

## In a world of 'alternative facts' what does it mean to search for 'truth', scientifically and theologically?

"Truth" refers to a fact or belief that is accepted as certainty<sup>i</sup>. In reality, "the truth" is inherently subjective, causing much debate and disagreement across cultures, religions and academic disciplines, fuelling further truth seeking. Throughout history, and particularly since the enlightenment of the 18<sup>th</sup> century, tensions of "absolute truth" have blazed between science and theology. The late-Victorian publication "The Truth-Seeker" stated it would devote itself to: "science, morals, free thought...and whatever tends to elevate and emancipate the human race."<sup>ii</sup> Richard Dawkins argues that the logical scientist could not possibly believe there is a God; only science is truth<sup>iii</sup>. Concomitantly, some Christians reject science completely and would describe atheists as "enemies of the truth."<sup>iv</sup>

However, recently there has been a cultural shift in how we perceive truth that rejects both science and theology. Donald Trump's administration was criticised a week into government for use of the word "alternative facts"<sup>v</sup>. This word is rooted in the concept of "post-truth", the Oxford English Dictionary's new word of 2016<sup>vi</sup>, in which objective facts are rejected in favour of emotional or personal beliefs<sup>vii</sup>.

I argue that "alternative facts" are impossible considering science and theology, and that truth seeking across both disciplines must be centred on God. I will discuss my opinion from my knowledge as an evolutionary biologist and scientist and my faith as a Christian.

How can we ever understand the truth of our natural world? Ecological and evolutionary systems are highly complex, and data generated from such systems inherently noisy. Biologists in search of truth test hypotheses – predetermined relationships between variables that they believe will be proven by experimental data. The hypothesis that chance alone is responsible for generated data is termed the "null hypothesis". This could be "sunlight has no effect on bluebell density in a woodland". Biologists seek to reject null hypotheses, thus suggesting there is a relationship between their variables (in this case, sunlight and bluebells). Hypothesis testing in this way requires your experimental design to be as quantitatively rigorous and unbiased as possible. Statistics is then used to ask, "given my data, how much of this relationship is due to the factor I'm investigating, as opposed to chance?" However, statistics never rules out the possibility that your data is due to chance, nor can even the best of experimental designs measure all the factors that might be influencing a variable. We can build up an evidence base to get close to the truth, but it will never be "the truth".

What about the physical sciences? Even the most fundamental principles of Mathematics, axioms, are defined by mathematicians. Science falls apart without them, yet they can't be proven. Are they the truth? Or are they simply human constructs developed to enable our understanding of the world? Physicists have "universal laws", but these only hold under certain conditions. Newton's Second Law of Motion holds at speeds considerably lower than the speed of light, but requires modification close to the speed of light. Quantum mechanics and general relativity are laws that are currently unreconcilable. Unless you can experimentally test these laws to infinite precision, physics can only get close to the truth of our universe, but can never be completely certain.

However, all science follows a common pattern; a pre-supposed truth that scientists investigate. Therefore, science should be a rejection of alternative facts. It does not function on emotion, nor do (good) scientists lie. Science is not immune to subjectivity, but rigorous peer review should ensure that biased and poor research does not reach publication.

Consequently, it is impossible to believe science is the ultimate truth, but rather an approximation of the truth. What of theological truth? Stephen Hawking states: "It would be very difficult to explain why the

universe should have begun in just this way, except as the act of a God who intended to create beings like us<sup>viii</sup>". The creation of the universe, our solar system, the earth, life, human beings...these are so improbable that having a God seems a logical solution to understanding them. God gifted human beings the cognitive ability to know what it means to "seek truth". He wants us to know him and his creation, and if he is the creator, in him all truth of his creation can be found.

However, how do we know God is truth? For Christians, we have the Bible. The Bible is the Word of God; it is God-breathed<sup>ix</sup>. Therefore, the Bible is truth. Humans also have Moral Law, distinguishing them from all other life on earth in their awareness of right and wrong. C.S. Lewis strongly advocates this as evidence that we were created to know God and exemplify him<sup>x</sup>. However, Christianity has one piece of evidence that distinguishes it from all world religions: the man of Jesus Christ. Jesus was God, but also a living, breathing human being. Therefore, if God is the ultimate truth, because he is the creator of the universe, seeking truth theologically means accepting Jesus. This requires faith, but is not without evidence. We have eyewitness accounts, some written just 15 years after Jesus' death, to testify to this.

Both science and theology are acts of faith based on evidence. They may be swayed or warped by emotion or personal belief, but at their very essence the paradigm of alternative facts does not concord with academic enquiry. As a scientist, I seek truth with the evidence available. Such is the same with Christianity. However, if one accepts Jesus as the Lord and Saviour, truth-seeking is ultimately no longer required. We will never cease to ask questions of our faith, but Jesus said: "I am the Way, the Truth and the Life"<sup>xi</sup>. Through Jesus, God gave us the ultimate truth of his existence, his power and his love.

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<sup>i</sup> truth - definition of truth in English | Oxford Dictionaries. (2017). Oxford Dictionaries | English. Retrieved 30 August 2017, from <https://en.oxforddictionaries.com/definition/truth>

<sup>ii</sup> Jacoby, S. (2005). *Freethinkers*, pp. 155 – 156, New York: Owl Books, Henry Holt and Co.

<sup>iii</sup> Dawkins, R. (2008). *The God Delusion*. Boston: Houghton Mifflin Co.

<sup>iv</sup> Keller, T. *The Reason for God*. 2008: Dutton Penguin.

<sup>v</sup> Swaine, J. (2017). Donald Trump's team defends 'alternative facts' after widespread protests. *The Guardian*. Retrieved 30 August 2017, from <https://www.theguardian.com/us-news/2017/jan/22/donald-trump-kellyanne-conway-inauguration-alternative-facts>

<sup>vi</sup> Flood, A. (2017). 'Post-truth' named word of the year by Oxford Dictionaries. *The Guardian*. Retrieved 30 August 2017, from <https://www.theguardian.com/books/2016/nov/15/post-truth-named-word-of-the-year-by-oxford-dictionaries>

<sup>vii</sup> post-truth - definition of post-truth in English | Oxford Dictionaries. (2017). Oxford Dictionaries | English. Retrieved 30 August 2017, from <https://en.oxforddictionaries.com/definition/post-truth>

<sup>viii</sup> Hawking, S. (1988). *Stephen Hawking's A brief history of time*, pp127, New York: Bantam Books.

<sup>ix</sup> 2 Timothy 3: 16 – 17 (New International Version, 2011)

<sup>x</sup> Lewis, C. (2016). *Mere Christianity* (Signature Classics Edition), pp3 – 28, William Collins.

<sup>xi</sup> John 14: 6 (New International Version, 2011)