6.4 Constructing a narrative for mass media

Formalising and scoping a message for mass media depends on what form of media you are dealing with, and how much space (in the case of a written article) or time (in the case of an interview) you are given to present it. However, there are some common rules to all media content to keep in mind to help ensure that your message is understood by as many people as possible. These are to:

- **Keep it simple.** Talk in non-technical language wherever possible.
- **Keep it on point.** Define and discuss a narrow scope and don't stray from this narrative, ideally identifying one key point you know you need to make.
- **Be clear**. Do not make vague statements and don't use ambiguous language.
- **Be accurate**. Make sure you have researched what you are saying and you know what you are talking about (otherwise why are you doing it?).

The most important thing you must keep in mind is that you must be careful that a journalist, reader, or viewer cannot pick and choose something you are not happy to say from your press release, article, comment, or interview. You may hear of people who have been aggrieved because they were misquoted or misunderstood in the press. In science, this is perhaps rarer than in a field like politics, where debate is often concerned with attitudes and viewpoints as they evolve. But contentious and emotive debates do surround science—take anthropogenic climate change, for example. Editorial policy may direct the context of how you might be quoted or questioned. However, much of the time any misunderstanding may be completely unintentional and due to an unbiased journalist simply not understanding what it is you are trying to tell them. Your job is therefore to minimise the risk of misunderstanding by carefully constructing any quote, article, or press release, and (where possible) taking the opportunity to first discuss your story with the press office, journalist, or producer informally so that you each have the chance to make sure there is a mutual understanding of the facts and the tone.

It is extremely rare that you will be led into a false sense of security and understanding only to be later thrown to the wolves through unexpected or off-topic lines of interviewing. This happened to Grant only once. He agreed to be interviewed live on a radio station about the impacts of volcanic ash on aircraft after a volcanic eruption in 2010. He was fielding so much media attention at the time that after a very quick telephone call with a polite producer telling him he would be interviewed about the science of volcanic ash in the atmosphere, he found himself personally accused (live) of being responsible for grounding aircraft over Europe and inconveniencing the lives of thousands. Without any chance to reply, the phone was put down and he never heard from the producer again. In this specific case, the producer may have just been looking for anyone that the radio presenter could have a one-way rant at. The station certainly weren't interested in a meaningful interview. Pretty much all Grant said was 'hello'. And they certainly didn't bother to find out if he was the right person to interview for what they wanted to talk about. In order to mitigate the risk of something like this happening to you, always do your own background check on the TV channel, radio show, presenter, or newspaper before diving in. And make a judgement about the chances of being allowed to present the message that you want to get across. If you find yourself faced with an interviewer, panel member, or audience question where your viewpoint or science may be attacked, it is always important to remain calm and objective, no matter how unnerving this may seem. It helps to remember that the more mainstream mass media in many countries is ostensibly concerned with open debate and public interest, and that open debate is best served through a rationalised discussion of facts from the viewpoint of the researcher. The approach of more politically-biased mass media and the rise of so-called 'fake news' can make such discourse very difficult, but our duty is to call this out where it is seen and passionately (but honestly) defend objectivity and fact. While heated debate and personal accusation can make for exciting reality television, for example, scientific debate is rarely convincing or useful to anyone when it strays too far from objective reasoning. In this scenario, it is more important than ever to remain focussed on a discussion of

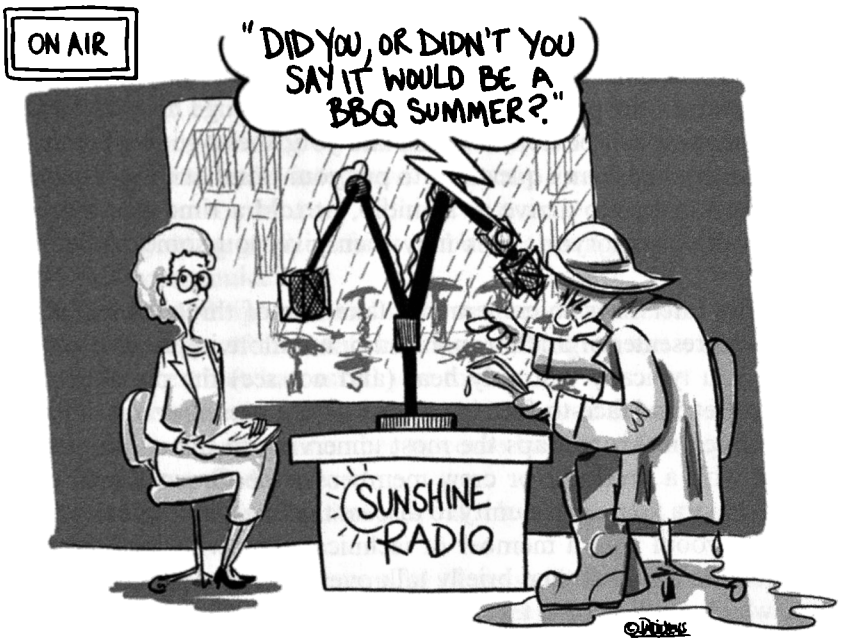
the facts as you understand them and not to be drawn into a wider discussion where you may not be qualified to speak. A calm and professional demeanour is always preferable while getting any message across. This is especially true when being asked for a personal opinion on a politically-charged subject. Scientists are trusted for their skill in objective reasoning and for their honesty. Straying too far into personal opinion is not consistent with such values unless that opinion is properly weighted in the context of scientific consensus, or grounded in one's own research.

It is important to emphasise that the vast majority of our dealings with the press have been overwhelmingly positive. Most journalists will take the time to make sure that they understand any story from your point of view and give you a chance to comment or change anything they write or present. Often, the more serious and professional media organisations may even go a step further and check that what you have said is accurate by consulting other sources, and you may even be asked to reconfirm your story. Only rarely may you be asked to speak or comment without having a chance to discuss the detail of any interaction in advance, even when preparing for live interviews. And most importantly, if you're not comfortable or confident that what you have to say will be accurately presented, you should say so and withdraw from the process.

Now that you have decided that you want to engage with the mass media, how do you go about constructing an infallible and accurate quote or story for their consumption? There are a number of common steps you should take to prepare beforehand, whether your means of engagement is live, recorded, or written. You need to break down the information you want to convey into simple and self-contained blocks and define (at least to yourself) where your story begins and where it ends, so that you don't veer off topic and end up talking about aspects for which you are not qualified to discuss professionally. And if you ever do mix personal conjecture and scientific fact, you should be very clear to point out which is which. Much like in the Q&A session of any scientific conference presentation (see chapter 4), don't try to answer a question that you don't know the answer to.

Here are some useful tips to use when preparing any content (including an interview) for the mass media:

1. Write a mock press release, whether you intend to submit it or not (see previous exercise). This is useful even if preparing a written article for a scientific magazine. It will help you to formalise your thoughts and present them in non-technical terms.
2. Try to read your press release from the point of view of a non-expert. Ask a non-expert for help if you have the time. Identify where there is scope for any confusion, such as vague statements or overly-assertive statements that are not as sufficiently balanced as they may need to be. Correct these or remove them. Or much like a literature review, make sure you understand all sides of any balanced arguments that you may need to raise.
3. Write down a single sentence that describes the one over-arching aspect, point, or conclusion that you may wish to get across. You may only get the chance to present one aspect, so make sure this simple message is front and foremost in your mind.



6.5 Television and radio interviews

Earlier in this chapter we looked at preparing a narrative for mass media in fairly general terms. Here we will talk about what it is like in practice to give TV and radio interviews. We will approach this from the point of view of someone doing this for the first time and we certainly fall well short of discussing how to present a TV or radio show; something that requires specialist training and experience, and likely a broader career aspiration.

Of all the mass media, exposing oneself to a television camera or a live microphone can be the most unnerving. Even after over 100 such interviews, both live and pre-recorded, it is still natural and perhaps useful to feel a little nervous. But it is equally important to keep calm and not panic. Different people will react differently—some of us are more confident than others—but with preparation, training, practise, and experience (and breathing), it can become easier and more rewarding. In this section, we will attempt to take some of the mystery out of the process of appearing on television and radio by citing personal experiences and offering some tips and advice. It is also worth noting that much of the advice presented in chapter 4 is also extremely useful for these situations.

As already discussed, preparation is the first step for any interview. This involves scoping out what you want, and don't want, to say and discussing the content of any interview or questioning with the journalist, producer, or presenter beforehand. In the case of live TV news or radio interviews, you will usually be contacted by a producer who will discuss and agree any interview with you over the phone well in

advance. This may be several hours prior to, or even the day before any interview, and you will be invited to talk informally about the subject you will discuss on air. You will have a chance at this stage to make sure that both you and the producer know what you will and won't feel comfortable in discussing. This is a two-way preparative exercise—the producer will be looking to gauge how well informed you are, and whether you will be able to articulate your message live on air, while you need to make sure you ask any questions to put your mind at ease. You may then be invited and given a time to arrive at a studio, or told a time that a presenter and camera crew will come to you. This may then give you some additional time to prepare.

Live TV news interviews to camera can take one of three forms: a face-to-face interview with a presenter or anchor in a studio; a remote interview from a regional studio, where you typically will only hear (and not see) the presenter through an earpiece or headset; and face-to-face interviews with a presenter out in the field. The remote studio interview is perhaps the most unnerving to the uninitiated. You will typically meet with a producer or crew member in the Green Room of a studio, where you will have a final opportunity to discuss the interview before being taken to a sound-proofed room with a member of technical crew who will prepare you for camera and sound. You will then briefly talk over the microphone to a member of the Gallery, which consists of a team of directors and technicians, who will check that you can hear the studio and warn you of when you will be live with the presenter. At this stage it is important to take deep, slow breaths and to calm yourself as much as possible. You can typically hear the live sound feed at this stage, and so you should take the luxury of these few moments to listen to the news as if you were at home. If you are well prepared at this stage, thinking further about the interview can be counter-productive and only serve to add nerves. But it is important to find what works best for you.

Remember to breathe deeply during any pauses and try to be conscious of any body language or nervous fidgeting. A good way to mitigate this is to practise in front of a webcam or camera at home, and to watch out for anything that may not look professional on camera (see chapter 4 for further advice regarding managing yourself). Actions such as scratching rarely come across well; but appropriate use of hand movements, head tilt, and good eye contact with the camera can really help to emphasise your message. Body language such as this can be unnatural for some, but with careful thought and avoidance of more negative body language, it is possible to project confidence and clarity. Simple measures such as maintaining an upright and straight stance when sitting or standing can also help in this regard.

You may find your responses to the questions during the actual interview to be quite automatic, especially if you and the producer have scoped it out well in advance. Try to make sure that your key points have been made early. Answer any questions that you feel able to, don't answer those that you may not know the answer to, and make clear where personal opinion may be introduced.

Face-to-face, live studio interviews are perhaps a little more comfortable as you can see the presenter and benefit from being able to interact with their body language in a way that you cannot in remote studios. Field interviews are more

comfortable still, since the field presenter (if not acting as an anchor) typically has some time to talk to you ahead of the live interview and discuss any questions with you further, which you may find naturally helps to put you at ease.

Live radio interviews are not so very different from those for television. The process and setting are broadly the same—you may be face-to-face with a presenter in a remote studio (or speaking on the phone), or out with a roving reporter. We recommend approaching radio interviews in exactly the same way as TV interviews, and when speaking to a presenter to behave exactly as you would on any TV interview, including using gesticulations or body language, which naturally help to project clear oral communication.

Some tried-and-tested tips on handling live interviews are to:

1. **Always be respectful.** Don't continue talking about a drawn out subject when the presenter has asked you to stop.
2. **Don't interrupt.** Or be interrupted.... If you are interrupted, and the interview continues, remember to come back to your key messages if they have not been made already.
3. **Demonstrate passion (pathos).** Speak clearly, loudly, confidently and with intonation.
4. **Be aware of yourself.** Be mindful of nervous body movements and actions like swaying, scratching your head, or playing with your clothes.
5. **Feel free to use gestures.** Use emphatic body language such as a head tilt and hand movements if these come naturally to you. But use these sparingly and with subtlety.
6. **Watch your posture.** Sit or stand as tall and upright as possible.
7. **Avoid filler.** Try to avoid using 'erm' or 'so' at the start of sentences. Instead, take a quiet moment to compose your answer if you need to. These 'filler' words are often used to help us formulate a response in stressful situations, but they do not present well.
8. **Be aware of your limitations.** Don't attempt to answer anything that you do not know about. Instead, answer by politely reminding the interviewer about what you are there to discuss, or better still, explain how such a question could be answered with further science if appropriate.
9. **Behave appropriately.** Remember you may be on the record (and you should ask if unsure), be mindful about not saying anything you wouldn't want to see reported or quoted and attributed to you.
10. **Practise in front of a camera yourself.** You'll be surprised how any recording device can naturally force you to behave as though there was really an audience there.

As well as the interviewer–responder setting of a live interview, recorded interviews can also include features for science documentaries or other media outputs. These settings are broadly similar to live interviews, with the exception that you may have the chance to re-record any sections you are unhappy with. In addition, the production team may have the opportunity to edit any material prior to release. Curiously, we have both found that simply knowing that there is the luxury to

re-record material means that you are more likely to make verbal mistakes in pre-recorded settings, while the pressure of live interviews seems to always ensure that you get it right first time. This has especially been the case when recording one-way monologues for documentaries, and is perhaps due to the fact that the absence of someone asking specific questions means that you are often left to formulate your own thoughts, meaning that what you have to say becomes less of an automatic response and more of a voluntary choice. In such a setting it can help if you ask your presenter or crew to give you prompts. These could be written cues or verbal questions that remind you about what you have prepared in advance, thereby helping to break down any monologue into manageable sections. However, in all cases, it remains important to scope out and list the general content of what you need to say, especially if this concerns any important facts or figures that it may be important not to get wrong.

At this point, it might be useful to explain the difference between offering opinion and providing objective conclusions in any interview setting. An example may be useful here. Let us imagine that you are being interviewed about air quality in a major city and you are highlighting measurements that you have recorded and published. Let us also imagine that those data show that air quality is often quite poor in the area where you recorded your measurements, and exceeds some regulatory threshold that has been defined to constitute a risk to health. Finally, let us imagine that you are nearing the end of an interview and that you have described your measurements and that you have also (rightly) conveyed an objective opinion that there may be an impact for human health. This is a justified and appropriate objective opinion because it is based on your own published research, and in this example it is your own analysis that directly links your measurements to regulatory thresholds that define a risk to public health.

But what if the interviewer asks you 'in the light of your research, would you live in this city?' This is entirely the type of question you might be asked, as it is a question very much related to the public interest that the media serves, and on a topic for which you are perceived to be an expert. Take a moment to think about what you would say? Would you answer the question directly? Would you answer the question honestly? Think carefully, because your answer could be very powerful and influence the lives of many people if they trust you implicitly. If you said 'no', your answer may well be an honest personal opinion, but ask yourself if you would honestly encourage others to move out of the city for their own health; as this is the true basis of the question you have been asked.

A more objective answer to the true basis of the question might be to refer back to the science and suggest that your results relate to, for example, a fixed time period and location, and that someone's choice of where to live may not be based solely on their exposure to air pollution, and that it is a matter of personal choice, made up of many different factors. You may also wish to say that the science on health risks is based on large population studies, that risk at a personal level may well be different, and that further research is required to better understand the impacts on individuals. You could even go a little further and state that it is important that air quality should be improved through better policy. Such an approach steers your answer

back toward the science you are discussing and away from a personal and emotional opinion, despite what the interviewer may want you to say.

These are incredibly difficult types of question to prepare for in advance but thinking about what questions may be asked and role-playing some scenarios with friends and colleagues can help to train you how to deal with them objectively. Very rarely, you may then be challenged on why you have not answered such a question directly. If that happens, you could politely reply by suggesting that it is not a decision you have to make, or refer the interviewer to the reply you have already given. But if you do choose to give an honest (but personal and emotive) answer, always be clear that this is what you have done, and be mindful of the authority and responsibility that your label as a scientist affords you.

Exercise: practise for a live interview

1. Pass your press release prepared in the earlier exercise to a friend or colleague who is willing to help you by acting as a TV news anchor and interviewer. Ask them to prepare a list of questions to ask you based on the press release, but ask them not to share this with you in advance.
2. Set up a webcam or video camera with a microphone in a quiet room where you and your interviewer can attempt to recreate a live interview experience. Focus the camera on you from a frontal aspect but with your interviewer out of view. This is because we want to simulate the pressure and attention on you (and not your interviewer).
3. Ask your friend or colleague to interview you about your chosen topic and record it. You could ask your mock interviewer to think of some particularly difficult questions, especially ones designed to elicit an emotive and/or personal response.
4. Watch the interview back, preferably with your friend or colleague, and reflect on how well your message(s) came across. Focus also on your style of delivery, confidence and clarity, and body language. Is there anything that you are unhappy with or which you could improve?
5. Repeat this as many times as you can until you feel more confident and natural in front of a camera.
6. To take this further, you could consider making this scenario a regular part of your professional life by recording a podcast or video blog about popular science in your field and uploading this to a video hosting site such as YouTube (see chapter 7 for more details).

6.6 Summary

This chapter has explored several methods of engagement with the mass media, and provided tips and advice on preparing for recorded media interviews from the viewpoint of a researcher wishing to convey a scientific message. The key to successful engagement concerns preparation, practice, and confidence. While

engagement with the mass media can be unnerving, it is a powerful way to educate, to inspire others, and to affect meaningful change as a result of scientific progress.

6.7 Further study

The further study in this chapter is related to gaining experience with the mass media, it should make you think further about how best to get their attention and to promote yourself and your research in an effective way when you do:

1. **Pitch an idea.** Go to the website of a popular science magazine or TV show and look for their submissions page. Using the press release that you have developed in this chapter, along with the guidance for submissions, pitch an idea based around your current or future research. One potential source for submission is *The Conversation* [2], a not-for-profit media outlet that uses content sourced from academics and researchers.
2. **Listen to a science radio show.** Find a regular scientific radio show (e.g. 'The Life Scientific' with Professor Jim Al-Khalili on BBC Radio 4). Make a note of what you find interesting about the programme. Is there any aspect that you find unengaging? Could you imagine yourself being a contributor on that programme? If so, then how do you go about becoming one?
3. **Watch other scientists.** Look online for a recent TV interview with a scientific researcher. Do they come across well? Are they able to communicate their research in a succinct and entertaining manner? Do they engage with the other people in the studio? Try and observe if there are any other examples of good practice that you could learn from, or any bad habits that you potentially see in yourself and which should be avoided.
4. **Register your expertise.** An effective way to make yourself known to the mass media is by registering your field of expertise with a national science media organisation, such as the Science Media Centre [3] in the UK. Find out which register is most suitable for you and add yourself to the list.

6.8 Suggested reading

Chapters 1 and 2 of *The Sciences' Media Connection–Public Communication and its Repercussions* [4] are especially relevant to this chapter and discuss the impact of science and science communication in society. *Introducing Science Communication: A Practical Guide* [5] also offers some helpful advice on dealing and engaging with the mass media. For further information into the relationships between scientists and the mass media, the article 'How scientists view the public, the media and the political process' [6] presents a large study of UK and US scientists' perceptions of the media. Similarly, 'Assessing what to address in science communication' [7] examines how groups and individuals process scientific information and how this is used to develop personal and public opinion. To this end, the article also discusses how to present information in suitable ways for a given audience to obtain maximal absorption. Finally, 'The mobilization of scientists for public engagement' [8] presents a scientific study of the effectiveness and motivations of public engagement

by scientists, and is part of an interesting wider special issue in this highly relevant journal that should be consulted for even greater depth on this topic if desired.

References

[1] O'Shea S J, Allen G, Fleming Z L, Bauguitte S J-B, Percival C J, Gallagher M W, Lee J, Helfter C and Nemitz E 2014 Area fluxes of carbon dioxide, methane, and carbon monoxide derived from airborne measurements around Greater London: a case study during summer 2012 *J. Geophys. Res.: Atmos.* **119** 4940–52

[2] The Conversation 2019 https://theconversation.com (Accessed 16 October 2019)

[3] Science Media Centre 2019 https://sciencemediacentre.org/

[4] Rödder S, Franzen M and Weingart P 2011 *The Sciences' Media Connection–Public Communication and its Repercussions* vol 28 (Berlin: Springer)

[5] Brake M L and Weitkamp E 2009 *Introducing Science Communication: A Practical Guide* (London: Macmillan)

[6] Besley J C and Nisbet M 2013 How scientists view the public, the media and the political process *Public Understand. Sci.* **22** 644–59

[7] de Bruin W B and Bostrom A 2013 Assessing what to address in science communication *Proc. Natl Acad. Sci.* **110** 14062–8

[8] Bauer M W and Jensen P 2011 The mobilization of scientists for public engagement *Public Understand. Sci.* **20** 3–11