Leanne Lacey – Byrne (S19005337)

s19005337@mail.glyndwr.ac.uk

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5.5: Assessment 2 – Case study: Climate change and 'the 97%'

The 97% consensus is a figure that has been widely published as the percentage of agreement amongst leading scientists that global warming is real and that humans are the cause. (Anderegg et al., 2010; Cook et al., 2013; Cook et al., 2016; Doran and Zimmerman, 2009; Oreskes, 2017).

Groups such as Cook et al., discussed the consensus of humans being the cause of global warming with papers like, [Quantifying the consensus on anthropogenic global warming](https://iopscience.iop.org/article/10.1088/1748-9326/8/2/024024) [in the scientific literature](https://iopscience.iop.org/article/10.1088/1748-9326/8/2/024024), which has since gone on to be downloaded 1 million times (Cook, 2019). In this piece, the authors analysed 11944 papers that had been published between 1191 – 2011. Looking at the consensus on anthropogenic global warming and found that of 11944 papers discussing the topic, 97% of the papers agreed that humans are causing global warming. They then asked the authors of these papers to carry out there own analysis of the papers they wrote under the same criteria they had used. A consensus of 97.2% was established by the 1200 authors who responded in the reflection of the nature of their papers (Cook et al. 2013).

Oreskes published a paper in 2004, where 928 papers were compared and of these 928, Oreskes found there were no outright rejections to the consensus position that global warming is caused by people (Oreskes 2004). Her results are one of the papers supporting the 97% consensus.

Work carried out by Doran & Zimmerman in 2009 revealed an 82% agreement with the question "Do you think human activity is a significant contributing factor in changing mean global temperatures?**"** (Doran & Zimmerman, 2009). Perhaps not surprisingly, as the level of specificity in profession increases, so too does the consensus 97.5% of climatologists agree with the consensus, whereas only 77% of non-climatologist scientists agreed (Doran, 2009). In 2010 Anderegg et al., solidified these findings by finding 97% – 98% of climate scientists support the consensus (Anderegg et al., 2010).

According to NASA, other leading bodies that have come out in support of the consensus, including The American Medical Association, American Association for the Advancement of Science, American Chemical Association, American Geophysical Union, just to name a few (NASA, 2019). Also, countries have taken initiatives to tackle the problem, such as the Paris Agreement which outlined a promise to reduce emissions by a minimum of 55%, with 55 countries agreeing to the terms in 2016 (Paris Agreement, 2016). With this figure expanding to 189 parties in 2017 that have agreed on the terms of the Paris Agreement (UNFCCC, 2017).

The American Association for the Advancement of Science released a press release in 2009 and in it, they stated that “the scientific evidence is clear: global climate change caused by human activities is occurring now, and it is a growing threat to society.” (AAAS, 2019). On the 21st of October 2009, the American Association for the advancement of science also signed a letter with 17 other leading organisations that was addressed to the US Senate and highlighted their concerns and believe that global warming is indeed real, supported by science and a threat to the population (Letter to Members of the U.S. Senate by AAAS and 17 Other U.S. Scientific Organizations | American Association for the Advancement of Science, 2019).

Other leading bodies such as the Intergovernmental Panel on Climate Change (IPCC) have released many reports on climate change, they are currently in their sixth assessment cycle, with the results of that report to be released in 2022. In the last report published, the AR5, the IPCC state the report is the most comprehensive report undertaken by the IPCC to date and in the Synthesis report they state that human influence on climate change is clear and effects will be widespread impacts on human and natural resources (IPCC, 2014). Other leading bodies that agree with the statement that humans are causing global warming are bodies such as the American Geophysical Union and The American Meteorological Society (NASA, 2019; Stenhouse et al., 2014).

The UK Government have also urged the discussion and action on global climate change and in 2009, released an executive summary to this tune (Great Britain. Department Of Energy And Climate Change, 2009)

Considering this, it’s alarming to think the message has not entirely reached the general public, with their being the false perception that there is a disagreement between the experts upon the consensus. (Jessani and Harris, 2018). With 60% of the public believing the narrative (Nisbet and Myers [2007](https://iopscience.iop.org/article/10.1088/1748-9326/8/2/024024?fbclid=IwAR0EMFqnsAm706dVB4QAu1f9mZBSXj7N5BqpSNxbp0jItvh3jg3ITfpXJb8#erl460291bib15)) and only 43% believing scientists believed global warming was due to human activity (Pew, 2012; Doran and Zimmerman, 2009). In addition, there is denial from many policy makers and a resistance to reduce carbon emissions from these groups (Brownstein, 2010). It was postulated in 2008 by Jacques, Dunlap and Freeman, that over 92% of climate deniers were linked to conservative think tanks (CTTs) and they attribute climate denial to an elite driven, counter movement to purposely weaken the response to climate change (Jacques, Dunlap and Freeman, 2008). Conservative think tanks (CTTs) have had huge success in introduction scepticism against environmental climate change (Antilla [2005](https://www.tandfonline.com/doi/full/10.1080/09644010802055576); Boykoff and Boykoff [2004](https://www.tandfonline.com/doi/full/10.1080/09644010802055576); McCright and Dunlap [2003](https://www.tandfonline.com/doi/full/10.1080/09644010802055576); Mooney [2007](https://www.tandfonline.com/doi/full/10.1080/09644010802055576)) so perhaps its not a surprise that there’s a disconnect between the public opinion and that of the climatologist experts (Doran and Zimmerman, 2009).

Agreement of the facts is an important factor in implementing measures that will assist the correct measures are considered to reduce global warming (Ding et al., 2011; Jacques, Dunlap and Freeman, 2008; McCright, Dunlap and Xiao, 2013; Oreskes, 2017).

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