



Satirising science: the politics of nitrous oxide

Not all artists were as impressed by scientific spectacle as Joseph Wright. As the 18th century turned into the 19th, the satirist James Gillray attacked science among the many features—from political to personal—that he thought wrong in contemporary society.



Scientific Researches! - New Discoveries in Pneumaticks! - or,
an Experimental Lecture on the Powers of Air, by James Gillray, 1802
Science Museum Group Collection

In 1802, Gillray **published** a satire on London's newest scientific establishment: the Royal Institution founded in 1799. It shows a scene not unlike Wright's, but here the audience **has grown**, filling the RI's lecture theatre with fashionable people, and the science being observed is the latest pneumatic chemistry.
Thomas Garnett and his assistant Humphry Davy are administering nitrous oxide (now better known as laughing gas) to a participant. The spectators register emotions ranging from laughter to disgust as the experiment results in an unfortunate expulsion of air.
Gillray is clearly making the most of a fart joke, but he is also responding to broader contemporary criticism and fear of such nitrous oxide experiments. Humphry Davy, who Gillray portrays gleefully holding a pair of bellows, had made nitrous oxide famous with his recent experiments at the Pneumatic Institution near Bristol, run by Thomas Beddoes.
There, Davy and Beddoes invited a circle of friends to test the possible curative effects of nitrous oxide, thought poisonous until Davy experimented on himself. Their circle included the romantic poet Robert Southey, who rhapsodized about the exhilarating effects that nitrous oxide was found to produce:

> Such a Gas has Davy discovered! … it made me laugh & tingle in every toe & finger tip. Davy has actually invented a new pleasure for which language has no name … it makes one strong & so happy! … oh excellent air bag … I am sure the air in heaven must be this wonder working gas of delight. *(Letter from Robert Southey (13 July 1799))*

Unfortunately for Davy, Beddoes not only spent his time on gas experiments but also engaged with radical politics. The 1790s saw conservative commentators react vehemently against the recent excesses of the French Revolution, with many fearing it would spread to Britain. Beddoes, as well as another well-known pneumatic expert, Joseph Priestley, both publicly supported the revolution and its political consequences.



Commentators therefore began to equate gas experiments with these dangerous politics. Edmund Burke used notably chemical metaphors to compare the political 'experiment' and dangerous excesses of the revolution with the 'fumes' or 'spirits' of enthusiasm for pneumatics shown by men like Beddoes.
Gillray makes similar play with metaphors of 'hot air' in his print. Such attacks led Davy to curtail his gas experiments after his first two years at the Royal Institution, so that the anaesthetic properties of nitrous oxide would not be picked up for decades.
Not only does Gillray capture the broader social and political implications of nitrous oxide for his contemporaries, but his satire actively played a part in ending that period of research.

https://www.sciencemuseum.org.uk/objects-and-stories/sociable-science#&gid=1&pid=1

1. Preterit vs. Present perfect

Look at the following excerpt from the text and draw conclusions about when to use the present perfect and when to use the preterit.

> In 1802, Gillray **published** a satire on London's newest scientific establishment: the Royal Institution founded in 1799. It shows a scene not unlike Wright's, but here the audience **has grown** **[…].**

Conclusions: ……
……

Now translate the following sentences, resorting to the preterit, the present perfect or the pluperfect.

1.Presque un demi-siècle s'est écoulé depuis que je l'ai vu pour la dernière fois.
……
2.Le directeur des ventes vient d'être congédié par son entreprise dont le chiffre d'affaires chutait depuis près de quinze mois.
……
3.Il fut élu en 1986 et siège au Parlement depuis lors.
……
4.Les conservateurs sont revenus au pouvoir en 1951 et l'ont gardé pendant treize années ininterrompues.
……

Adapted from *Optimum : Le thème anglais grammatical en fiches*, Cécile Loubignac.

2. Not only…

Consider the sentences and explain how to use the structure "Not only … but" in both cases.

Beddoes **not only** spent his time on gas experiments **but** also engaged with radical politics.
……
Not only does Gillray capture the broader social and political implications of nitrous oxide for his contemporaries, **but** his satire actively played a part in ending that period of research.
……

3. "Criticism" et al.

Fill in with the right word and tell the difference between them.
"Critic" or "critical" or "a critique" or "criticism"?

There was …..... of the book in yesterday's *Economist*.
The …..... who wrote that review clearly disliked the book.
We don't get on well: he is too …..... of all I do.
He cannot bear …..... .
I need to read some literary …..... .
We have reached a …..... stage in the negotiations.

4. Express yourself

a. Do you think science should be linked to politics? Find arguments in favour and against.
b. If you had to satirize an experiment in science or a technological innovation, what would it be and why?