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News

# Edwin Hubble in translation trouble

**Amateur historians say famed astronomer may have censored a foreign rival.**

## Eugenie Samuel Reich

Amateur historians and astronomers are buzzing with intrigue over allegations that the legendary US astronomer Edwin Hubble, after whom NASA's Hubble Space Telescope is named, may have actively censored the work of a competitor to advance his own career.

Professional historians are demanding further evidence, but advocates of the position are already urging NASA to name a future space mission after the slighted researcher.

Hubble is credited with a discovery that paved the way for modern astronomy. In 1929, he published a paper<sup>1</sup> in which he reported on a correlation between the distance of galaxies from Earth and their velocities.

Later dubbed Hubble's law, the correlation shows that the further away a galaxy is, the more its light shifts towards the red end of the spectrum. This redshift implies that galaxies are moving away from the Earth, and later astronomers interpreted it as evidence that the Universe seems to be expanding.

But Hubble was not the first to notice this correlation. In 1927, the Belgian astronomer Georges Lemaître published a paper in French, which gave a theoretical description of the same relationship<sup>2</sup>. Lemaître also used data from others to derive the constant governing the expansion, known today as Hubble's constant. "If you wanted to pick one person who probably deserves most credit for [discovering] the expanding Universe, it would be Lemaître," says Robert Smith, a historian of science at the University of Alberta in Edmonton, Canada.

Historians have long been aware of Lemaître's work, but now claims have emerged that Hubble — or someone sympathetic to him — may have taken active steps to misrepresent Lemaître's contribution to the English-speaking world.

On 6 June, Sidney van den Bergh, an astronomer at the National Research Council of Canada's Dominion Astrophysical Observatory in Victoria, British Columbia, uploaded a paper<sup>3</sup> to the preprint server arXiv, noting that edits to a 1931 English translation<sup>4</sup> of Lemaître's paper seemed to selectively remove several chunks of text discussing the correlation that came to be



Did Edwin Hubble conspire to remove a key variable from the English translation of a rival paper?

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known as Hubble's law. The paper also removes from one equation Lemaître's version of the Hubble constant. Van den Bergh's paper was discussed on 15 June in a blog post on [Forbes.com](http://Forbes.com), sparking interest in the astronomical community.

## Celestial censorship?

Van den Bergh tells *Nature* that he is convinced the editing was intentional, and was done by someone who was keen to prevent Lemaître's calculations from undermining Hubble's priority claim. "Picking out part of the middle of an equation must have been done on purpose," he says.

Van den Bergh doesn't speculate as to who made the change; the identity of the translator is unknown. But David Block, a mathematician at the University of the Witwatersrand in Johannesburg, South Africa, and an amateur historian, claims in a paper<sup>5</sup> uploaded to arXiv on 20 June that Hubble may have had a hand in what he calls the censorship of Lemaître's translation.

Block points out that Hubble was very concerned that credit for the discovery of ADVERTISEMENT the expanding Universe should go to the Mount Wilson Observatory in Pasadena, California, where he had made his observations. He thinks that it would have been entirely consistent with Hubble's known practices for the astronomer to have contacted whoever translated the paper, to try to keep the correlation now known as Hubble's law out of it. While Block is not alleging Hubble necessarily knew of Lemaître's paper in advance, he notes that there were other cases in which Hubble apparently failed to cite his predecessors. Block says such evidence shows that Hubble was prepared to misrepresent the contributions of others.

## Paper trail

Professional historians contacted by *Nature* were cautious, saying that the case for censorship by Hubble is unproven and that his apparent failures in citation — many of which have been known to professional historians for decades — are not necessarily out of line with the acknowledgement practices of the 1920s.

Smith notes that if Hubble actually caused the editing of Lemaître's paper, there should be a trail. "People need to look for evidence of these kinds of claims," he says. "It's one thing to speculate, it's another to prove something."

David DeVorkin, a historian of astronomy at the Smithsonian Institution's National Air and Space Museum in Washington DC, sounds a similar note. "To my knowledge, Hubble was following contemporary standards of citation — which tended to be pretty miserable, compared to the competitive standards of today," he says.

Owen Gingerich, an astronomer and historian of science at Harvard University in Cambridge, Massachusetts, is also unconvinced. "I think it is a bit sensationalist to call it censorship of Lemaître's paper without examining the circumstances more carefully," he says.

That hasn't stopped word of the alleged misrepresentation from reaching NASA, which launched the Hubble Space Telescope in 1990.

Block has written to John Mather, a co-winner of the 2006 Nobel Prize in Physics and a senior scientist at NASA's Goddard Spaceflight Center in Greenbelt, Maryland, to suggest that he look into the possibility of a future 'Lemaître Space Telescope'. Mather calls Block's charges "hot stuff" and was curious enough to make inquiries to historians to find out more. But, he tells *Nature*, he thinks that the US space agency is unlikely to honour the Belgian pioneer any time soon. "Perhaps a European mission would have a better chance," he says.

## References

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2. Lemaître, G. *Ann. Soc. Sci. Brux. A* **47**, 49 (1927).
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It would be useful to note that Hubble was the observer who obtained the critically important data #24667 on galaxies' recessional velocities. Lemaitre, a theorist, could not have obtained that data himself, and thus could not have proved Hubble's Law. It's important not to confuse the vital roles played by both theorists and observers in identifying and understanding the cosmological expansion.

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Posted by: **Craig Heinke** | 2011-06-28 12:30:04 AM

It is important to distinguish between the publication of the redshift-distance correlation and the #24711 publication of the interpretation of this relationship — i.e., understanding its meaning (that the Universe is expanding!) should be considered the greater scientific achievement. If Hubble arrived at this interpretation first, then that is the greatest achievement, not the publication of some correlated data points on a graph, which happens every single day in scientific papers.

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Posted by: **Kirk Borne** | 2011-06-28 06:44:53 PM

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