

## ***What's funny?***

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**Abstract:** Science education sometimes seems quite dry and humourless; however, there are opportunities to add some entertainment to science in the classroom. The National Park Service often posts to social media a blend of science with the humour that comes from ordinary people, animals, photos captured at key moments, and popular culture. These posts can inspire curiosity and lead to discovery by those who delve into their topics. Both scientist and non-scientist views align to explain the popularity of these contemporary general science outreach efforts.

**Résumé :** Les cours de science semblent être sans bonne humeur; toutefois, c'est possible de discuter la science avec un peu de légèreté. Le National Park Service des États-Unis affiche à Instagram des publications pour renseigner tout le monde au sujet de leurs parcs nationaux. Mais ces publications sont composées d'un mélange de science et des contes amusants des gens ordinaires, des animaux, des photos, et des événements récents. Ces publications aux médias sociaux pourront attirer l'attention des lecteurs. Ensuite, c'est possible que les lecteurs sentent encourager de rechercher et de s'instruire au sujets des publications. Divers auteurs sont d'accord: un peu de bonne humeur rend ces publications de science d'Instagram très populaires.

**Keywords:** humour, science education, national park, Instagram, pen

We have probably all had the experiences of telling a joke that didn't 'land' properly for our audience and also of hearing a joke that didn't 'land' properly for ourselves. It was recommended to me by my mentors, and I continue to recommend to others, to generally avoid humour in educational settings. The general concern is that without

context, something we think is funny might not be appreciated by the recipient of our e-mail or by a student sitting in the classroom, and then we have a major problem on our hands – we have to find some socially acceptable way of backtracking or moving forward, despite or due to the power imbalance inherent in the classroom. Even without any hurt feelings or worse, humour might detract from the serious business of learning that is supposed to be happening (Sudol, 1981); for example, one might retain a clearer memory of one's professor throwing a chair across the lecture hall than of the course content that was covered that particular day. So it is generally considered best to just be serious in the sciences.

One of the more famous scientists of the 20<sup>th</sup> century, however, devoted an entire book to jokes. Isaac Asimov (1991) confidently stated on the very first page of his joke anthology “that the one necessary ingredient in every successful joke is a sudden alteration in point of view” (p. 1). At its foundation, Asimov (1991) believed that humour occurs when we put a new spin on something that is a given or taken for granted. For example, Asimov (1991) noted that we have a “natural progression of thought designed to make a solemn impression” (p. 4); for example, we tend to list in increasing urgency a number of unfortunate events (Asimov, 1991). What's more, however, is that Asimov's advice for his readers implies that the goal is ultimately connection. He clearly states that “[a] joke is a social phenomenon; an interaction among people ... it breaks down reserve, eases tension, establishes contact” (Asimov, 1991, pp. 2-3). Increasingly, however, there seems to be a decrease in society's consensus on what is seen as a natural progression, or what is a given. People within even a small friend group can have so many different priorities, practices, and backgrounds, any aspect of which can make someone's attempt at humour reinforce reserve, increase tension, and distance friends from each other.

Paul Feyerabend (1993) had harsh words for science education in general and the humour that accompanies scientific endeavours in particular. For example, Feyerabend (1993) referred to “the inbred and always rather nasty kind of jocularity one finds in specialized professions” (p. 11) in his reflections about education in the sciences. There is certainly a danger that those who have very narrow pursuits could be guilty of a sense of humour that excludes anyone without understanding of those same narrow pursuits. C. S. Lewis (2001),

possibly writing from the point of view as the academic he was, referred to flippancy as “the [j]oke is always assumed to have been made...every serious subject is discussed in a manner which implies that [the joke-teller and listeners] have already found a ridiculous side to it” (p. 56). Lewis’ view of flippancy complements Feyerabend’s view of scientists burrowed into their disciplines: outsiders could not possibly appreciate the intricacies of a discipline and therefore are also excluded from enjoying its jokes. While we might dismiss both Feyerabend’s and Lewis’ views since these men are not, strictly speaking, scientists, Asimov (1991) manages to make things worse by recommending that, among other things, in telling jokes “[t]he general rule is: [l]et stereotypes work for you.” (p. 13) Wait...what?!

The National Park Service (NPS) on Instagram first came to my attention circa 2023, with a post featuring a pen on the left and a snake, the latter somewhat coiled but approximately pen-sized, on the right (National Park Service, 2023f). The written part of the post begins by describing the pen, then breaks the fourth wall with the realization that the post ought to have been about the snake. The post then provides actual snake-related information before reverting to jokes about the pen, even completing its post with a list of hashtags ending with “#pen”. This social media post is a perfect match for Asimov’s description of what humour is; namely, handling a scientific image in an unexpected way with the focus on the pen and not the snake, and it even ends as Asimov recommends, with the hashtag pen anticlimax (Asimov, 1991). Better yet, it avoided the worst of Feyerabend’s concerns since the NPS made their post the way Feyerabend (1993) saw and believed the history of science should be: “as complex, chaotic, full of mistakes, and entertaining as the ideas it contains, and these ideas in turn [are] as complex, chaotic, full of mistakes, and entertaining as are the minds of those who invented them” (p. 11).

This NPS post inspired me to create an in-class scientific writing assignment. To begin, my exercise asked students to list the “things” in the image, then to suggest the main reason for the photograph being taken. Once students committed to their own scientific views of the image, I provided them with the text of the NPS post itself. It should come as no surprise if students assumed that the pen is in the photo to put the size of the snake in perspective – in fact, it would be surprising if a student wrote a pen-centred analysis of the photo in a

science classroom setting. My questions continued by asking students to guess at what is fact and what is fiction in the post – and even what is scientific or not. For example, the post’s assertion that the “pen [is] capable of writing continuously for one mile” (National Park Service, 2023f) is scientifically measurable and therefore could be established – or not – as fact, as is “when the weather gets warmer, more snakes may start to make an appearance” (National Park Service, 2023f). This latter fact is almost a public service announcement, for anyone visiting a national park yet wishing to avoid an encounter with a snake. Tangentially, the statement “the pen ... belongs to the park, not the snake” (National Park Service, 2023f) is also factually true, but is not really relevant from a scientific point of view. In contrast, the statement that the snake is writing a book is certainly fiction (National Park Service, 2023f). Instagram members’ comments about the post were fodder for further scientific analysis in the classroom setting. For example, the comments section gives a perfect example of a circular argument (Weston, 2017) when one Instagram member asked “How big is the pen?” (National Park Service, 2023f) and another member’s response was “about one snake long” (National Park Service, 2023f). In contrast, useful park visitor information was obtained from yet another Instagram member’s question “[a]t what size does a Danger Noodle upgrade to a Nope Rope?” (National Park Service, 2023f), when the NPS responded “[a]bout five pens” (National Park Service, 2023f).

There are many reasons to fear or dislike snakes – perhaps someone who has been bitten in the past has no wish to encounter snakes again under any circumstances, even in an online image. Therefore, it is entirely possible that anyone with an antipathy towards snakes could simply scroll past this post, perhaps even taking a moment to unfollow the NPS to prevent future online snake encounters. However, it is also possible that someone who had enjoyed other NPS posts might take the opportunity to give snakes a second chance, thanks to the humour involved. Other NPS posts feature a collection of entirely black images as if photos had been taken inside caves (National Park Service, 2023d), a photo of a banana as a non-metric unit of measurement (National Park Service, 2023b), a poster admonishing visitors not to “pet the fluffy cows” (National Park Service, 2022) i.e. bison, and one requesting visitors not break up (their relationships) while on a guided tour within a national park

(National Park Service, 2023a). In each case, there were many, many comments demonstrating people's enjoyment of and building on these jokes, jokes about the science, safety, or history associated with various national parks. The NPS is on to something: the natural world provides an endless amount of entertainment, between the animals, the locations, and the people who visit them. Add a touch of popular culture or current events and suddenly a porcupine – an animal you may have never seen before in person – is forever linked to Weird Barbie in your mind (National Park Service, 2023c). The many responses to NPS posts speak to Asimov's assertion that jokes are "a social phenomenon; an interaction among people" (Asimov, 1991, p. 2). And yet even as they draw people together online using humour, the NPS knows that not all topics are humorous; for example, the post accompanying a photo of a fawn curled up in the shadow of a tombstone at Andersonville reflected on military service and recognized veterans (National Park Service, 2023e), with none of the humour that characterizes most of its other posts.

It is also worth exploring why we intrinsically see a pen as a non-metric measuring device and the snake as the focus of the NPS post image (National Park Service, 2023f). Pens don't really seem sufficiently scientific, perhaps, or snakes are more dangerous and more worth exploring. Or maybe studying the sciences has conditioned students to see a pen as a static, controlled variable and a living thing such as a snake as a responding variable, capable of growth and change. Therefore, perhaps a snake is immediately seen as something from a biology class, whereas a pen is at least one engineering step removed from a chemistry class. And yet, we usually see pens made of metal, plastic, or both, and their inks would be a carefully compiled mixture of chemicals, and some of these materials are considered sufficiently dangerous to merit a Safety Data Sheet. For example, a green marker pen reviewed by Ambersil warns users about the ortho-xylene and titanium dioxide in the pen's ink, should that ink be encountered *en masse*; the pen itself is not of concern (Ambersil, 2024). Alternately, a ballpoint pen refill's Safety Data Sheet (Pilot, 2017) specifies benzyl alcohol and 2-phenolyethanol, with additional chemical components implied but listed as trade secrets. Would the average viewer's concern about the pen exceed that of the snake if people knew the pen contained secret chemical ingredients?

Anyway, to complete my preparations for the snake/pen/Instagram in-class exercise this year, I started to build a slide deck to introduce the topic of visuals in scientific writing. I found myself searching for a supposedly famous quote by Isaac Asimov that runs along the lines of ‘science is rarely about people running down the street shouting “Eureka!” but more about someone noticing something odd and saying “that’s funny”’, where ‘funny’ means in odd, unusual, or unexpected in this context. Turning to the internet for help, one of the first hits the algorithm gave me was Quote Investigator, who informed me that there didn’t seem to be any attribution of a quote of this type to Isaac Asimov (O’Toole, 2023). Instead, O’Toole (2023) found a similar line in Science Journal, by Gordon Rattray Taylor. The quote is as follows:

THE POPULAR PICTURE of the scientist is of a man who is visited by a flash of insight and cries, in effect, “Eureka!” Or, more modestly, as a man who notices something others have ignored and mutters “That’s odd.”

To be realistic, however, the successful scientist often seizes on a new tool or a new technique and applies it sooner than anyone else. (Taylor, 1965, p. 32)

The bottom line is that in building a few introductory slides to introduce a scientific humour activity to my students, I learned that a line commonly-attributed to a famous scientist was in fact never his (O’Toole, 2023). Moreover, the entire point of the original supposed quote was that scientific endeavour tended to build from the oddities that people noted, when instead the point of the actual quote is quite different in that it attributes success to early application (Taylor, 1965). I found the quote attribution tables had been turned on me while I was writing an exercise designed to turn the scientific visual data tables on my students. And if this isn’t funny, I don’t know what is.

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