

The Modern Polemics of Astrology

MA in Cultural Astronomy and Astrology

History of Astrology

Medieval Cosmos

Two Examples

- Brian Cox and the BBC
 - Petition by the Astrological Association of Great Britain (AA) to the BBC for a fair representation of astrology
- Wikipedia's astrology pages
 - Attempts by astrologers to edit the astrology pages on Wikipedia
 - Astrology Page

Brian Cox and the BBC (1)

- *Wonders of the Solar System*
 - BBC TV programme, 28th March 2010
 - 'Astrology is rubbish'
 - Complaint by AA asking for a balanced representation of astrology
 - Standard reply from the BBC
 - 'His comments were his own, not those of the BBC and were based on his belief that there isn't sufficient evidence to support astrology. We recognise not everyone watching will agree but this was a view he was entitled to make.'
 - AA complained again and received a reply
 - 'We have nothing further to add'

Brian Cox and the BBC (2)

- *Huw Wheldon Lecture*

- 2nd December 2010

- Huw Wheldon was a former president of the Royal Television Society (RTS)

- Lecture by RTS each year

- Broadcast by BBC

- 'The BBC asked me for a statement – mine was, "I apologise to the Astrology community for not making myself clear. I should have said that this New Age drive is undermining the very fabric of our civilization.'

- 'There are potential problems with broadcasters assuming a totally neutral position in matters such as this.'

Brian Cox and the BBC (3)

- *Stargazing Live*
 - BBC TV programme, 3rd January 2011
 - Along with comedian Dara O'Briain
 - 'In the interests of balance on the BBC, yes astrology is nonsense'
 - Factually incorrect comments
 - AA received complaints from members
 - Petition to the BBC objecting to the misrepresentation of astrology on the station
 - Members informed
 - Thread opened on AA Blog moderated by AA webmaster

Petition

- Online petition on AA website
 - 'The Association will be requesting that the BBC make a public apology and a statement that they do not support the personal views of Professor Brian Cox or Dara O'Briain on the subject of astrology. We also request that the BBC will commit to making a fair and balanced representation of astrology when aired in the future.'
- 1800 electronic signatures
- 1300 false signatures at time of petition
 - O'Briain on Twitter
 - eMail confirmation
 - Abuse and ridicule
 - Threats

AA Blog

- Arguments against astrology

- Abuse

- For example from 'ccman'

- 'They called astrology rubbish because it IS rubbish you fucking reatards. I hope you none of you have kids. We don't need any more additions of the fucking moron gene to the gene pool. THank you and have a good day.

- PS the BBC and Cox et al. are laughing their asses off at you dumbcunts right now. '

- Cyber-attack

Guardian Newspaper Blog

- The Lay Scientist, Martin Robbins

- 'Astrologers Angered by the Stars'

- 'On the second sentence at least I think we can all agree. I'd *love* to see the BBC give a fair and balanced representation of astrology. In fact sod it, let's extend that to all newspapers as well.

Such a representation would depict astrology as a pseudoscience with no real basis in evidence that was already being ridiculed in the Dark Ages, and note that after thousands of years astrologers still can't produce statistically meaningful results.

It would observe that any apparent successes of astrology probably owe more to the use of cold-reading techniques, convenient vagueness, and the exploitation of psychological quirks like confirmation bias or the Forer effect, and express amazement at the continued ability of the astrological industry to lift hundreds of millions of euros, pounds and dollars out of the pockets of customers each year.'

- 'Should we debunk astrologers more respectfully?'
 - 750 comments posted on blog by Guardian readers
 - More than 90% opposed to astrology

- Ranging from rude and abusive to 'didn't they see this coming'

Brian Cox and the BBC (3)

- *Wonders of the Universe*

- March 2011

- No mention of astrology

- 'Regarding the petition, one cannot be sure, but my feeling is that we have been heard by the BBC and, although they are unlikely to apologise or make any promises, I suspect their programming policy has drawn a line for the time being against gratuitous attacks on astrology. We cannot trumpet success, but the work everyone has done has been beneficial'

- Roy Gillett, President of the AA

Arguments Used by Sceptics (1)

- AA Blog
 - Astrology is nonsense (no explanation why)
 - It has not been scientifically proven
 - It's on a par with religion, homeopathy, acupuncture, chiropractic
 - Celestial bodies cannot have a direct influence on individuals on Earth
 - Astrologers are frauds who are making vast sums of money from vulnerable people
 - Astrologers were not able to predict the discovery of Neptune or explain why there was a gap in horoscopes calculated before it was discovered

Arguments Used by Sceptics (2)

□ *Guardian* Blog

- Astrology is rubbish and calling it so is a fair comment and balanced
- If it's not scientific then it must be rubbish
- It should not have the same protection as religion
- Astrology is designed to separate people from their money and is used when people need a comfort blanket
- You cannot divide the population of the world into twelve
- There is no evidence for it
- Astrology is rubbish because the effect of the gravity field from planets in the solar system is minuscule
- Astrology is not just rubbish, it is dangerous because gullible people believe it and it influences their lives
- 'Astrologers leave their "predictions" intentionally vague for a good reason'
- 'Astrology, as religion, is for those who cannot bear to stand on their own two feet and face an unknown future, when a 'pretend' one can be put in the place of not knowing. What I can't understand is why they 'buy' a less than perfect picture of the future (immediate or long-term) when they have the freedom to pretend absolutely anything'

Wikipedia

- Wikipedia describes itself as follows:
 - 'Wikipedia is a free, collaboratively edited and multilingual Internet encyclopaedia supported by the non-profit Wikimedia Foundation. Its 22 million articles (over 3.9 million in English alone) have been written collaboratively by volunteers around the world. Almost all of its articles can be edited by anyone with access to the site, and it has about 100,000 regularly active contributors. As of July 2012, there are editions of Wikipedia in 285 languages. It has become the largest and most popular general reference work on the Internet...'
- It has an estimated 365 million readers worldwide.
- <http://en.wikipedia.org/wiki/Wikipedia> (accessed 6/7/2012)

Wikipedia Editing Guidelines

- ☐ Editing should be from a neutral point of view
- ☐ No original research
- ☐ Verifiability and reliable sources
- ☐ Build consensus to resolve disputes
- ☐ No personal attacks
- ☐ No legal threats
- ☐ Editors who engage in edit wars are liable to be blocked
- ☐ A limit of three reverts to a single page in a 24-hour period

Talk Page

- ☐ Each page on Wikipedia has an associated Talk page
- ☐ On the Talk page, discussions about the content take place
- ☐ This is where content is to be agreed by consensus

Neutrality of Wikipedia

- Wikipedia's own concerns
 - 'Although the policies of Wikipedia strongly espouse verifiability and a neutral point of view, criticisms leveled at Wikipedia include allegations about quality of writing, inaccurate or inconsistent information, and explicit content. Various experts (including Wales and Jonathan Zittrain) have expressed concern over possible (intentional or unintentional) biases. These allegations are addressed by various Wikipedia policies.'
 - Jimmy Wales (Jumbo or Jimbo) is one of the founders of Wikipedia
 - Jonathan Zittrain is a professor of Internet Law at Harvard
- <http://en.wikipedia.org/wiki/Wikipedia> (accessed 6/7/2012)

Astrology on Wikipedia

□ The Story So Far

- At the beginning of 2011 some astrologers tried to improve the content of the astrology pages
- Conflict with other Wikipedia editors
- Accusations of bias and improper referencing
- Attempts by the astrologers to remedy this
- Further complaints when astrological sources were used
- Frequent removal of content added by astrologers
- Numerous heated debates with astrologers accused of edit warring

Astrology is a Pseudoscience

- 'Astrology is a pseudoscience, and as such is not taken seriously by the academic or scientific communities. Some scientific testing of astrology has been conducted, and no evidence has been found to support either the premises or purported effects outlined in astrological tradition. Furthermore, there is no proposed mechanism of action by which the positions and motions of stars and planets could affect people and events on Earth that does not contradict well understood, basic aspects of biology and physics'
- <http://en.wikipedia.org/wiki/Astrology>

Modern Scientific Appraisal

- 'Astrology is a pseudoscience that has not demonstrated its effectiveness in controlled studies and has no scientific validity. When specific predictions from astrologers were tested in rigorous experimental procedures in the Carlson test, the predictions were falsified.'
- 'In a lecture in 2001, Stephen Hawkin stated stated "The reason most scientists don't believe in astrology is because it is not consistent with our theories that have been tested by experiment."
- 'Astrophysicist Neil deGrasse Tyson said that "astrology was discredited 600 years ago with the birth of modern science. 'To teach it as though you are contributing to the fundamental knowledge of an informed electorate is astonishing in this, the 21st century'. Education should be about knowing how to think, 'And part of knowing how to think is knowing how the laws of nature shape the world around us. Without that knowledge, without that capacity to think, you can easily become a victim of people who seek to take advantage of you". The founder of the Astrological Institute to which Tyson's criticism was directed responded "It's quite obvious that he hasn't studied the subject."
- 'In 1953, sociologist Theodor W. Adorno conducted a study of the astrology column of a Los Angeles newspaper as part of a project examining mass culture in capitalist society. Adorno concluded that astrology was a large-scale manifestation of systematic irrationalism, where individuals were subtly being led to believe that the author of the column was addressing them directly through the use of flattery and vague generalizations.'
- <http://en.wikipedia.org/wiki/Astrology>

Cognitive Bias

- 'By a process known as self-attribution, it has been shown in numerous studies that individuals with knowledge of astrology tend to describe their personality in terms of traits compatible with their star sign. The effect is heightened when the individuals were aware the personality description was being used to discuss astrology. Individuals who were not familiar with astrology had no such tendency.'

Lack of Clarity

- 'Testing the validity of astrology can be hard because there is no consensus amongst astrologers as to what astrology is or what it can predict. Most professional astrologers are paid to predict the future or describe a persons personality and life, but most horoscopes only make vague untestable statements that can almost apply to any individual. Astrologers avoid making verifiable predictions and instead rely on making vague statements which allows them to try and avoid falsification'

No Mechanism

- 'Astrology has been criticized for failing to provide a physical mechanism that links the movements of celestial bodies to their purported effects on human behaviour.'
- 'Astrologers for their part prefer not to attempt to explain astrology, and instead give it supernatural explanations such as divination or synchronicity. Others have proposed conventional causal agents such as electromagnetism within an intricate web of planetary fields and resonances in the solar system. Scientists dismiss magnetism as an implausible explanation, since the magnetic field of a large but distant planet such as Jupiter is far smaller than that produced by ordinary household appliances when measured from earth'

Other Comments

- Astrologers were unable to predict the existence of Neptune. It was Newton's universal law of gravitation that did that
- Pluto is no longer a planet
- New celestial bodies have been discovered
- Astrologers have only a small knowledge of astronomy and often do not take into account the precession of the equinoxes. They use the tropical zodiac to avoid the problem and make reference to the Age of Aquarius
- Some of the practices of astrology were contested on theological grounds by medieval Muslim astronomers

The Humanist

- 'Objections to Astrology: A statement by 186 leading scientists'
 - *The Humanist*, September/October 1975, Vol. 35, Issue 5, pp, 4-6.
 - 'Those who wish to believe in astrology should realize that there is no scientific foundation for its tenets'
 - 'It is simply a mistake to imagine that the forces exerted by stars and planets at the moment of birth can in any way shape our futures'
 - 'In these uncertain times many long for the comfort of having guidance in making decisions. They would like to believe in a destiny predetermined by astral forces beyond their control. However, we must all face the world, and we must realize that our futures lie in ourselves, and not in the stars'
 - 'It should be apparent that those individuals who continue to have faith in astrology do so in spite of the fact that there is no verified scientific basis for their beliefs, and indeed that there is strong evidence to the contrary'

Carlson Study (1)

- 'The most renowned' of the tests of astrology
- Shawn Carlson – a physics undergraduate at the University of California at Berkeley
- 'A double-blind test of astrology' published in *Nature*
- He attempts to conduct an experiment that he states 'would meet the tight specifications of both the scientific and astrological communities.'
- Claims that it was designed with the help of scientists, statisticians and astrologers.
- 70% of the subjects were college students at the University of California. Two had to be eliminated because they became convinced that astrology was the work of the devil and refused to participate in what they called 'an experimental test of evil'

Carlson Study (2)

- 2 parts

- Part 1

- Charts of volunteers were constructed by astrologers and interpreted. Each subject attempted to select his or her own chart interpretation from a group consisting of his/her own and two other interpretations chosen at random from the whole group. The subjects made first and second choices. They were asked to rate each interpretation between 1-10 with 10 being highest.
 - Random would mean a correct choice one-third of the time. Astrologers predicted half or more.

- Part 2

- The participating astrologers were separately given the natal chart of a random subject and a California Personality Inventory (CPI). Carlson calls this a 'respected measure of his personality traits'. They were also given two other CPIs chosen at random from the group. The astrologers were asked to choose two CPIs (first and second choices), which described personalities closest to the personality indicated by the natal chart. They also rated each CPI and a 1-10 scale (10 being highest) as to how closely its description of the subject's personality matched the personality description derived from the natal chart.
 - Random would mean a correct choice one-third of the time. Astrologers predicted half or more.

Carlson Study (3)

- Results

- Part 1

- The subjects choices were consistent with chance but so were their choices of CPI. CPI scored no better than the astrological interpretations. The reasons for this may have been due to a denial of some character traits or not knowing themselves. He accepts that this also applies to the astrological interpretations.
 - Therefore he concludes he cannot rule against the astrological hypothesis.

- Part 2

- The astrologers choices were consistent with chance. They could not score above one-third.
 - Despite the results of Part 1 and based purely on the results of Part 2, Carlson states,
 - 'We are now in a position to argue a surprisingly strong case against natal astrology as practised by reputable astrologers',
 - 'The experiment clearly refutes the astrological hypothesis'

Carlson Study (4)

- Criticisms (1)

- Professor Hans Eysenck

- 'The scales of the CPI are essentially arbitrary and subjective. They were not chosen by suitable statistical techniques, such as factor analysis.'

- 'It is important that scores on this test be interpreted by a competent psychologist'

- He noted the absence of psychological advisors in the test

- 'Critique of "A double-blind test of astrology"', *Astro-Psychological Problems*, Vol. 4 (1), Jan 1986

- 'At the time of his death, Eysenck was the living psychologist most frequently cited in science journals'

- http://en.wikipedia.org/wiki/Hans_Eysenck

Carlson Study (5)

- Criticisms (2)

- Joseph Vidmar

1. CPI Test
2. Gender
3. Astrologers dropping out
4. Complaints by astrologers
5. Letters to astrologers
6. Subjects?
7. Astrologers?
8. Incorrect charts
9. Standard Deviation 2.5
10. Article was not peer-reviewed

- *Correlation*, Vol. 26(1) 2008

Carlson Study (6)

□ Criticisms (3)

■ Suitbert Ertel

1. CPI Scales
2. Gender of the subjects
3. Did not include the type of information needed by astrologers
4. Should have used pair comparisons
5. Insufficient dissimilarities between the charts
6. A misleading account of the role astrologers played
7. Ertel's conclusion was that the design was unfair and the conclusions unjustified

■ *Journal of Scientific Exploration*, Vol. 23(2), 2009, pp. 125-137.

Carlson Study (7)

- Criticisms (4)

- Robert Curry

- Discusses Ertel's findings

- Carlson replied to Ertel's findings in 2009 by stating,

- 'A scientist never figures out how to analyze his data after the fact with all the data in view. This leads to selection biases that can skew the results to favour the experimenter's hopes. apparently Dr. Ertel has done just that.'

- Curry states that this remark seem hypocritical since Carlson and his associates appear to have done exactly that.

- He added that Ertel had done what Carlson had originally set out to do.

- *Correlation*, Vol. 27 (2), July 2011, pp. 7-33.

Wikipedia on Carlson

- 'Across several centuries of testing, the predictions of astrology have never been more accurate than that expected by chance alone/ One approach used in testing astrology quantitatively is through blind experiment the most renowned of these is Shawn Carlson's double-blind chart matching tests in which he challenged 28 astrologers to match over 100 natal charts to psychological profiles generated by the California Psychological Inventory (CPI) test. The experimental protocol used in Carlson's study was agreed to by a group of Physicists and Astrologers prior to the actual experiment itself. When Carlson's study was published in *Nature* in 1985, his conclusion was that predictions based on natal astrology were no better than chance, and that the testing "clearly refutes the astrological hypothesis"
- http://en.wikipedia.org/wiki/Astrology#Carlson.27s_experiment

Removal of Content

Initially, the Carlson experiment was criticized as having a biased design that made the astrologers' tasks more difficult than they needed to be, but deeper flaws in method and analysis emerged. Carlson had disregarded his own stated criteria of evaluation, grouped data into irrelevant categories, rejected unexpected results without reporting them, and drew an illogical conclusion based on the null hypothesis.[3][4][5] When the stated measurement criterion was applied, and the published data was evaluated according to the normal conventions of the social sciences, the two tests performed by the participating astrologers provided significant evidence (astrologers' ranking test: $p = .054$ with $ES = .15$, and astrologers' rating test: $p = .037$ with $ES = .10$), despite the unfair design, of their ability to successfully match CPIs to natal charts.[4] Observers have called for more detailed and stringent double-blind experiments.[3]

1. Hamilton, Teresa (1986). "Critique of the Carlson study". *Astropsychological Problems* (3): 9–12..
2. Eysenck (1986). Eysenck's assessment was to find: "The conclusion does not follow from the data".
3. McRitchie, Ken (August 2011). "Support for astrology from the Carlson double-blind experiment" . *ISAR International Astrologer* **40** (2): 33–38 .
4. Ertel, Suitbert (2009). "Appraisal of Shawn Carlson's Renowned Astrology Tests" . *Journal of Scientific Exploration* **23** (2): 125–137. "The design of Carlson's study violated the demands of fairness and its mode of analysis ignored common norms - of statistics".
5. Vidmar, Joseph (2008). "A Comprehensive Review of the Carlson Astrology Experiments" . *Correlation* **26** (1)

Removal of Content

I've added my 2c on the noticeboard. Disagree with Daniel J. Leivick to drastically edit the article unilaterally and without discussion. SLP (talk) 23:24, 26 September 2011 (UTC)

See WP:BRD. --Daniel 23:29, 26 September 2011 (UTC)

WP:BRD is a suggestion for a problem where "too many people are stuck discussing endlessly, and no progress can be made". Not the situation here. WP recommends that referenced material is never removed without appropriate talk-page discussion with the involved editors. -- Zac Δ talk! 23:48, 26 September 2011 (UTC)

Then try WP:BOLD. The idea that I should have to clear edits on the talk page is the anathema of what Wikipedia is. --Daniel 23:54, 26 September 2011 (UTC)

Not when it involves substantiated content. And please take the trouble to read the notice in the box above, which all editors here have laboured under: "Since the nature of this topic has been deemed controversial, all contributors are asked to please respect Wikipedia's policy No Personal Attacks (WP:NPA) and to abide by consensus (WP:CON). It is also important to **discuss substantial changes** here before making them, supplying full citations when adding information."

None of the material is substantiated. All of the sources cited are totally unacceptable according to WP:RS. Consensus cannot trump core policy. Dominus Vobisdu (talk) 01:10, 27 September 2011 (UTC)

Agreed that none of those references are reliable, and the section needs to be removed. Yobol (talk) 01:17, 27 September 2011 (UTC)

Most of the sources in the section "Gauquelin's research" appear to be similarly unreliable. Sigh. Yobol (talk) 01:28, 27 September 2011 (UTC)

Indeed. I've deleted that section, too. Dominus Vobisdu (talk) 01:34, 27 September 2011 (UTC)

Reliable Sources

- ❑ *Correlation* is not a reliable source because it contains articles about astrology
- ❑ Any journal that contains articles about astrology is fringe and cannot be used to criticise mainstream journals
- ❑ One editor's view was disregarded because he was an astrologer and therefore biased.
- ❑ No sceptic was disregarded for being a sceptic
- ❑ An astrologer brought the *Correlation* discussion to the attention of Jimmy Wales
 - In reply to a post by the *Correlation* editor
 - ❑ 'Based on reading this, I can say without hesitation that I do not consider *Correlation* to be a valid source for Wikipedia.'
 - ❑ Jimbo Wales, 1st October 2011

Arguments Used by Sceptics (3)

- Wikipedia
 - Astrology is a pseudoscience
 - Scientific tests have been conducted and no evidence has been found to support astrological claims
 - There is no mechanism of action to explain how the positions and motions of the stars and planets could affect people and events on Earth, that does not contradict the laws of physics
 - Stephen Hawking, Neil deGrasse Tyson and Theodor Adorno have spoken against it
 - Cognitive bias
 - No census among astrologers about what astrology is
 - Astrologers make vague untestable statements
 - Astrologers were unable to predict the existence of Neptune.
 - Pluto is no longer a planet
 - New celestial bodies have been discovered
 - Astrologers have only a small knowledge of astronomy and often do not take into account the precession of the equinoxes. They use the tropical zodiac to avoid the problem and make reference to the Age of Aquarius
 - Some of the practices of astrology were contested on theological grounds by medieval Muslim astronomers

Why do people still believe it?

- AA Blog
- Guardian Blog
- Wikipedia
- Who is to blame?
 - Brian Cox – Huw Wheldon lecture -> the media
 - Education
 - ‘Europeans, Science and Technology’, EU (2005)
 - *The Role of Astronomy in Society and Culture*

Polemics and Technology

- The Internet and Democracy

- Everyone has a voice

- Blogs

- 'Astrology is rubbish'

- Wikipedia

- Arguments online

- Contested space

'Wikipedia is **the** resource of information on astrology and nothing does, nor can, compare with its influence upon the public perception of astrology. There can be plenty of reliable information published elsewhere, but all of you know that whether you hate it or not, you all use Wikipedia as a quick and convenient resource. So does the rest of the world.'