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# How blind reverence for science obscures real problems

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By [Aaron Hanlon](#)

When Rep. Alexandria Ocasio-Cortez (D-N.Y.) recently [pointed out](#) that algorithms can be racist, she [drew criticism](#) from Ryan Saavedra, a writer for the conservative website the Daily Wire. Saavedra mocked her, arguing that she was suggesting math, which drives algorithmic calculations, is racist. In practice, algorithms [absolutely can produce racist outcomes](#), regardless of the math that empowers them. And yet, as this example shows, it's all too easy to assume the truth and authority of something dressed up in the clothing of scientific objectivity.

That mistake is only intensified when we stop thinking critically and rely solely on mathematical and scientific authority to [understand our world and our humanity](#). Nevertheless, this very error has led to academic controversies every bit as telling as the political ones.

In October, an independent scholar, an online magazine editor and a philosophy professor set out to show that academic journals would accept nonsense, so long as it flattered a “social justice” bias. To that end, they sprung a [hoax](#) on a bunch of unsuspecting academic journals, fueling public criticism of academia, especially the humanities. James Lindsay, Helen Pluckrose and Peter Boghossian wrote 20 intentionally absurd articles, some of which included made-up data, and submitted them to journals in interdisciplinary gender and race studies fields. They ultimately scored seven acceptances out of 48 submissions to 29 journals.

The conversation around the stunt has mostly focused on the hoaxers' accusations of liberal bias. Ultimately, though, another element of their stunt is more revealing: Five of their 20 hoax submissions featured fabricated data, leading to an acceptance rate of about 60 percent for papers with faked data and 25 percent for papers without. By aiming to deceive academics with fake data dressed up as empirical study results — and not just jargon-y nonsense — the hoaxers undermined both their own claim that political bias drives bad scholarship and the wider public perception that political bias drives research outside the sciences. Instead, they arguably revealed that we're far too deferential to the mere idea of science.

Much of the public squabbling between the humanities, sciences and social sciences — or what Harvard psychologist Steven Pinker [calls](#) “the intellectual war on science” — comes down to a basic misunderstanding known as scientism. Scientism is the untenable extension of scientific authority into realms of knowledge that lie outside the scope of what science can justifiably determine. It's the idea that every aspect of our lives is better explained by science than by any other form of inquiry.

For example, science produces the knowledge required to develop artificial intelligence software that can replace human [judges](#) in the courtroom, and measuring and modeling the performance of AI

judges can give us useful facts. But the question of whether AI judges *should* replace human judges is a complex civic and moral question, one that is by definition informed but not conclusively answerable by scientific facts. It's here that observations like Ocasio-Cortez's become so important: If racist assumptions are baked into our supposedly objective tools, there's nothing anti-scientific about pointing that out. But scientism threatens to blind us to such realizations — and critics such as Lindsay, Pluckrose and Boghossian suggest that keeping our eyes open is some sort of intellectual failing.

The [influence](#) of scientism on our economic and policy choices has begun to [shift the border](#) between the sciences and the humanities, such that efforts to explain aspects of our lives through any other means but science are now dismissed. The hoaxers embrace this stance, writing, “Something has gone wrong in the university — especially in certain fields within the humanities. ... This worldview is not scientific, and it is not rigorous.” To be clear, the scope of scientific authority *should* expand as scientific knowledge does, but that doesn't mean questions that can't be answered by scientific facts alone should be subjected to scientific authority alone. To do so would mean not only excluding better explanations for lived reality, but also undermining science itself by setting it up for failure.

Most of us intuitively understand the difference between biological sex and cultural notions of gender, for example. We know that our biology is a matter of science, even when biological sex [isn't binary](#), but that cultural explanations, such as historical gender roles, advertising or institutional habits and norms all help [explain](#) why, for example, we [associate pink with girls and blue with boys](#).

Scientism, however, encourages us to ignore these cultural, historical and institutional explanations, dismissing them as anti-scientific, even when they don't actually contravene scientific fact. For example, the [claim](#) "science says gender is not a social construct" rightly identifies ways that biology organizes aspects of gender, but it [doesn't mean that gender is binary](#), or that there are no social aspects of gender, like gender roles and fashions, which change over time and across societies. These can be usefully explained and better understood by situating them in cultural and historical context and [not simply by reducing them to biology](#). Scientism is destructive because the humanities and sciences should be able to build knowledge together, offering compatible explanations.

So what does the latest hoax tell us about the extension of scientism into academic fields that aren't reducible to purely scientific explanations?

Part of the answer lies in a prior hoax, perpetrated by New York University physicist Alan Sokal in 1996. Sokal got an article laden with nonsensical jargon and specious arguments accepted at *Social Text*, a leading (though not peer-reviewed) cultural theory journal. The infamous "Sokal Hoax" was instructive, too, because, as *Social Text* editors Bruce Robbins and Andrew Ross [explained](#) after Sokal went public about his actions, they didn't accept his article out of

fealty to its politics or its jargon, but rather out of trust in — perhaps even reverence for — an eminent scientist's engagement with cultural theory.

Remember that the more recent hoaxers didn't just content themselves with verbal nonsense (as Sokal did); they also faked data, and not in a way that reviewers should necessarily dismiss without a good reason to do so. Columbia University sociologist Musa al-Gharbi found that the hoaxers' "purported empirical studies (with faked data) were more than twice as likely to be accepted for publication as their nonempirical papers," which lends support to this possibility. It's entirely possible that reviewers took these submissions seriously *out of respect for scientific conclusions*, not out of anti-science bias. This would also align with broader research showing that political ideology is not actually what causes people to distrust science.

Indeed, one of the liabilities of interdisciplinary gender studies journals like those that fell for the hoax is that, as I've argued, they're actually not humanities journals, nor are they strictly social science journals. As such, they conceivably receive submissions that make any combination of interpretive claims, claims of cultural observation, and empirical or data-based claims. For all of their potential benefits, these interdisciplinary efforts — which have analogues in the humanities as well — also run into methodological and epistemological challenges precisely because of their reverence for science and scientific methods, not because of anti-science attitudes.

In the end, the hoaxers' own conflation of interpretive and factual claims undermined their accusations of political bias and anti-science attitudes among gender studies researchers. Remember that their papers with invented statistics were accepted at more than twice the rate of those without them. When faking data is the most effective way of tricking academics into accepting nonsense articles, scholars in humanistic and interdisciplinary social science fields are indeed at fault. But the nature of this fault is not quite what the hoaxers claim. If the hoax shows anything, it's that uncritical reverence for ideas clad in scientific clothing — or a desire to be “scientific” to diffuse the pressures of scientism — is at least as much a problem as progressive political bias in gender and race studies fields.

In actual fact, “social justice” jargon wasn't enough — as the hoaxers initially thought — to deceive, but sprinkling in fake data did the trick better than jargon or political pieties ever could. Like Ocasio-Cortez's critics, who trust too easily in the appearance of scientific objectivity, the hoaxed journals were more likely to buy outrageous claims if they were backed by something that looked like scientific data. It's not that the hoax was an utter failure, nor that we shouldn't worry about the vulnerabilities it exposed. It's that, ironically, scientism and misplaced scientific authority actually contribute to those vulnerabilities and undermine science in the process.

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