Extra, extra, read all about it

There are many misconceptions about science journalism. We aim to provide some clarity on how journalists work and how to give interviews about your research.

ou have passed peer review, polished your manuscript, signed all the forms and checked the proofs. You can finally breathe a sigh of relief; the paper is done, and being published next week. Then, an e-mail from a journalist requesting an interview about your work lands in your inbox, striking fear in your heart.

Scientific concepts are complex and can be difficult to describe in nontechnical terms. New results are presented with statistical confidence metrics and discussions of limitations. These subtleties can be a challenge to translate, and so it is not surprising that many scientists fear talking to — or are outright distrustful of — journalists.

When a journalist comes calling, however, wise scientists will take the time to answer their questions. This has personal benefits: bringing attention to your work can raise your reputation, translating to increased career success. The attention can also benefit your research area, perhaps resulting in increased funding opportunities or accelerating new developments. News stories are the main way that the broader scientific community and the general public are educated about research advances. Scientists who take the time for interviews with journalists can help ensure that new discoveries are more accurately reported.

Encouraged, you press reply to write a response to the journalist...but then you hesitate. Your university put out a press release, will people not just read that? The goal of a press release is to publicize new work in order to attract the attention of journalists, who may use press releases as news sources. Savvy news readers, however, will recognize press releases as promotional pieces, which do not carry the same weight as stories based on balanced reporting. A main role of a journalist is to inform and educate their audiences by actively choosing to report stories based on potential interest and importance. Their task is to question and interrogate, not to summarize, cheerlead or promote.

You perk up a bit, a news outlet thinks your work is interesting and important for their readers! But what will you say to the journalist? Will they understand what you are talking about? Will your work be misrepresented? Journalists working the research beat may or may not have scientific

training, but they are highly trained in responsible reporting. They are likely to be familiar with many scientific concepts, terms and jargon. Still, it is a good idea to take some time to prepare for an interview, to think about how you can present your research in simple terms; using analogies can be particularly helpful. Also consider the publication's readership — whether it is read by a scientifically sophisticated audience or the general public.

Will you be recorded? Yes, a journalist is very likely recording the interview. They do this to keep a record of what was said, and to ensure that they can capture direct quotes accurately. Different states and countries have varying consent laws, so the journalist may not be required to tell you that you are being recorded. They will consider anything you say to be fair game to report, so be mindful of how you present your work in comparison to competitors, for example, or of disclosing confidential information, such as work in progress with a collaborator. However, an ethical journalist should never attribute something to you if you tell them that it is 'off the record'.

Different publications have different practices regarding accuracy checking. Some publications allow or even encourage their journalists to check quotes with their sources; other publications frown on this. Journalists are never under any obligation to share their full stories with you prior to publication; if you ask, you are likely to receive a resounding 'no'. If you believe there is a factual error in a published news piece, contact the journalist. What happens next, depends on many factors. A lack of a citation to a scientific paper, for example, is not considered to be an error, as news pieces are not scholarly publications.

News stories about scientific research are constructed in a very similar manner to an article one might read in the *New York Times* or the *Guardian*, for example. A science journalist's approach is likely to include both reading of scientific papers and interviews with various people — the authors of the work, yes, but also other experts in the field, colleagues, friends or competitors. A good news piece is based on multiple interviews to achieve balanced reporting. News pieces, including longer, feature-type pieces, however, are never intended

to be comprehensive, and details may be somewhat vague.

But wait...what about the journal's press embargo? Is your paper in jeopardy if the journalist publishes their story early? Researchers need not stress about the embargo policy; the key thing to know is that you should not actively solicit media coverage of your work more than a week before the publication date. Many publishers, Nature Research included, will send out a press release about a week before a paper is scheduled to be published. If you are the author of a paper under embargo for publication the following week, it is fine at this point to grant an interview to a journalist. If you are asked to comment on someone else's work, this is also fine. Journalists know the rules about embargoes and are well aware of the risks they face to their own careers when they break them.

Press embargoes were originally developed to maximize the impact of a new scientific discovery, to ensure that only research vetted through peer review would be presented to the public, and to ensure that journalists would have time to report on stories accurately. The intent of the embargo has never been to inhibit communication among scientists. In fact, Nature Research actively encourages presenting unpublished research at meetings, posting on preprint servers, blogging and tweeting, all of which can serve as an important complement to the traditional peer review process.

Journalism is not perfect, but in democratic countries, freedom of the press is paramount to a functioning society. It is a major way that politicians, public figures and companies are held accountable for their actions. The press provides an independent check, and this is no different for scientific reporting. In this day and age, when even presidents of countries dismiss venerable news organizations as producing 'fake news' and cause public mistrust in journalism, it is worth remembering the crucial supporting role that journalists play in scientific communication.

Finally, you tap out an e-mail agreeing to an interview and press 'send' with confidence. You can do this!

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