



Editorial

Logos, Ethos and Pathos: Whither academia and public health in a post-truth world?

Professor Peter G Robinson

Head of School, Oral and Dental Sciences, Lower Maudlin Street, Bristol, UK

Rhetoric tells us there are three approaches to persuasive argument; logos, ethos and pathos (Bernanke, 2010). Logos is the appeal to logic by use of facts, data and analogies. Ethos is ethical appeal, focusing on the author's credibility or character with allied use of audience-appropriate language and grammar. Pathos relates to emotional appeal by invoking sympathy, fear and anger.

Disease and Manifestations

We can think of these three approaches as humors, required in balance to allow the reasoned debate that is at the heart of both science and public health practice. Alarming, we are in a diseased state, where the humors are out of balance so that “objective facts are now less influential in shaping public opinion than appeals to emotion and personal belief” (Oxford Dictionaries, 2016). This disease is called post-truth. Post-truth is not simply a case of counter-argument by citing a different study or report. Instead post-truth dismisses or denies facts. Nichols (2017) declared that “The United States is now a country obsessed with the worship of its own ignorance” where people are proud of not knowing things.

In another manifestation, UK readers have witnessed attacks on expertise. Pro-Brexit politicians claimed that “People in this country have had enough of experts” and that “experts, soothsayers and astrologers are all in the same category.” Likewise, we have all seen the growth of fake news; the publication of deliberate misinformation with intent to mislead. Typically, websites pay people to generate fake news or entire websites are dedicated to its use, either for advertising or political leverage. Post-truth was Oxford Dictionaries' word of the year in 2016 and Collins Dictionary has short-listed fake news for their word for 2017.

Aetiology

Like many diseases, the aetiology of post-truth is multifactorial. The visible failure of politicians to be trustworthy, and their appeal to emotions and authorial credibility rather than logic has devalued truth. Secondly, science is difficult now! It confronts society with increasingly complex and fantastic facts that are hard to comprehend, and are especially challenging when they threaten our liberty or way of life, as is the case with minimum prices

for alcohol or policies to reduce global warming. Thirdly, whilst post-modernism encouraged us to accept multiple voices and to challenge power, it also shifted thinking far from objective reality towards social constructs and ethical relativism, so that people distrust all established structures and make up their own belief systems (Keyes, 2004). Fourth, an internet-globalised media, to which anybody now can contribute, intrudes into our daily life. We've always had myths and stories that shape our understanding and behaviour. Now the sheer volume of media drowns out the competing voices of rationalism and truth (D'Ancona, 2017). There are also inherent problems with journalism. Public health practitioners are familiar with the consequences of balanced reporting, for example on water fluoridation, where a minority opposing view is presented as equivalent to countless expert reports. There is also lazy journalism that puts facts in quotes rather than checking them. Finally, there is a kind of Foucauldian self-discipline in which we all collude. Many of us have ceased to be outraged by our politicians. We are indifferent to them and consequently complicit (D'Ancona, 2017). Commentators in the US have observed that many President Trump supporters would continue to support him, even if someone could prove to them that his arguments were fallacious. Plato's doctrine of truth requires people to have the capacity and desire to understand and see everything, and yet confirmation bias is more and more apparent in society as people recognise, favour and recall to endorse their existing beliefs.

Consequences

The first consequence of post-truth is further mistrust, so that we do not know whether to believe much of what we are told. In addition, population-wide decisions (from voting in elections and responses to global warming, to adding Fluoride to the water supply) are based on emotional rather than rational grounds. However, there is a more fundamental threat from the loss of truth. The lack of sound information undermines our autonomy, and therefore our health. Broader still, shared meaning is the glue that holds society together. Even without claiming the absolute realism of a completely objective world, if nobody knows what is true, then post-truth undermines that shared meaning and so risks the disintegration of society (Keyes, 2004).

The prescription

I have described how post-truth restricts the sharing of scientific knowledge. In so doing it harms both the organisation of societal efforts and the giving of power to people to improve health. It is therefore a disease of public health importance. Hence, we must intervene to defend truth and to protect autonomy. We must rebalance logos, ethos and pathos in debates about health.

How will we do that? The rebalancing is, in itself an act of persuasion, just like public health. And fortunately, public health practitioners are skilled at selecting and deploying apparently contradictory arguments.

The need for logos applies to our opponents, but also to ourselves. Yes, we must be vigilant, and fact check the claims made across all areas relevant to public health, whether by industry or by anti-fluoridationists. Thinking further upstream, we should support moves to restrict fake news and enhance fact-checking in the social media. But if we are to be guardians of the truth, we are also obliged to be honest. Several colleagues have expressed discomfort with some of the links drawn between periodontitis and a whole host of other diseases, whether to raise the prominence of oral health, or secure grant funding. Likewise, those of us developing or evaluating technologies must apply all our integrity to that work.

All of this is taking place in public, and so we will need to engage in that arena. We have seen that post-truth involves a lack of common understanding between science and society. It follows that there is need for greater involvement from the scientific community (Al-Rodhan, 2017). Such a move fits entirely with the societal impact recently required as a third mission of UK universities. Likewise, Nichols (2017) exhorts ‘experts’ to meet their obligation to educate.

We will need to set the agenda with a clear message. We can be more active, going beyond our usual press releases to use contemporary attention-grabbing messages and media such as podcasts, television and YouTube. Thus, we need a comms strategy.

There is scope for a greater online presence for DPH and science. Given that we are concerned about the availability of misinformation, then the first thing within our power is to increase the availability of the high-quality information in this journal. We will revisit the review started by Mike Lennon about the open access policy of *Community Dental Health*.

More broadly, Kaufman (2017) has argued that universities should allow greater access to their resources and knowledge as a “moral imperative in this new post-truth, failed-fourth-estate, post-literate age”. The information should be made accessible in ways that cannot be misinterpreted but can be acted on. MOOCs, digital documents, social marketing and nudging offer great potential in this regard (D’Ancona, 2017).

Plato argued that knowledge couldn’t be passed on to an unprepared soul. If we are to sever the conspiracy between the givers and receivers of fake news, our education must accustom people to accept knowledge, as well as provide the light to illuminate them. Such a strategy parallels our existing approaches in education and health promotion, where we try to help people find the power to act on messages they have received. More specifi-

cally, we should support education, both in the formal education sector and in health-educational activities to help people to discriminate between truth and the other stuff. Levitin (2017) has argued that we now all share an implicit contract that faster access to information requires us to invest some time verifying that information.

Whilst data guide our understanding, they are not the only intervention to deploy. Arron Banks noted early in the Brexit campaign that “facts don’t work.” They must be supplemented with emotional appeal. Those in the UK will have recognised the relatively dry Remain campaign against Brexit. Similarly, pro-Fluoridation activists over the decades have found themselves constantly playing catch-up, trying to refute sequential emotional arguments with data from another cohort study or review. In fact, over reliance on data is a form of positivism, where the data become more important than the point. Worse still, Lennon has argued that it is difficult to engage decision makers in the evidence (logos) on water fluoridation until you can convince them that public opinion is already supportive. Consequently, we, the supporters of logos, should employ more ethos and pathos.

Ethos, because this type of communication requires skill and charisma. D’Ancona (2017) recognised these qualities in Brian Cox and Stephen Hawking, who fly the flag for science. We should identify our own figureheads and spokespeople.

Pathos means that our messages must carry emotional resonance. Let’s resort to sympathy, humour and even ridicule where appropriate. Let’s create our own myths and stories. We have great successes to celebrate in dental public health, and maybe we should sell our next interventions as another chapter in our narrative to improve health. We are clever enough to do this whilst at the same time being truthful and treating people as autonomous adults.

Or, maybe there’s no need to worry about post-truth. The UK will be able to afford a new hospital every week after Brexit.

References

- D’Ancona, M. (2017): *Post Truth*. Ebury Press, London.
- Bernanke, B. (2010): Ethos, Pathos, and Logos Definition and Examples. *The Economic Outlook and Monetary Policy*. <https://pathosethoslogos.com/> Accessed 22nd October 2017.
- Kaufman, P.B. (2017): In the Post-Truth Era, Colleges Must Share Their Knowledge. *The Chronicle of Higher Education*. <http://www.chronicle.com/article/In-the-Post-Truth-Era/239628>. Accessed 22nd October 2017.
- Keyes, R. (2004): *The post truth era*. St. Martin’s Press, New York
- Lennon, M.A. (1993): Promoting water fluoridation. *Community Dental Health* **10** (Suppl 2):57-63.
- Levitin, D. (2017): *A field guide to lies and statistics: A neuroscientist on how to make sense of a complex world*. Viking Press, New York.
- Nichols, T. (2017): *The death of expertise*. Oxford University Press, New York.
- Oxford Dictionaries (2016): *Word of the Year 2016 is...* <https://en.oxforddictionaries.com/word-of-the-year/word-of-the-year-2016>. Accessed 22nd October 2017
- Al-Rodhan N, (2017). *Post-Truth Politics, the Fifth Estate and the Securitization of Fake News*, *Global Policy Journal*. <http://www.globalpolicyjournal.com/blog/07/06/2017/post-truth-politics-fifth-estate-and-securitization-fake-news>. Accessed 22nd October 2017