scholarships and prizes, promoting the acquisition, development and dissemination of forestry-related knowledge and information, and other activities.

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