

A Critical Discourse Analysis of PlanetPlanet Blog

Introduction

The existence of extraterrestrial civilizations has been an infamous topic for centuries. The Pentagon's recent confirmation of Unidentified Aerial Phenomena footage has rekindled society's obsession with the topic (Aratani, 2021). Previously, academics pigeonholed the idea of extraterrestrial civilizations in fiction, ostracizing any academic who seriously considered their existence. This has been a common trend amongst the scientific community which has prevented any serious discourse regarding the topic; leaving it to sci-fi authors and heretics to debate. However, 'Oumuamua, a peculiar interstellar object, stopped this trend. Harvard Professor Avi Loeb, after months of studying the object, non-conformally concluded that it is unlikely a phenomena scientists are aware of and was possibly artificially created by extraterrestrials. Although Loeb's paper had ample data and interpretation, many members of the scientific community quickly disregarded his findings solely for the word 'aliens'. One of which is Sean Raymond, an astrophysicist who detailed why Loeb was wrong in his 'PlanetPlanet' blog. His post entitled '*Oumuamua: was it aliens? (spoiler: no)*', restates several of Loeb's arguments and hastily debunks all of them. Reviewing this discourse is necessary to understand how conservatism and politics within the science community can damage the discussion of new and important ideas. Critical discourse analysis is a tool which reveals the political, social or cultural nuances underlying a piece of discourse by analysing the author's usage of language (Paltridge, 2012: p186). This tool will be employed to analyse the modality, subtleties in argument, tools used to undermine claims, and the medium in which Raymond's argument is presented; illustrating the general myopia hindering effective discourse of certain topics (Huckin, 1997).

Modality of Raymond's Writing

Examining the modality of Raymond's blog posts reveals his biased attitudes towards the topic. One indicator is his selective use of certainty and hedging. Whenever discussing alternatives to what 'Oumuamua could be, Raymond uses a high degree of uncertainty. "There is no universally accepted answer, but signs point toward 'Oumuamua being similar to Solar System comets." (2019: line 193). Admitting that 'there is no universally accepted answer' is a hedging phrase which reflects how contentious 'Oumuamua is. Most of its characteristics are debatable, however, as soon as aliens are involved, Raymond seems to use a high degree of certainty. This reflects that, to Raymond, the idea that aliens do not exist is tacit which causes his reasoning to seem flippant. When discussing 'Why is it ('Oumuamua) so stretched out?' Raymond begins the next four arguments with 'maybe', indicating the lack of concrete reasons to the question (2019: lines 88-95). Even so, Raymond does not entertain the idea that it could be aliens. "It's an unsolved problem. But the idea that we need aliens to solve it is like saying that we should wait for aliens to cook us dinner. Come on, people, we can do this ourselves!" (2019: line 96-97). Raymond's selective use of certainty is misplaced and taken for granted. Indicative of Raymond's certainty, there is little evidence for 'Oumuamua having alien origin but there is equally little evidence to suggest it is a comet or asteroid. As a result, Raymond's inconsistent use of certainty, coupled with his subjective self-evident beliefs, produces a counter argument that is heavily reliant on appeals and is noticeably biased.

Evaluating Raymond's Argument

Raymond's direct method of contention is to argue against every point made in Loeb's scientific paper. 'In this post I will discuss how **all** (emphasis mine) of 'Oumuamua's

characteristics can be explained without aliens.”(2019: line 34). Even though Loeb’s theory may be an ‘extraordinary claim’, appealing to Loeb’s authority as a Harvard scientist infers that not all his data and interpretation is incorrect. Thus, disregarding all of his paper because of his final claim can be considered an argumentative fallacy. Swale (2007: p39) deems this fallacy a ‘Straw Man argument’; which is an argument that focuses on a drawback, or an incorrect part, of a theory and uses it as a means to disregard all of it. Raymond’s entire blog post embraces this line of argument. According to Raymond, the shape of ‘Oumuamua is the ‘most mysterious characteristic’ of it (2019: line 76). Even so, he disregards Loeb’s suggestion that it is an unnatural object despite equally minimal explanation for its shape having formed naturally. Although Raymond’s claims rely on an argumentative fallacy, argumentation is an essential process for scientific discourse (Erduran, Ozdem & Park, 2016). Thus, improving every theory requires an opposing view. However, Raymond presents his opposing view in a flippant and destructively criticising manner hoping to undermine the theory. Even if the theory is incorrect, this flippancy and absoluteness damages further discussion on the topic. Additionally, he relies on conservative appeals to tradition and popularity. Swale (2007:39) defines these appeals as arguing against change and falling victim to confirmation bias. As mentioned previously, the tradition and popular belief within the scientific community is that aliens are not real. The goal of Raymond’s blog post is to prove this belief and debunk the idea that ‘Oumuamua did have an alien origin. He attempts to debunk a scientific paper with an unscientific argument through his reliance on appeals and attempts to prove something which he believes is tacit. This results in an unconvincing debunking and a poor representation of the opposing view on the theory.

Raymond's Use of Multimedia and Analogies

Raymond uses a range of media and tools throughout his post to flippantly disregard Loeb's claims. Raymond begins the blog with an analogy: "Imagine this. You're drinking your morning coffee. A small blob zooms at top speed through the kitchen, into the hall and out an open window. You only catch a quick fuzzy glimpse before it's gone. What *was* that thing? What's your first guess? A neighborhood cat? A squirrel? Maybe something more exotic like a raccoon or a fox? Or was it ... *an alien*?" (2019: lines 1-5). Swale (2007:44) details that analogies are used to create parallels for argument, with reasoning that what is true in one situation is true to a similar situation. In his blog, Raymond uses analogies as a tool to humorously undermine Loeb's arguments. Stating that 'A parallel story has been playing out in astronomy' entertains the idea that the same type of logic was used to come to Loeb's alien conclusion (2019: line 6). Raymond's analogy is accompanied by a meme (See Figure 1).

Figure 1: Ancient Aliens Meme used at the beginning of Raymond's Blog Post



Playing the role of a sign, this meme is contextually loaded with meaning (Marsen, 2006). The meme utilises hypermedia to refer to the popular show 'Ancient Aliens'. The general associations drawn from the show are that the host uses minimal evidence as reason to

believe that aliens are real and responsible for outlandish feats (Black, 2012). Utilising this meme creates a parallel between Loeb and the Ancient Aliens cast. Although Raymond's use of multimedia and analogies aims to undermine Loeb's argument, it undermines Loeb as well. This can be seen when Raymond utilises hyper-textuality with another analogy. "Our first team meeting took place shortly after those two astronomers (Loeb and his team) cried "alien"! (In astronomy-land this is like the boy calling "wolf".)"(2019: line 20). Raymond's hyper-textual referral to *The Boy Who Cried Wolf* reflects his writer's voice and details his opinion. He believes that Loeb prematurely 'cried alien' on 'Oumuamua and that, like the boy who cried wolf, he was doing it for attention. Raymond uses these techniques to disregard Loeb's claims and infers that the claims were made by someone who wants attention and will make the case that aliens are real with minimal evidence. This subtle defamation can be seen as an Ad hominem technique which Swale (2007:39) defines as criticising a feature of the arguer (Loeb) so that listeners disregard their argument. Assuming that Raymond's undermining collateral damage is intentional, this is a reflection of the overall scientific community's reaction to such outlandish claims. Normally, an experienced academic like Loeb would hold a high degree of power and authority within his field however, as illustrated by Raymond's blog post, making such unorthodox claims quickly diminishes that authority.

Conclusion

Although subjectivity, bias and humour are unwelcome in an academic medium, they are archetypal characteristics of blog posts (Marsen, 2006). This essay revealed that Raymond employs many of these genre-specific mechanisms and characteristics which attribute to his argumentative flaws and fallacies. The medium, being a blog, allows his biases and fallacies to uncontestedly undermine Loeb's claims. The modality, style of

argument, humour among other characteristics in Raymond's blog post would not be permitted in an academic or scientific setting. It is essential that scientists like Raymond do not resort to undermining arguments in this flippant manner based on a conservative agenda. Instead, it is the duty of the scientific community to effectively communicate, discuss and argue all new ideas and theories (Erduran, Ozdem & Park, 2016). However, this process of argumentation in scientific discourse needs to be conducted in an academic and scientific medium. The content of Raymond's blog post would be better suited as a scientific paper. This could allow Raymond to more directly and less flippantly debate Loeb's claims. This would promote balanced, scientific discourse preventing conservatism of thought and allowing radical breakthroughs and change to happen where applicable. This process is necessary for the scientific community to cease the hasty rejection of unorthodox theories which have slowed the acceptance of many ideas in the past.

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