Journalist Fellowship Paper

How to think about journalism in a world of experts

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July 2025
Trinity Term
Sponsor: Fritt Ord

Contents

Introduction

Key vocabulary introduced in this chapter

- **Epistemic** Relating to knowledge, belief, and justification. In this report, it refers to how knowledge is recognised, validated, and used.
- **Epistemic nihilism** The view that no sources of knowledge can be trusted; that truth is impossible to establish.
- **Meta expertise** Expertise about expertise; the ability to judge who qualifies as an expert, even without being an expert in the same field.

In early 2025, a dispute about the value of expertise exploded out from the gravitational centre of the podcast universe: *The Joe Rogan Experience*.

Scion of the alternative media world, kingmaker Rogan has been credited with paving the way for Donald Trump's election as U.S. president, and propelling a worldwide surge of neo-conservative sentiment among young men.

The podcast has long been a "safe space" for comedians, creators and fringe academics to riff and pontificate – unchallenged – about everything from martial arts to modern warfare, from the Deep State to vaccine science.

On 10 April 2025, a guest pushed back, igniting a chain reaction of controversy throughout the online right.

Clockwise from left: Joe Rogan, Dave Smith and Douglas Murray recording Joe Rogan Experience #2303 on 10 April 2025. Credit: Screengrab/YouTube

Speaking in his trademark aristocratic drawl, England's arch-conservative commentator Douglas Murray questioned Rogan's habit of platforming unqualified

voices: why invite an amateur historian who said Winston Churchill, not Adolf Hitler, was "the chief villain" of World War 2? Why had today's other guest, comedian Dave Smith, been given space to talk for hours about what was wrong with Israel's war on Palestine and U.S. support for Ukraine? And above all: why so often feature "people who have appointed themselves experts who are not experts"?

"I'm just interested in your selection of guests, because you're, like, the world's number one podcast," Murray pressed.

His attempt at epistemic gatekeeping was not without irony; Murray is hardly a technocrat himself. On the contrary, he has made his name partly by attacking elite institutions and mainstream orthodoxy. Critics accuse him of promoting Islamophobic ideas and positions associated with the far right.[1] Like many figures in the new media landscape, he has profited from the very erosion of traditional gatekeeping he now seemed to defend. Have we reached a point where even hardened contrarians are beginning to look with anxiety at where their own successful confrontation of legacy authorities is leading?

As the conversation grew more heated, Smith pushed back, accusing Murray of elitism and being "quite anti-democratic in spirit". Should only the expert class be allowed to have opinions on matters of war and foreign policy? And importantly: hadn't it been outsiders such as Smith – *not* the credentialed experts – who had turned out to be right about school closures and the origin of the pandemic? And what about Murray himself, was *he* an expert on these topics?[2]

For those of us who still have faith in traditional journalistic norms, it's tempting to watch this cage fight over expertise with a sense of smug vindication. Here, surely, alternative media has shown its true face? While this exchange revealed a profound difference between the epistemic nihilism of the "Roganverse" and the ideals of traditional journalism, a sigh of relief may be somewhat premature.

Whether penning a quick quote story about fitness trends or digging deep into the complexities of chemical waste for an investigative report, journalists themselves

[1] While Donald Trump deemed Murray a "highly respected author" and praised his book on Israel's war on Gaza, others argued Murrays expertise on the conflict is a "sham". Current Affairs (2024) '*Douglas Murray's expertise is a sham*'. Available at: https://www.currentaffairs.org/news/douglas-murrays-expertise-is-a-sham

[2] Murray conceded that experts had made serious mistakes, making the public's growing distrust of experts "inevitable" as he later wrote in his *New York Post* column: "Yet that doesn't mean expertise doesn't exist. Journalism has had its own meltdown in recent years. But it doesn't mean we don't have standards."

grapple with the challenge of expertise every day: deciding whose knowledge is trustworthy or relevant, how much weight to give their testimony, and how best to present it to the audience. How intentional are we, really, in the way we handle these choices? How clear are we, really, about the ethical and epistemic standards we apply when selecting expert contributors and framing what they say?

The answers to these questions matter because journalism has a central role in "shaping public understanding of expertise, as a mega-broker, gatekeeper, curator, and legitimiser of expert knowledge", as the media scholar Zvi Reich writes.[3] "In their selection of experts, and by framing their opinions, news organisations shape hierarchies, preferences, and public literacies of expertise, as well as prevalent images of experts and pseudo-experts."

Rogan's messy battles over expertise also effectively dramatize the core tensions that frequently arise when journalism intersects with expert knowledge: the tension between democratic access and epistemic responsibility, between facilitating the open forum and applying the expert filter. Who gets to speak? Who is believed?

Expertise in a crisis

The starting point of this report was my own experience as a science journalist during the COVID-19 pandemic. In a crisis, we turn to people with specialised knowledge – as we should. It was paramount that politicians based their response on evidence as much as possible. It was vital that the public received good information. But it was daunting to navigate the flood of new and often weak or inconclusive research. And it was challenging to navigate scientific uncertainty and scientists who often disagreed.

In this way, the pandemic highlighted a fundamental problem for journalists covering expert sources: we often lack the competence to directly assess the validity of what they tell us. We might adapt Janet Malcolm's canonical quote on the moral nature of journalism's relationship to its sources to make a point about its relationship to knowledge:[4]

[3] Reich, Zvi. (2021). *What on Earth do Journalists Know? A New Model of Knowledge Brokers' Expertise*. Communication Theory

[4] The original quote is from Janet Malcolm's book *The Journalist and the Murderer*: "Every journalist who is not too stupid or too full of himself to notice what is going on knows that what he does is morally indefensible."

> *Every journalist who is not too stupid or too full of himself to notice what is going on knows that he lives at the mercy of people with knowledge he is too ignorant to fully understand.*

What does this imbalance, if true, mean for the practice of journalism? What would it imply for how journalists should think about their own role in society?

At the same time, the pandemic revealed the limits of expertise in several ways. It exposed expert fallibility, and laid bare (for better or worse) how messy, incomplete, and contradictory science can be, especially as it unfolds in real time.

It also became clear that, in order to understand and manage a crisis, a diverse range of expertise is required. We needed to hear not only from doctors and epidemiologists, but from child welfare experts to economists and legal scholars.

Moreover, many of the decisions being made, even when evidence based, involved normative judgements. Medical doctors and epidemiologists know much more about how to slow down a spreading virus than the average citizen, but they have no exclusive knowledge about how we should weigh personal freedom against the risk of illness and death.

In the end, the democratic legitimacy of measures such as prolonged school closures probably depends on some level of public deliberation or at least opportunities for the public to push back.

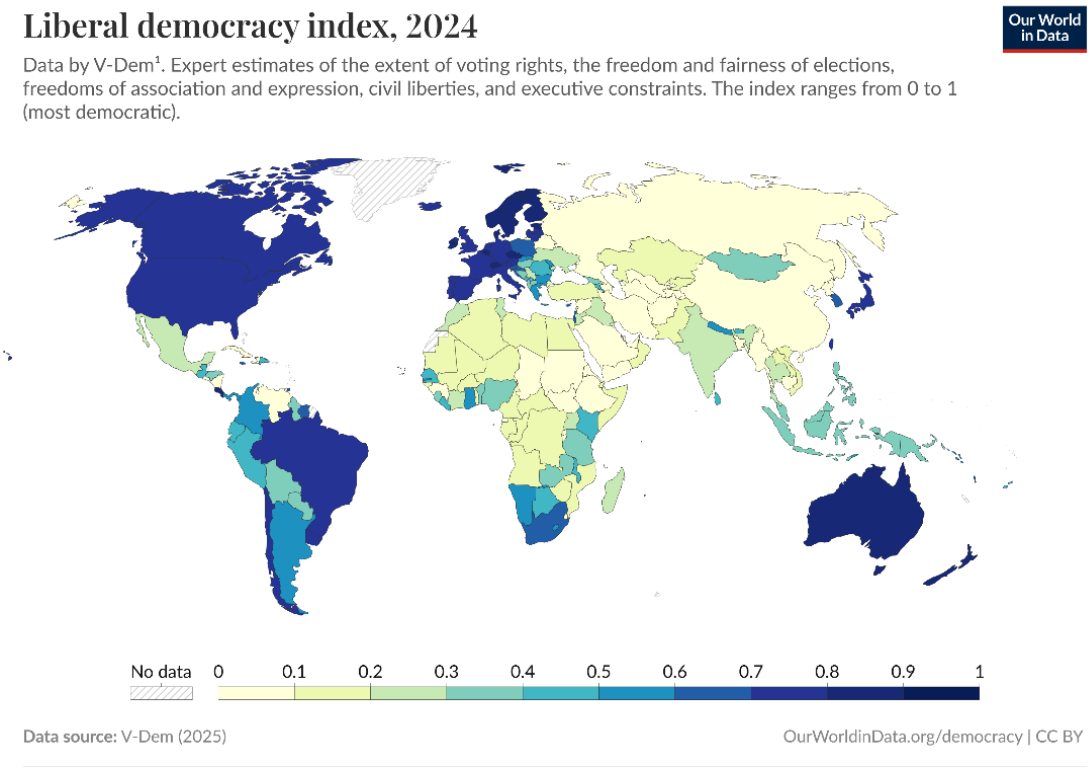
One of journalism's tasks is to help facilitate such societal conversations: by making complex knowledge comprehensible; by ensuring that diverse disciplines, voices, and public concerns are brought into the debate; by scrutinizing expert advice, and by holding power to account.

Expertise in overload

Expertise also poses an acute challenge for journalism in an era marked by information overload. There are widespread worries about disinformation and erosion of the norms of discourse – including political actors actively working to undermine public discourse as a truth-seeking mechanism.

Democracy is backsliding around the world in a process that is arguably deeply intertwined with the rejection of established knowledge and politicisation of science

and expertise. Considering this, it seems vital both to reassert the value of real expertise and to better understand its limits.



As journalists, we must somehow find ways to do our small part in rebuilding a public conversation that is inclusive and curious on the one hand, and epistemically sound on the other – one that empowers people to make informed personal choices and enables political decisions that are both well-founded and democratically legitimate. Could getting a better handle on expert sources in journalism be one of the pieces of this puzzle?

A new vocabulary

During my time at the Reuters Institute, I wanted to look more closely at this challenge, if for no other reason than to understand the problem a little better. The topic of expertise in journalism is rife with interesting and important problems that I'm not discussing directly, such as demographic and gendered bias in source selection, the constant recycling of the same talking heads, journalists themselves playing experts, or that people are starting to ascribe expert authority to language machines.

Instead, I've been searching for fresh ideas and a vocabulary to help me get a grip on the (admittedly elusive) situation outlined above. For this I've been looking both to

journalism studies and dipping into other fields of study where the problem of expertise has been more thoroughly examined.

A comprehensive reading of the vast relevant literature was not possible, so I have focused on a limited sample of books and papers in pre-selected areas, betting on discovering something useful.

And, yes, I've sought out experts to help me – including seasoned science journalists whose long experience in navigating specialised knowledge make them particularly well suited to reflect on these issues.

What to expect from the report

The structure is as follows: after a chapter highlighting some key facets of journalism's struggles with expertise today, we'll zoom out to see how the challenge fits into larger societal developments. [5]

We need to understand both how indispensable experts are in the governance of modern societies, the power they yield, and the democratic tensions this potentially creates.

Then we'll zoom in, finding more practical insights in perhaps unexpected places:

- Social Epistemology helps us articulate the complexities of choosing between competing experts, and offer clues on how to overcome them.
- A journalism scholar recommends strategies to come to terms with our own inferiority.
- A quick detour to research on expert political judgement gives us a reality check on expert performance and highlights the importance of holding them to account.
- A branch of the social studies of science then introduces the idea of meta expertise and helps us in discerning between different kinds of expertise.
- Finally, scholars studying science in democracy and value judgements in science offer new ideas about how to approach the many cases where science is uncertain, experts disagree or scientific advice clashes with public concerns.

[5] A note on AI usage: the author is Norwegian and acknowledges that AI (GPT-4/4o) has been consulted in passages for suggestions on language refinement and clarity, including drafting translations from Norwegian of some paragraphs. Otter AI has supported the process of transcribing interviews from audio recordings.

This report will not offer solutions. If anything, it's only now – as I finish writing – that I feel I'm beginning to grasp the depth of the questions and the breadth of the relevant literature.

The irony isn't lost on me, either. With limited time on my hands, I've ventured into difficult academic terrain, and complex and often contradictory bodies of work that I'm not really qualified to assess.

My hope is modest: to introduce some ideas and frameworks that can potentially be helpful in the continued conversation about how to better navigate the troubled waters of expertise.

As real experts will almost always tell you: "more research is needed".

Experts interviewed for this project

Name	Title/Role	Affiliation	Area of Expertise
Seth Lewis	Professor of Journalism	University of Oregon	Journalism studies; expertise in journalism
Kai Kupferschmidt	Science journalist	Freelance, *Science* magazine	Infectious disease; pandemic reporting
Harry Collins	Professor of Sociology	Cardiff University	Sociology of scientific knowledge; expertise theory
Mike Schäfer	Professor of Science Communication	University of Zurich	Science communication; media and democracy
Angela Saini	Science journalist & author	Freelance, MIT fellowships	Gender, race science, public understanding of science
Vanessa Schipani	Science journalist & fact-checker; PhD in Philosophy	University of Pennsylvania (PhD)	Trust in science; philosophy of science
Alfred Moore	Senior lecturer	University of York	Political theory, deliberative democracy, politics of expertise
Zvi Reich	Professor of Journalism	Ben Gurion Univerity of the Negev	Journalism, news sources

Chapter 1: The role of experts in the news

Key vocabulary introduced in this chapter

- **Mutual legitimation** The reinforcing dynamic in which experts gain authority by being quoted in the media, while news outlets bolster their own authority by quoting those experts.
- **Credible knowers** Individuals recognised as trustworthy sources of knowledge. In journalism, credibility is often conferred by how reporters select, frame, and quote sources.
- **Epistemic justice** Fairness in recognising and crediting people as credible knowers, resisting the tendency to dismiss certain groups' knowledge unfairly.
- **Hierarchy of credibility** The informal ranking journalists carry in their heads about which sources are most trustworthy – with university researchers often assumed to be at the top, and NGOs or think tanks treated as more biased.
- **Politicisation of expertise** The process by which expert voices become entangled with political advocacy, shifting from presenting research findings to promoting specific agendas.
- **Science-related populism** A political stance that pits "ordinary people" against "scientific elites," often questioning the legitimacy of expert knowledge.
- **Knowledge deficiency** A gap in journalists' subject-matter expertise that makes them vulnerable to manipulation by sources.
- **Bullshit** A concept from philosopher Harry Frankfurt – statements that are indifferent to truth; neither lies nor accurate claims, but produced without regard for factual correctness. Reporters become bullshitters when they knowingly give the microphone to people who are mistaken or uninformed.
- **Post-factual society** The idea that in contemporary politics and media, emotions, beliefs, and identities increasingly outweigh facts in shaping public opinion.

It's Sunday. You're working the shift alone and need to quickly assemble an article about the government's new dietary guidelines. What to do? Most likely: you ring up a familiar name – someone publicly known for having opinions on the matter.

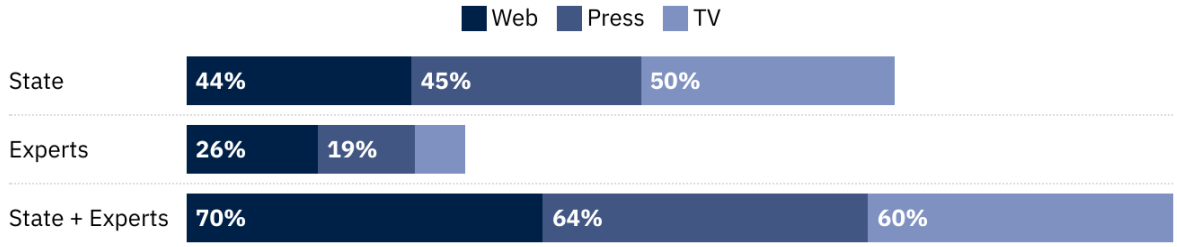
Or perhaps you're instructed to swiftly update readers on the latest developments in the war in Ukraine. In that case, it's handy to have both military academy colonels and political scientists on speed dial.

As a political reporter, you receive a tip that a top politician's stock transactions might be problematic. Worth investigating further? A law professor might help you make sense of it.

Whether you're on the breaking news desk, investigative team, or a science journalist, a surprising amount of our work life involves navigating the world of experts.

The full extent of expert citation in the news is difficult to determine: studies are old, small or operate with different definitions. But the scale is somewhat illustrated by a 2013 study that examined a selection of media coverage across nine countries. It found that government and expert sources together made up between 60 and 70% of all sources, depending on whether the media outlet was online, television, or print.[6] Expert sources alone accounted for 26% in online media, 19% in print, and 10% on television.

Sources of hard news across media (%)



Source: Source: Curran et al. (2013), Internet Revolution Revisited: A Comparative Study of Online News, Media, Culture & Society 35(7): 880–897, Table 3

This makes sense: journalism isn't just about reporting events, but about "designating what they mean" – and, for this, we rely on experts.[7]

In daily journalism, experts serve as our sparring partners, interpreters, and validators. They help us understand complex topics, and influence what we consider newsworthy. We interview them – sometimes very frequently – for context, analysis, opinions and predictions about current events. They are asked for advice and political solutions. Their words can justify angles, bolster perceived objectivity, or give legitimacy to controversial claims.[8]

[6] Curran, James. (2013) *Internet revolution revisited*. Media, Culture & Society
[7] Carlson, Matt. (2009). *Dueling, Dancing, or Dominating?* Sociology Compass
[8] See the following about these functions: Boyce, T. (2006). *Journalism and Expertise*. Journalism studies; Albæk, Erik. (2011) *The interaction between experts and journalists in news journalism*. Journalism. Johansen, K and Johansen J. (2022). *Ekspertkilder i landsdækkende danske dagblade: Hvem er de, og hvilke roller og funktioner optræder de i?* Journalistica ; Johansen, K and Jørgensen, S: *Til kilderne – igen!* Magtutredningen 2025.

The experts we give voice to – and help establish as trusted public figures – will potentially take up important roles in framing societal debates, influencing what counts as knowledge, shaping public opinion and, in the end, potentially impacting policy. Who we select, how we frame their input, and how we contextualise their claims matters, because it plays a big part in guiding democratic sensemaking.[9]

This isn't new: "The history of journalism is intertwined with the history of expert opinion and the expression of expertise," said American journalism scholar Seth Lewis in an interview for this project. Lewis, who is a professor at the University of Oregon, observed that the invention of the interview as a genre (and thus the birth of what we today recognise as professional journalism itself) is connected to the idea of the expert source. Before this development in the 19th century, journalism was typically a partisan endeavour where individual journalists themselves would often pontificate on different issues in first person.

Expert quotes as evidence

According to some journalism scholars, modern journalists tend to rely on sources "by default" these days – frequently "without any verification whatsoever", as long as no counterevidence or counter beliefs present themselves.[10]

Media scholar Matt Carlson has written about one reason this may be the case: journalists very often construct their stories through attribution, using quotations in a way that, in effect, serves as an essential form of evidence.[11] This is convenient because sources can make "direct assertions in ways denied to journalists" while at the same time absorbing the burden of proof. "In place of verification, the transparency of a claim's origin allows journalists the opportunity to deflect criticism away from their practices," Carlson writes. In effect, this liberates the journalist from the "extra labour of adjudicating".

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[9] Dunwoody and Kohl argue that the scientific and expert views that the media report on – and thereby legitimise – shape our understanding of reality in ways that strongly influence policymakers' agendas. But not only that: they even feed back into science itself. Dunwoody points to research showing that studies covered in the *New York Times* are cited more frequently in the scientific literature than other research judged to be of equal quality. See Dunwoody, S and Kohl, P. (2017) *Using Weight-of-Experts Messaging to Communicate Accurately About Contested Science*. Science Communication.

[10] Barnoy, Aviv and Zvi Reich. (2009). *The When, Why, How and So-What of Verifications*. Journalism Studies.

[11] Carlson, Matt. (2009). *Dueling, Dancing, or Dominating?*. Sociology Compass.

This practice raises a host of crucial questions. Among them are these: shouldn't we expect journalists to do more to verify claims for themselves? And how do journalists then decide *who* to use as authoritative sources? Or as Carlson puts it:

> *"Out of the universe of potential witnesses, who is called upon – or is granted access – to supply their accounts through news discourse?"*

Discussions about this last question tend to focus on the important problem of journalists being overdependent on elite and official sources, including experts – a pattern that is one of the most reproduced findings in journalism studies, according to Carlson.

He discussed a circle of mutual legitimation: the source gains authority by being used by the media, while the news outlet bolsters its own authority through using this authoritative source. This invites reflection on how the use of sources in news upholds and reinforces existing power structures by supporting, as Carlson put it, "a normative order of authorised knowers in the society".

But the journalistic practice Carlson described should also compel us to discuss the importance of our *epistemic reasons* for source selection.

Surely, journalists should be interested in making sure their sources actually know what they are talking about? In this respect, there is much to suggest (as we'll soon see) that journalists aren't always particularly intentional about how – and why – they select their experts.

In recent years we've seen the emergence of a PR industry that connects time-pressed journalists with experts eager to comment on everything from sex toys to health conditions. Recent revelations in the UK showed that some of these "experts", prominently featured even in national newspapers, have falsified credentials, provided AI-generated quotes, or don't even exist.

This perfectly illustrates the media's insatiable hunger for expert soundbites. That these "experts" slipped through editorial filters indicates some room for improvement in source verification, but just as concerning is the cynical – even cavalier – attitude towards the substance of what these "experts" say.

Erik Albæk, political scientist and research director at the University of Southern Denmark's Centre for Journalism, has shown that one big factor when selecting

expert sources can be that the journalist – to avoid breaking traditional norms about objectivity – needs to legitimise angles and conclusions they have thought out beforehand.[12] If they don't get what they need, they can always try another expert.

In other cases, experts do act as sparring partners that help shape the news frame.

To what extent then are media experts actual experts? This, too, is difficult to gauge. When Leidecker-Sandmann analysed German COVID-19 coverage, they found journalists tended to select scientific experts with high expertise in the crisis.[13] But this might not be the norm. The authors write that previous research suggests that there often is a rather poor correlation between scientific expertise and media appearances. When choosing their experts, journalists also look for other things, such as proximity, availability on short notice, communications abilities and the willingness to state clear opinions. One of the most important factors is whether other journalists have selected the same expert earlier.

The problem with this, Leidecker-Sandmann contends, is that if journalists fail to choose scientific sources who are truly competent by scientific standards, journalism quickly runs into trouble. It becomes difficult to legitimately claim journalists' role as conveyors of "superior knowledge". And this opens the door for politicians to pursue solutions that lack scientific support.

Experts as advocates: lessons from Denmark

Who journalists cast in the role of expert will be dependent on the different functions they serve in stories. Danish research highlights several important points in this respect. In a seminal study looking at the use of expert sources between 1961 and 2001, Albæk et al. not only found a dramatic, seven-fold increase in the use of researchers in the news; they also identified a dramatic shift in *how* experts were used: from talking about their own research results to mainly just commenting on politics and current events – a finding confirmed by later studies.[14]

Albæk also observed a shift from platforming natural scientists to social scientists in his longitudinal study – especially towards economists and political scientists.

[12] Albæk, Erik. (2011). *The interaction between experts and journalists in news journalism*. Journalism.
[13] Leidecker-Sandmann. (2022). *Selected by expertise? Scientific experts in German news coverage of COVID-19 compared to other pandemics*. Public Understanding of Science.
[14] Albæk, E. (2003) *Experts in the Mass Media: Researchers as Sources in Danish Daily Newspapers*, 1961–2001. Journalism & Mass Communication Quarterly.

The idea of a prototypical expert as the "independent university researcher" has also shifted, according to Danish researchers Johansen and Jørgensen.[15] More and more experts are sourced from consultancy firms or from NGOs or think tanks that represent political interests just by virtue of their employment.

In a study that looked at the changing "market for expertise" in Danish news stories, Laursen and Trapp also observed a vanishing line between expert and advocate.[16] The starting point for their study was telephone calls to the press officers of 55 interest groups in Denmark. These interest groups, they were told, had discovered that by positioning themselves as a useful source of expertise – for example, by conducting surveys and publishing reports – they could gain media attention and political influence.

At first, the researchers thought it would be unlikely that this strategy would be successful. After all, isn't it well established that journalists prioritise expert voices with authority over sources with clear vested interests?[17] Journalists are thought to have a "hierarchy of credibility" in mind when selecting sources, possibly tied to the assumption that the authority of our sources influences the perceived reliability of our journalistic product.

Scientific and evidence-based expertise from universities has traditionally been at the top of this hierarchy, because it's understood as "value-free", "fact-based" and under less political pressure. NGOs and think tanks, by contrast, are politically biased, the authors noted. Journalists are then expected to be more sceptical towards them.

But their research suggested the intellectual landscape has changed, with more knowledge being produced outside of the academy. In a study of three newspapers, think tanks and NGOs together accounted for more than half of the appearances. Independent researchers were still the more popular choice as expert sources, but they almost never referred to their own research – and in over half the cases, they

[15] Johansen, K and Jørgensen, S. (2025) *Til kilderne – igen!.* Magtutredningen. See also Laursen, B and Trapp, N. (2021). *Experts or Advocates: Shifting Roles of Central Sources Used by Journalists in News Stories?* Journalism Practice.
[16] Laursen, B and Trapp, N. (2021). *Experts or Advocates: Shifting Roles of Central Sources Used by Journalists in News Stories?* Journalism Practice.
[17] See the literature review in Laursen, B and Trapp, N. (2021). *Experts or Advocates: Shifting Roles of Central Sources Used by Journalists in News Stories?* Journalism Practice.

too acted as advocates for some societal issue.[18] In short, even independent researchers are becoming politicised.

What are the implications of all this? According to Laursen, the key takeaway is that journalists need to sharpen their critical skills "more than ever", and learn how to separate advocates from experts. Journalists may be tempted, they warn, to cherry-pick advocacy–expert sources who fit the framing we have in mind for our stories.

Johansen and Jørgensen made the point that when journalists use experts to provide political evaluations and proposals, they are engaged in something that "closely resembles normative interpretations or even outright activism".[19] The authors connect this to the increasing politicisation of experts in the news.

This practice may make journalism more vulnerable to attack. As Johansen and Jørgensen point out, it is striking how much of the criticism directed at journalism involves source selection and the perception of media experts as biased or activist.

Some notes on distrust

Journalism's trouble with experts connects with widespread worries about declining trust in science. Influential academics talk about the demise of expertise, and it appears as if more and more people are simply not accepting that some people know more than others. According to Tom Nichols, a former professor and political analyst who is now a staff writer at *The Atlantic*, democracy itself can "enter a death spiral" when public trust in experts collapses.

It's a compelling narrative, but does it match reality? The answer depends heavily on the political situation in different countries: attacks on expertise are a far more serious problem when they are coming from powerful political actors.[20] In the U.S., for example, J.D. Vance approvingly quoted Richard Nixon in a 2021 speech: "the professors are the enemy". The actions of the second Trump administration suggest it was more than rhetoric: cuts to federal research budgets, pressure on science-based bureaucracies such as the CDC and FDA, and appointments to vaccine advisory panels that included individuals with records of vaccine scepticism. Of all our problems with expertise, politicisation may be the thorniest. (For more on this, see Chapter 6.)

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[18] Interestingly, by contrast, sources from think tanks in most instances did cite their own evidence.
[19] Johansen, K and Jørgensen, S. (2025) *Til kilderne – igen!*. Magtutredningen.
[20] See Chambers, Simone and Kopstein, Jefferey. (2023). *Wrecking the public sphere: The new authoritarians' digital attack on pluralism and truth*. Constellations.

Discussions about this topic often assume that trust in science is seriously weakened, but it should be noted that surveys add essential nuance. "In most countries, most people trust scientists," concluded a large global survey published in 2025.[21] In this context, the discourse about trust can – at times – seem alarmist and riddled with hyperbole.

On the other hand, anti-science attitudes don't need majority support to have real impact on people's lives (as evidenced by reports of measles outbreaks due to vaccine resistance).

Secondly, in many countries, researchers have identified a political phenomenon they call "science-related populism". It frames hard-working "ordinary people" against allegedly self-interested academic elites, and it has found executive power.[22] The press plays a role in how this story develops in different countries.[23]

Finally, it's tempting to assume that distrust in expertise or science explains everything from vaccine hesitancy and misconceptions about GMOs to how people understand wars and politics. Yet the prevalence and persistence of false beliefs may owe just as much to trust itself – when it is misplaced in overextended or false expertise.[24] As one philosopher put it: "The world is full of error, evil, and confusion. Much of it originates with false epistemic authorities, i.e., agents who fail to be competent or trustworthy."[25]

This points directly to the danger of journalists presenting individuals as authoritative experts when they are fake, predatory, disguised political advocates, speaking outside of their area of expertise, or simply don't know their stuff. The risk of this happening rises when journalists themselves lack subject matter knowledge. As Thomas E. Patterson pointed out: journalists' "knowledge deficiency" makes them vulnerable to being manipulated by their sources.

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[21] Cologna et al. (2025). *Trust in Scientists and Their Role in Society across 68 Countries.* Nature Human Behavior.
[22] Mede, N and Schäfer, M. (2020) *Science-Related Populism*. Public Understanding of Science.
[23] One study found that frequent use of established media alleviates science-related populism in some countries, but increases it in others, particularly in countries where populist rhetoric dominates public debate. See Mede, N. (2022). *Legacy media as inhibitors and drivers of public reservations against science: global survey evidence on the link between media use and anti-science attitudes*. Humanities and Social Sciences Communications.
[24] Croce, Michel (2025). *Misplaced Trust in Expertise: Pseudo-Experts and Unreliable Experts*. Social Epistemology.
[25] Jäger, Christoph. (2024). *False Authorities*. Acta Analytica.

How fairness produces "bullshit"

A paradigmatic example of this is the tobacco industry's long-running success at nurturing doubt about the dangers of cigarettes, despite overwhelming evidence. Their tactic was to exploit journalism's norms of balance and impartiality: if there were experts who claimed the dangers of smoking were unproven, reporters felt compelled to give that voice equal space alongside scientists raising the alarm.

The same dynamic repeated itself with climate change.

Today, false balance is a well-recognised problem. It arises when journalists give equal weight to opposing claims even when one is far better supported by evidence or expert consensus. The result can be public confusion or a distorted sense of the legitimacy of competing views. This may stem from a sincere commitment to fairness, or from a reporter's inability to assess the evidence. Some critics go further, calling it an act of cowardice, "resulting from the fear to be seen as biased rather than the fear of actually being biased".[26]

There are two main variants of false balance:

- balancing real expert assessments with opinions from non-experts (for example, lay people, celebrities, or experts who speak outside their area of expertise),
- presenting two expert sources as more equal than is justified by the evidence.

Much research has gone into understanding the mechanics and effects of this balance bias. More recently, it has also been discussed how it may help create the so-called "post-truth environment".

Stories containing false balance are not fake news, but they can be just as dangerous, Natascha Rietdijk and Alfred Archer contend. By confusing audiences and "muddying the epistemic waters", false balance obscures both what counts as evidence and who qualifies as an authority. The very notion of expertise suffers, and – taken together – the practice devalues facts and expertise in a way that ultimately "legitimises post-truth attitudes".

Rietdijk and Archer also note that inviting non-experts to discuss matters they barely understand fuels the production of what philosopher Harry Frankfurt calls "bullshit." For Frankfurt, bullshit comprises statements that aren't true yet aren't

[26] Rietdijk, Natascha and Archer, Alfred. (2021). *Post-Truth, False Balance, and Virtuous Gatekeeping* in Virtues, Democracy, and Online Media. Routledge.

lies either, because the speaker simply doesn't care about the facts. Even when interviewees themselves aren't technically talking bullshit – because they do care about truth – reporters become bullshitters when they knowingly give the microphone to people who are mistaken or uninformed.

They conclude that journalists should cultivate a new virtue: epistemic justice. They should give credit where it's due and resist the impulse to pit years of rigorous study and scientific method against irrelevant counterpoints.

Digital dilution of expertise

That's a noble thought, but journalists are not immune to the impact of a digital era that makes it more difficult to distinguish between experts and amateurs, and to recognise and determine what constitutes relevant or valid expertise.[27] Jacob Arnoldi warns that "the public recognition of expertise" has become "socially distributed".[28]

Nichols, for his part, thinks journalists should be "referees in the great scrum between ignorance and learning" but worries that the press isn't capable of performing this role in an age when there is simply too much information, where news is increasingly fused with entertainment, and where the journalists themselves have shallow knowledge.[29]

As Townsley points out, anyone can now access information and technology that was once the privileged domain of experts.[30] On the one hand, this makes it easier to offer one's own critical perspectives. People from marginalised groups are more likely to find one another, and can establish their own "communities of knowledge" which at best can function as an important corrective in public debates. But in the same process, the authority of institutional expertise is being undermined.

Townsley adds that recognising who is qualified and not can be especially tricky when voices in the new media imitate the style of traditional expert performances – a phenomenon we may see at play when health influencers use biochemical

[27] Research backs up the notion that the line between scientists, experts and citizens are increasingly blurring according to a review for the European Commission: Joint Research Centre. (2025). *Trust in science for policy Nexus*. Publications Office of the European Union.
[28] Arnoldi, *The Social Distribution of the Public Recognition of Expertise*.
[29] Nichols, T. (2017) *The Death of Expertise*, chapters 1 and 5.
[30] Townsley, *Media Metacommentary, Mediatization, and the Instability of Expertise*. Oxford University Press.

terminology, or when American comedians speak with apparent fluency about vaccine studies in their podcasts.

Theorists like Arnoldi relate these trends to the contested idea that we live in a *post-factual society*. When Trump dismisses climate science because he "doesn't believe" in it, when Michael Gove during the Brexit debate can declare that people in Britain have "had enough of experts", it reflects a changing view of expertise and a shift in the social role of experts, who are more vulnerable than before to accusations of being in the pocket of "the elite".

We then get more "conflicting claims of expertise and more conflicting expert accounts" – including new alternative voices challenging and sometimes ridiculing mainstream journalists. This makes it even harder to find stories that generate enough shared meaning to connect the many digital micro-publics into a broader audience.

In sum, Arnoldi wrote, we're caught in a self-reinforcing dynamic.

The rise of digital access enables anyone to perform as an "expert," creating new knowledge communities, imitation of expertise, journalistic confusion, conflicting claims, and ultimately the erosion of traditional authority

Disagreement and distrust as democratic levers

The remedy isn't simply for journalists to recognise fraudsters, pseudo-experts, charlatans, quacks and rogue scientists. (Although, as we'll see, this can be hard enough.) Often our coverage deals with complex societal issues that are not easily fact checked. The challenge becomes acute when uncertainty is high, when values are in dispute, and when experts themselves disagree.[31]

Think of covering war, a pandemic, or climate change. Consider stories about emerging technologies, such as regulation of gene editing and artificial intelligence. But even the normal application of science or expert knowledge to societal problems like drug use or electricity prices poses a challenge in this respect.

As we'll discuss in depth in Chapter 8, science that is used to inform policy is usually uncertain which means there will often also be legitimate expert disagreement.

Furthermore, these differences may have to do with varying normative judgements and not just with strict scientific interpretation of the data. And it is seemingly often in exactly these situations that resistance and distrust kick in.

If people have "had enough of experts", it's not primarily with physicists and other basic sciences but with experts that sit at the intersection of science and governance.

How journalists handle these situations has, in the past five years, surfaced as a critical issue.[32] Could the pandemic's many restrictions on personal freedom have turned people against the experts who recommended them? Did journalists bring a broad enough range of public concerns to these experts? Did they ask the right questions?

It is possible that some of the "follow the science" rhetoric may have limited the space for discussing different interpretations of science without falling into polarizing conflicts, as an article in *Science* warned in 2021.[33] "It corrodes democracy and risks producing dissidents with contempt for experts."

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[31] This alludes to a definition of so-called "post normal science", a framework for Science Advice in situations characterised by uncertainty, dispute and a need to make decisions quickly. For a presentation see Ravetz (1993), *Science for the post-normal*. Futures.
[32] See for example Fogatt, Tyler. (2025) *How Experts Became the Enemy* in The New Yorker and Macedo, Stephen; Lee, Frances. (2024). *In Covid's Wake: How Our Politics Failed Us*. Princeton University Press.
[33] Hilgartner, S; Hurlbut, B; Jasanoff, S (2021): *Was "science" on the ballot?*. *Science*.

Journalists failed terribly in understanding this, according to American political scientists Stephen Macedo and Frances Lee, who penned a controversial indictment of pandemic policy, *In Covid's Wake.*[34] "What we need," they wrote, "is somebody to question the specialists, to harass them into thinking through and stating their fundamental assumptions, to request that they relate their doctrines to the actual problems of ordinary people and to keep on pushing until they do, and above all to pay attention to the few specialists who question the prevailing point of view."[35]

Even if one disagrees with Macedo and Lee on the pandemic, their criticisms of journalism point to a deeper tension in democratic societies: how can we reconcile the authority of experts and science with this need for public scrutiny and democratic legitimacy?

[34] Macedo, Stephen; Lee, Frances. (2024). *In Covid's Wake: How Our Politics Failed Us.* Princeton University Press.
[35] Macedo, Stephen; Lee, Frances. (2024). *In Covid's Wake: How Our Politics Failed Us.* Princeton University Press. (pp. 264-265 Kindle edition).

Chapter 2: Expertise, democracy and journalism

Key vocabulary introduced in this chapter

- **The fact of expertise** Holst, Molander, and Christensen's phrase for the reality that modern governance is saturated with expert input – experts are now an inescapable feature of political life.
- **Knowledge society** A term from sociologist Anthony Giddens describing a society where specialised expert systems are central to how we understand and manage social complexity.
- **Contextual reporting** A shift in American journalism (1960s–70s onwards) towards analysis and interpretation, moving beyond the basic "who, what, when, where" model to include explanation, evidence, and critique.
- **Fifth branch of government** Sheila Jasanoff's description of science advisers and experts whose influence in policymaking is so significant that they operate like an unofficial extra branch of government.
- **Esoteric knowledge** Knowledge that is specialised, technical, or accessible only to those within a particular field or community; often contrasted with common or everyday knowledge.
- **Mini-publics** Small, representative groups of citizens convened to deliberate on policy issues after receiving balanced expert input; proposed as one way to counteract technocratic tendencies.
- **Normative core of journalism** The foundational democratic role of journalism: holding power to account and giving the public a voice.
- **Overlapping understanding** Thomas Christiano's concept describing how people with less specialised knowledge (including journalists) can still grasp and translate parts of expert reasoning into accessible language for wider publics.

In their book *Expertise, Policy-Making and Democracy,* Holst, Molander, and Christensen point out that the COVID-19 pandemic, in many respects, served to highlight what was already true: modern governance is saturated with expertise.[36]

The crisis made this impossible to ignore. Think back to the spring of 2020: experts seemed to be multiplying and mutating faster than the novel coronavirus itself. Virologists, epidemiologists and economists served up cold statistics on the number

[36] Holst, Molander, and Christensen (2023). "Introduction" in *Expertise, Policy-Making and Democracy.* Cambridge University Press

of patients on ventilators, projected viral spread through impenetrable models, and made us intimately familiar with the spike protein, T-cells and the "R-number". Researchers of all stripes scrambled to produce knowledge at a pace we'd never seen before. By the time the pandemic was finally declared over, they had published hundreds of thousands of scientific articles.[37]

And they didn't just describe the pandemic, they also advised us how to live: "Work from home if you can!", "Don't visit grandma!".[38]

Politicians in many countries acted accordingly – fortunately, one might say. But it was probably also convenient to "outsource" difficult or unpopular decisions. Other leaders refused to defer to the specialists, sometimes engaging in open polemics against their own scientific advisers.[39]

Expert disagreement played out in full public view, often in fierce exchanges on social media.[40] That top-tier researchers frequently assessed matters differently was underscored by the fact that different countries – each with their own experts – responded to the virus in wildly different ways.[41]

But again, the pandemic wasn't entirely unique. Whether it's tax policy, urban development, or educational reform, we find experts and researchers at the heart of policymaking, defining what the problems are, and what options we have for tackling them. Science advisers play such an important role that they have famously been described by Sheila Jasanoff, a pioneer of science studies, as "the fifth branch" of government.

As Holst et al. emphasised, in modern societies it's practically impossible for politicians to make sound decisions without expert input. Without them, government won't function. Increasingly, it seems, experts are also deemed necessary to legitimise democratic decisions: every policy proposal, good or bad, is legitimised by some form of expert-produced evidence base.

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[37] Ioannidis, J.P. (2025). *Massive covidization and subsequent decovidization of the scientific literature involved 2 million authors*. Journal of Clinical Epidemiology.
[38] Holst, Molander, and Christensen. (2023). "Introduction" in *Expertise, Policy-Making and Democracy*. Cambridge University Press
[39] Phillips, T. & Barretto Briso, C. (2020). *Bolsonaro's anti-science response to coronavirus appals Brazil's governors*. The Guardian, 27 March. Available at: https://www.theguardian.com/world/2020/mar/27/jair-bolsonaro-coronavirus-brazil-governors-appalled
[40] Time, JK. (2021). *Koronaforskere i skyttergravskrig*. Morgenbladet
[41] Sweden and China are the obvious examples. See also Jasanoff, S. et al. (2021). *Comparative Covid Response: Crisis, Knowledge, Politics*. Harvard-Cornell.

Experts are even delegated authority to make decisions on behalf of elected politicians. The economists at central banks who independently set the interest rates on our mortgages are a prime example, but a similar dynamic applies in other areas. Who should get the latest cancer treatment? Chances are it's been decided by an expert committee. Moreover, it is also the experts who evaluate policy outcomes – they are the ones tasked with telling us whether government measures have been successful. Taken together, this is what Holst et al. call "the fact of expertise": experts are now an inescapable feature of political life.[42]

This is largely a product of modernity and the ever-growing complexity of how society functions. The sociologist Anthony Giddens notably described how dependent we are on specialised expert systems, not only to solve problems but to help us understand knowledge society itself.[43] He argued that society has become so complex that we have little choice but to trust expert systems. We are, in short, "doomed" to place our "faith" in experts.[44]

This seems to be reflected in the press, as seen in our own dramatically accelerating use of researchers as sources from the 1960s onwards, with the trend that they are now mainly commenting on social and political problems. (See *Expert quotes as evidence*.)

In the U.S., Michael Schudson and Katherine Fink have described how, beginning in the 1960s and 70s, American journalism gradually moved away from simply reporting events – the classic who-what-when-where model – and instead began producing work that was not only more independent, critical of power, and evidence-based, but also more interpretive.[45] They call this development "contextual reporting": a shift where analysing and explaining the news became part of journalism's mission.

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[42] Holst, Molander, and Christensen (2023). "Introduction" in *Expertise, Policy-Making and Democracy* Cambridge University Press. The phrase is a nod to the philosopher John Rawls discussion of how democracies can contend with the fact of "reasonable pluralism" – the lasting diversity in moral and philosophical worldviews. See "John Rawls" in Stanford Encyclopaedia of Philosophy for an introduction to this concept.

[43] Albæk, E. (2003) *Experts in the Mass Media: Researchers as Sources in Danish Daily Newspapers, 1961–2001*. Journalism & Mass Communication Quarterly

[44] Christensen, Johan and Holst, Cathrine. (2021). *Ekspertenes inntog*, p. 29. Universitetsforlaget.

[45] Fink, K and Schudson, M. (2014). *The rise of contextual journalism, 1950s–2000s*. Journalism.

Political thinkers have long been discussing what the proper role of experts should be within democracy.[46] Democratic theory and political philosophy are rich, diverse, difficult, and often contradictory. What follows in this chapter are observations from a small part of this literature. The aim here is not to provide a comprehensive account, but to highlight a few different perspectives I suspect could be resources in thinking about the role of journalism in a world of experts.

Observation 1: The democratic role of expertise is inherently ambivalent – it enables and undermines it at the same time.

Seen from one angle, expert power raises questions of democratic legitimacy: there are limits to how much authority we can delegate to knowledge elites without losing something essential in our system of government – namely, that collective decisions must be authorised by equal citizens.[47]

The philosopher Alfred Moore put the problem in starker terms when paraphrasing the influential political scientist Robert Dahl's claim that delegation to experts can lead to alienation of final decision power: "Delegating power to experts," he wrote, "is like signing yourself into an asylum and thereby losing the capacity to sign yourself out again."[48]

This is because the challenge of expertise to democracy rests on a fundamental imbalance: expert knowledge is, by definition, not common knowledge. Ordinary citizens are often unable to rationally evaluate the validity of claims that rest on technical reasoning or esoteric knowledge.

Holst et al. describe this "epistemic asymmetry" as counter to what we are taught is the ideal in *deliberative democracy*: that citizens should be able to independently scrutinise policy proposals before casting their votes. They write: "When collectively binding decisions are based on knowledge and reasoning that are difficult to assess for non-experts, how then can they satisfy the legitimacy requirement of being

[46] The question of what the existence of a knowledge elite might mean for which system of governance is the best, is a related but somewhat different problem. Plato famously favoured that "philosopher kings" should guide society toward the good. Today, some political philosophers still argue that policy outcomes would be better if people with superior knowledge ran the show instead of ignorant citizens. Others, notably scholars within so-called epistemic democracy, are aiming to show that democracy is the best system, not just for moral reasons but because the wisdom of the crowds or collective intelligence is epistemically superior to small expert bodies.

[47] Holst, Molander, and Christensen (2023). "Introduction" in *Expertise, Policy-Making and Democracy* Cambridge University Press.

[48] Moore, Alfred. (2017). *Democracy and the problem of expertise* in Critical Elitism. Cambridge University Press.

reasonably endorsed by the citizens having to abide by them? How to judge the trustworthiness of expert judgements when you are not an expert yourself?"

This very practical problem gets even more thorny when considering how tricky it can be to even know for sure whether someone is an expert or not – and harder still when we are forced to choose between the testimonies of competing experts (a topic we'll explore in the next chapter).

An extra layer of difficulty is added if you take into account what Holst et al. label "epistemic challenges to expertise": experts quite often turn out to be wrong, they are prone to bias and group-think, they may act in self-interest, they often do not understand the limits of their expertise, and research suggests that they are – on average – not even that good at making predictions.

Viewed from the other side, the problem is that there undoubtably do often exist people with superior knowledge who are better placed to arrive at the best solutions. We need expert authority to carry weight – to inform governance and protect us from error.

Experts deliver several crucial democratic services: giving a factual foundation to public deliberations, empowering collective decision-making, and speaking truth to power from an independent position.[49] This underscores how both public distrust of experts and political attacks on – or capture of – their institutions can become a serious threat to a functional democracy.

In sum, as Moore argued: it's not just that expert authority poses a challenge to democratic ideals, but also that democracy poses a problem for how we would most like expertise to work in government.[50]

The central question, as Holst et al. frame it, is then this: "How can we take advantage of expertise while at the same time respecting citizens as free and equal persons, possessing a sense of justice, and the power of reason?"

Observation 2: Has journalism been taken out of the equation?

To mitigate the problems described above, political thinkers have come up with different institutional arrangements they hope might ease democratic tensions and foster better decisions.

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[49] *Ibid.*

[50] Moore, Alfred. (2017). "Introduction" in *Critical Elitism*. Cambridge University Press.

For example, expert recommendations can be made available for public consultation and review. Input from civil society can be channelled to expert committees, and those committees can be assembled in ways that incorporate a wide range of perspectives. In recent years it's become popular among democracy researchers to experiment with using so-called "mini-publics" as a counterweight to technocratic tendencies: representative groups of citizens convened to deliberate an issue in a structured way after receiving balanced information from experts.[51]

The philosopher and science journalist Vanessa Schipani pointed out that journalism is strikingly absent from many of the contemporary discussions of scientific expertise in democracy. This omission just doesn't make sense, she argued in an interview: for most people, news is the primary source of information about scientific knowledge – and it is what shapes their understanding of what science is.

Small-scale deliberative groups can be "part of the puzzle", she said, but they will never solve the problem of legitimacy. Such arrangements might be sufficient for local issues where all affected can participate. But to legitimise decisions based on science in situations where it's not possible for everyone to participate, you need someone to critically mediate between the public at large and the influential experts. In other words: you need journalists. (Schipani will return in Chapter 8.)

Observation 3: Journalists rely on unbiased experts to inform citizens

American journalist Walter Lippmann – at times dubbed "the father of modern journalism" – was one of the first to draw attention to the role of expertise in modern democracies. And he did it in a way that is still discussed in both political theory and media studies.

In his foundational 1922 book *Public Opinion,* and later in *The Phantom Public*, he famously argued that ordinary people lacked the time and accurate knowledge about the world to form rational opinions on complex societal issues. Ordinary men and women relied on stereotypes – a term he popularised – and the "pictures in their heads" often failed to match complex realities. Instead of public opinion, politicians should look to experts in order to make informed decisions.

Hence, Lippmann is typically presented as a technocrat who saw the public as incapable of meaningful democratic participation.

[51] Leino, Mikko. (2022). *Expert hearings in mini-publics: How does the field of expertise influence deliberation and its outcomes?* Policy Sciences.

For Lippmann, good reporting "requires the exercise of the highest scientific virtues".[52] But according to Michael Schudson, a sociologist, journalism scholar, and expert on Lippmann, he wasn't very optimistic about journalism's prospects for achieving this. "Journalism could improve and bring its picture of the outside world closer to reality – but it could not, in Lippmann's view, improve very much".[53] Journalists could only inform citizens responsively if they had unbiased experts to rely on.

Schudson has, however, protested fiercely against the widespread portrayal of Lippmann as anti-democratic.[54] "Lippmann did not propose that experts run the government but that the elected officials who run the government call on experts," Schudson wrote.[55]

According to Schudson, Lippmann saw unbiased experts as the best hope "to save democracy from itself" and that too much power in the hands of experts should hardly be a problem in a representative democracy. After all, governmental use of expertise is still "ultimately under the control of democratic authorities". The more serious challenge, as he sees it, has to do with securing experts who aren't "pressured into submission" by bureaucrats and politicians:

> *"Fawning experts are not useful experts. Fearful experts are not useful experts. In practical politics, too little expertise is more problematic, and more common, than too much".*

One implication of this perspective is that an important job for journalists is to recognise it as a "scandal" whenever politicians try to silence experts in government or distort their findings.

Observation 4: Conversation is at the heart of democracy

One of Lippmann's contemporary readers was John Dewey, the leading American theorist of democracy and education. While Dewey agreed that it was a democratic

[52] Quoted after Patterson. (2013). *Informing the news: The need for knowledge-based reporting*. The Journalists Resource.
[53] Schudson, M. (2006). *The trouble with experts - and why democracies need them.* Theory and Society.
[54] Schudson, M. (2008) *The "Lippmann-Dewey Debate" and the Invention of Walter Lippmann as an Anti-Democrat 1985-1996*. International Journal of Communication
[55] Schudson, M. (2006). *The trouble with experts - and why democracies need them.* Theory and Society.

problem that the public often couldn't grasp the complex issues of the day, he couldn't accept Lippmann's pessimistic conclusions.

For Dewey, democracy was about much more than governance; it was a way of life. The lively deliberation of citizens in their communities was essential. He believed that education and better journalism could help renew a participatory form of democracy by connecting everyday experiences to broader public concerns, fostering active, inclusive, and meaningful public conversations where common problems are identified and debated.[56]

Ordinary people had a lot to bring to the table, even if they didn't have technical expertise. After all, "[h]ow can experts know what people want?" as media critic Jay Rosen puts it in his retelling of Dewey's position in *What are Journalists for?,* an influential book that aims to redefine journalism as a more communal endeavour, much inspired by Dewey's ideas.[57] Schudson, for his part, emphasised that for Dewey communication between experts and citizens was essential mainly to avoid the expert class solely promoting their own interests.[58]

Observation 5: The conversation must be "truth-sensitive"

The German philosopher Jürgen Habermas was directly inspired by Dewey when he developed his theory of a deliberative politics (often popularised as the idea that, under certain conditions, the better arguments can win out through discussions amongst citizens). He, too, worried about technocratic tendencies very early on, warning that they narrowed political deliberations.

The media – and thus journalism – can nevertheless be seen to play a crucial role in Habermas' vision, mediating between institutions and decision-makers on one side and the opinion forming that happens in public and within civil society on the other. In this way, the public sphere feeds elected politicians a constant stream of "problems, information and reasons".[59]

Such ideas about public deliberation have traditionally been part of journalism's "normative core", according to the journalism scholar Steele; it's tied to both of the

[56] Schipani, Vanessa: (2025) *Communicating Policy-relevant Science in a pluralistic society.* Dissertation.
[57] Rosen, Jay. (1999) *What are Journalists for?* p. 66. Yale University Press 1999
[58] Within media and journalism studies, the so-called Lippmann-Dewey debate over expertise was echoed in a debate between James W. Carey and Michael Schudson. For a discussion on this, see Anderson, C.W. (2017). *Knowledge, Expertise, And Professional Practice in the Sociology of Michael Schudson*. Journalism Studies.
[59] Holst, Molander, and Christensen (2023). "Expertise in Democracy" in *Expertise, Policy-Making and Democracy* Cambridge University Press.

central claims about the democratic mission of journalism: that we are holding power accountable and giving the public a voice.[60]

Much has been said about the realism of all this talk about the public sphere, and in recent digital decades it can seem more fanciful than ever. Not every theory of democracy places the same value on public deliberation, either. But as one leading theorist of deliberative democracy, Simone Chambers, emphasised: even if a perfect public sphere doesn't exist, a minimally performing version is a necessary condition for democracy – and part of this is that citizens must have access to reliable information.[61]

For our purposes, one important point might be that in this tradition, the public sphere isn't supposed to be a battleground without norms and standards. Habermas himself famously criticised mass-media's sensationalism for undermining the possibility of rational debate. Habermas-scholar Kenneth Baynes explains that, for deliberation to function properly, the public must be "generally informed *and receptive* to advice that experts can provide".[62]* While participation is essential in this view of democracy, "the presumption is also that collective decisions will be 'truth-tracking' – that is, not in conflict with the best science," as Baynes put it.

This expectation also runs through parts of contemporary democratic theory, as the political theorist Alfred Moore described it. Citizens' deliberations are supposed to be based on what's true and "expert consensus is considered a good proxy for the best current knowledge".[63]

Observation 6: Citizens can build overlapping understanding

In his paper *Rational deliberation among experts and citizens*, Thomas Christiano outlines a framework for thinking about asymmetries of knowledge in relation to democracy – one that may help us define where journalism fits into the picture.

Christiano introduces the concept overlapping understanding – the idea that people in different roles are often able to grasp parts of what those with specialised

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[60] Steele, J. (2016). *Reappraising Journalism's Normative Foundations* in Rethinking Journalism (Ed. Peters, Chris). Routledge. (It should be underscored that Steele himself in this article is highly critical of the fruitfulness of this entire project as he believes it creates completely unattainable expectations of journalism.)

[61] Chambers, S and Kopstein, J. (2023). *Wrecking the public sphere: The new authoritarians' digital attack on pluralism and truth*. Constellations.

[62] **Italics, author's own*. Pratticio, Emillie. (2022). *Can Democracy Survive Without the Voice of Experts? With an Interview with Kenneth Baynes* in Habermas and the Crisis of Democracy. Routledge.

[63] Moore, Alfred. (2017) "Consensus" in *Critical Elitism*. Cambridge University Press.

knowledge are doing. A bureaucrat, for example, might understand the technical reasoning of an economist well enough to translate it into legal or administrative language and pass the knowledge on to politicians. Or, as Christiano writes, they might pass the knowledge on to "relatively sophisticated journalists" who can then explain what they've understood to the public.

In this way, ordinary citizens may also achieve a degree of understanding of the arguments for and against a political decision.[64] That, in turn, allows them to assess – at least to some extent – whether a given policy is likely to contribute to the goals we ourselves hope to see in society. From a democratic perspective, this is what matters most, according to Christiano.[65]

Observation 7: Social and disciplinary diversity is essential for both public deliberations and good governance.

When a range of perspectives is brought into the conversation, it becomes easier to distinguish good arguments from bad ones, to identify more options, and to arrive at better solutions, according to Moore's brief summary of relevant research.[66]

In institutions of science advice, disciplinary diversity not only improves the quality of collective judgements but also helps avoid mistakes. This is because experts can easily become "prisoners of their preconceptions", which makes it harder for them to admit mistakes, take others' knowledge seriously, or check their assumptions.

Just as importantly, diversity helps to democratically legitimise decisions, making it more likely that they will be accepted by the public. Politicians who rely on only one type of expertise may fail to grasp who will be affected by the decisions they make.

"When you have diverse disciplines that bring to the foreground different aspects of a problem – for children, the elderly, the economic dimension, the biomedical dimension – it's more likely that the policy judgements you make consider the range

[64] Such chains of overlapping understanding also play a role in the competition between politicians. They can serve as an incentive to ground their policy in the best available knowledge simply because opponents of, say, a certain taxing scheme, will be quick to point it out if the proposed policy is not grounded in evidence. Experts appearing in the media also knows, as Christiano points out, that others with similar or overlapping expertise are watching. This creates a form of pressure that can function as a form of sanction. If someone behaves unseriously or says things that conflict with established knowledge in their field, they risk being publicly shamed by their peers.

[65] The political scientist Zeynep Pamuk is critical of this last point. According to her, it doesn't solve the problem of knowledge asymmetry. Citizens can't set the goals for democracy without having "some ability to judge the scientific evidence claimed in support of policy decisions". Pamuk, Zeynep. (2021). *Politics and Expertise* pp. 101–102. Princeton University Press.

[66] Moore, A. and Mackenzie, M. (2020). *Policy making during crises: how diversity and disagreement can help manage the politics of expert advice*. BMJ.

of interests that are at stake and don't entirely overlook one of them," Moore said in an interview.

Moore also argues that disciplinary diversity makes it harder for politicians to politicise or hide behind expertise.[67] In crises like COVID-19, for example, it was tempting for politicians either to reject expert advice by claiming it was politically biased, or to shield themselves from accountability by saying they were "just following the science". What is needed then, Moore wrote, is to "make it easier for experts to stay true to their expertise, and harder for politicians to hide their judgements behind the science".

Observation 8: Democracy requires adversarial exchanges, not quiet consensus

Science itself needs "robust debate", according to Thomas Christiano.[68] Biases, groupthink, and parochialism are likely to take hold without a debate that includes many theories, disciplines and – importantly – different segments of society. Christiano wrote that "it is only when all the different sectors of society have the means of articulating their diverse points of view that social science can generate a process of knowledge production that is sensitive to the conditions of all the different parts of society".

Seen this way, democracy is a necessary condition for the total body of expertise in the social sciences to be what he calls "truth sensitive".

Some recent political theory further emphasises the vital importance of dissent and contestation. Alfred Moore argues the authority we grant experts in democracy is dependent on the possibility of public contestation and dissent.[69] It motivates better argumentation and justification, brings out new information, counters groupthink, and reveals blind spots and shortcomings.

In the context of science advice, he argues that diversity isn't enough. Both for epistemic and political reasons there needs to be "open, adversarial exchanges" between different experts and expert groups. Without this sharpening, experts are more likely to make mistakes.

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[67] Moore, A. and Mackenzie, M. (2020). Policy making during crises: how diversity and disagreement can help manage the politics of expert advice. BMJ.
[68] Christiano, T. (2012). " Rational deliberation among experts and citizens " in Deliberative Systems: Deliberative Democracy at the Large Scale (red. Mansbridge, Jane). Cambridge University Press.
[69] Moore, Alfred. (2017) "Contestation" in *Critical Elitism*. Cambridge University Press.

One aspect of this is that it helps to keep a discussion open even after a political decision has been made. Confrontations in the public sphere help preserve "a memory of the interests and values that lost out in any particular decision". This can make it easier to change policy in light of new information.

However, this also creates a paradox that connects directly to worries about distrust and disinformation, polarisation and politicisation: because, while contestation and public scrutiny is needed for democratic legitimacy of expert authority, this kind of questioning can make sustaining authority difficult.[70]

It's difficult for expert advice to avoid getting caught up in politics when it forms the basis for binding decisions, Moore argued. The job of experts in democracy is both to help inform good policy and speak truth to power from a position of independence. Politicisation weakens the very authority that makes this possible.

The challenge is then: "how to have inclusion without collapsing the very concept of expertise – how to engage public judgement in expert practices in a way that does not reduce to populism?"

It seems, as Moore wrote, that expert authority is "at the same time frighteningly powerful and fatally weakened."

Trusted experts or puppet masters?

The problem with the prevalence of elite and expert sources in journalism, as highlighted by Curran et al., is that it leaves little room for civil society and the individual citizen.[71]

A study of which experts were cited by two Austrian broadsheets during the COVID-19 pandemic (Scherling and Foltz), found that experts interviewed were mostly qualified – in the sense that they had published about the pandemic – but that many of them made statements way out of their real area of expertise (such as modellers of viral spread talking about vaccination).[72]

They also found that the media took the experts statements at face value and uncritically used experts with conflicts of interests.[73] The important takeaway, Scherling

[70] *Ibid.*

[71] Curran, J et al. (2013). *Internet revolution revisited*. Media, Culture & Society

[72] Scherling, J and Foltz, A. (2024). *The Age of the Expert—COVID-19, Expertise, and Conflicts of Interest in Austrian Media Reporting.* Journalism and Media.

[73] It should be noted that these researchers apply criteria for conflicts of interest that some will find unreasonable, for example in regarding scientists with ties to the WHO or the Cochrane Foundation as having conflicts of interests due to these organisations indirect connection with the pharmaceutical industry.

and Foltz wrote, is that the media "embraced unbalanced information that amplified official narratives, to the exclusion of alternative voices".

In the end, they concluded, "it might be the voice of the puppet master that we are hearing".

This resonates with concerns about the proper place of expertise in democracy discussed above. We have seen a push in later decades to give "lay people" and "local knowledge" more of a say in the governance of science and in the expert bodies that underpins policymaking – a development that is sometimes referred to as the participatory turn.

Harry Collins, professor of Social Science at Cardiff University (see Chapter 6), has been highly critical of the whole idea that dependence on experts poses a problem for democracy and that science should therefore be "democratised".[74] Difficult science-related questions must be resolved from the top, by some form of consensus emerging from the knowledge elites, he explained in the interview. Ordinary people "have to trust the elites in the same way as they trust whoever manufactured their car or whoever's flying your airplane".

What these observations mean for journalists

What does all this democratic theorising mean for how we should understand the role of journalism in relation to the experts? One takeaway could simply be this: as an institution, journalism is also caught in the tension described in this literature.

On one side lies Lippmann and the epistemic imperative: the audience need reliable information. This often means giving space and weight to those we presume to have the best knowledge.

On the other side stands Dewey and the participatory democratic ideal: to include diverse voices, to help the public sphere remain open and responsive to citizens.

The Code of Ethics for the Norwegian Press, for example, states that "the press has important functions in that it carries information, debates and critical comments on current affairs" and, crucially, that "the press is particularly responsible for allowing different views to be expressed".

Still, it usually isn't the single reporter's responsibility to watch over the public sphere as a whole, ensuring that it is inclusive and pluralistic enough. You might well object that these observations are abstract to your daily work.

[74] Collins, H. (2014) *Are We all Scientific Experts Now?* Cambridge: Polity Press, p. 44; Collins, H. and Evans, R. (2007) *Rethinking Expertise* Chicago: University of Chicago Press, p. 113.

And yet the picture of democracy painted above does suggest journalists can play a constructive role in critically mediating at the intersection of the experts, politicians and the public – and, sometimes, even between the experts themselves.

Political scientists typically recommend better communication between experts and citizens to mitigate the tensions they describe. And more than most, we hope to think, journalists should be able to convey experts' knowledge and reasoning to the public, giving citizens a chance to understand and engage with democracy.

If experts really are as powerful as some of the political thinkers suggest, if advisory committees should indeed be seen as "the fifth branch" of governments, this would imply that journalism should aspire to scrutinise and hold to account experts and scientists as much as we do politicians and other powerful actors.

Holding experts accountable may sometimes be done directly. But it can also be partly accomplished by highlighting legitimate disagreement, and bringing under-represented expertise into the conversation. One promising gateway to fulfilling this role might be watching expert committees and science advice mechanisms more closely, taking note of conflict.

As a German study notes, the media already often seek out scientific expertise that has political, legal, or economic impact.[75] The experts featured in journalism can function as a form of informal science advice, shaping what politicians and policymakers pay attention to, and alerting them to new, socially relevant problems. In this way, journalists – through their expert sources – play a significant role in setting the political agenda.

This kind of "mass mediated expertise" is double-edged. On the one hand, politicians can instrumentalise it, using it to legitimise decisions they have already made – not unlike how formal science advice can sometimes appear to function. On the other hand, the authors emphasise, media-based expert discourse is much harder for politicians to control.

Once expert claims become "public knowledge," they acquire a momentum of their own. As a result, media coverage can create uncomfortable pressure on politicians to act, particularly when expert voices highlight emerging risks, injustices, or neglected evidence.

[75] Petersen, I. (2010). *Mass-Mediated Expertise as Informal Policy Advice,* Science, Technology, & Human Values. 35(6), pp. 865–887.

With this agenda-setting power comes responsibility. There are obvious dangers in helping to generate political pressure based on poorly grounded or fringe science – or expertise that is captured by special interest. But it also highlights the rich potential in using credible expertise to challenge political complacency or popular pseudo-expertise. Journalism can force engagement by drawing political attention to new findings or ignored disciplines that might otherwise fall through the cracks of formal advisory systems.

Often, other experts are best positioned to scrutinise expert and scientific claims. That doesn't mean they will take initiative themselves. Journalists can take the lead, forcing experts and scientists out of their ivory towers or professional silos and thus facilitate a more diverse and potentially more fruitful conversation about evidence used for policy.

Similarly, we can elevate experiences or knowledge from lay people when there are good reasons why they should have been taken into account.

Done well, this may strengthen democratic legitimacy while at the same time having epistemic benefits – supporting the public sphere as a truth-seeking mechanism and, in the end, contributing to better policy outcomes.

Circling back to the hard problem of journalism

All of this, however, leads us back to the question of how we, in daily journalism, select our "expert sources" and how we frame what they are telling us.
This is a process that, at a minimum, requires some judgement of the trustworthiness of the experts' reliability and the relevance of their expertise.

Arguably, this always demands some level of engagement with the substance at hand. Either way, we're yet again confronted with the fundamental problem of epistemic asymmetry.

Journalists sometimes become a kind of experts themselves, able to claw their way up to eye level with their sources when discussing substance – but more often, that's not the case.

How is a (relatively speaking) ignorant journalist supposed to respond wisely and critically to a researcher or expert armed with highly specialised knowledge? And why should people trust journalists if they are not in a position to assess the evaluations and analyses of the expertise they pass on?

Chapter 3: You're gonna have to trust somebody

Key vocabulary introduced in this chapter

- **Social epistemology** A branch of philosophy that studies how we gain knowledge through other people and institutions, and how trust in others shapes what we know.
- **Novice/2-expert problem** Alvin Goldman's description of the situation in which a layperson must choose whom to trust when rival experts disagree.
- **Dialectical superiority** Goldman's term for when one expert in a debate presents arguments or evidence that their opponent cannot refute, suggesting greater credibility.
- **Hierarchy of expertise** Elisabeth Anderson's framework ranking knowledge claims from laypeople at the bottom to leading researchers at the top. (Not to be confused with the hierarchy of credibility.)
- **Dialogical irrationality** Continuing to assert claims that have already been refuted, ignoring counterarguments or new evidence.
- **Epistemic trespassing** When experts speak outside their area of competence without properly qualifying their claims.
- **Epistemic quacks** People who falsely believe themselves to be competent in a field.
- **Epistemic charlatans** People who present themselves as experts despite knowing they lack the relevant competence.
- **Epistemic overstepping** Alfred Moore's warning against journalists trying to "pick winners" in expert debates without sufficient knowledge.

Whether it's talk about how advancements in AI might change society, long-term sea-level projections from climate scientists, or just daily weather forecasts, journalists often report claims they cannot verify and convey reasoning that they cannot competently review.

As journalism scholars Sharon Dunwoody and Robert Griffin have explained, in daily journalism the solution to this validity problem has been to settle with accurately reflecting what the sources say instead. When reporting conflicting science, for example, "it would be disastrous for less specialised individuals to try to ascertain the truth, as their judgements would carry little credibility".[76] But, as Dunwoody

[76] Dunwoody, S and Griffin, R. (2001). *Judgmental Heuristics and News Reporting* in Judgments, Decisions, and Public Policy (red. Godwda J and Fox, JC). Cambridge University Press.

also pointed out, in this way the journalistic norm of objectivity "actually encourages journalists to eschew responsibility for making validity judgements".

This conflicts with emerging norms. Journalists are increasingly expected to be able to adjudicate conflicting claims.[77] He-said/she-said journalism is now considered "lame", as Jay Rosen put it.[78] The question is whether this expectation is at all realistic in many cases.

Journalism scholars simultaneously view journalists' reliance on experts as "at least partly blind", according to a paper by Zvi Reich, Yigal Godler and Boaz Miller.[79] Specialised journalists may gain the knowledge needed to evaluate claims directly on occasion. Investigative journalists and fact-checkers might have procedures that help them in adjudicating expert claims in some situations. But, as they wrote, "this is not the norm in routine journalism, and even journalists with technical command still fall short of actual experts".

When deciding who to turn to for help in understanding a problem, and when accepting expert claims they cannot directly evaluate, journalists are engaging in acts of trust.

But is it necessarily blind and irrational trust?

Are there reasonable ways to decide whose knowledge to rely on? When are we justified in assuming that what we are told is true or relevant enough to pass on?

It turns out that these are exactly the kinds of problems discussed in a corner of philosophy that has been growing in recent decades, known as social epistemology. Could it offer concepts useful to journalism? In this chapter we'll provide some basic examples from social epistemology literature that suggest it does.

Indeed, Godler, Reich and Miller have proposed that this seemingly esoteric subfield could be a "new paradigm" for how journalism operates.[80]

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[77] Reich, Z. and Barnoy, A. (2021): *Disagreements as a form of knowledge: How journalists address day-to-day conflicts between sources,* Journalism, 22(4), pp. 882–900.
[78] Rosen, J. (2009) *He Said, she said journalism: Lame formula in the land of the active user.* Pressthink
[79] Godler, Y., Reich, Z., and Miller, B. (2020). *Social epistemology as a new paradigm for journalism and media studies.* New Media & Society.
[80] Godler, Y., Reich, Z., and Miller, B. (2020). *Social Epistemology as a New Paradigm for Journalism and Media Studies*. Journalism, 21(7), pp. 915–932. See also: Goldman, A. (2001). *Experts: Which Ones Should You Trust?* Philosophy and Phenomenological Research.

What is social epistemology?

Epistemology is the study of what knowledge is, how we get it, and how we know what's true. These questions are traditionally tackled at an individual level; it is highly theoretical.

By contrast, social epistemologists see knowledge as more of a social phenomenon. They are concerned with how our understanding of knowledge is shaped by what other people and institutions in society tell us.

They try to analyse how we come to know things through other people. And, as we'll see, they suggest some unexpectedly practical rules of thumb for whose knowledge we can justifiably trust.

When is it justified to trust others?

According to Godler et al., social epistemology might offer a more realistic account of how journalists gain the knowledge they pass on. Journalism scholars have typically seen the reliance on second-hand knowledge in daily journalism as a professional necessity, but one that is fundamentally problematic. They have been sceptical about journalists' ability to collect second-hand knowledge that can reliably count as true.

But social epistemology starts from the premise that second-hand knowledge is the norm for all of us, even experts themselves. Very little of what we "know" comes from direct investigation. The real debate is about when it is justified to trust others.

This is of relevance for all of journalism, not just for dealing with experts.

The way journalists acquire knowledge, according to Godler et al., is still typically through contact with human sources.[81] Journalistic output, for a large part, consists of people who say things. And often, journalists are too busy to invest the time and resources needed to gain the knowledge and skill required to evaluate claims and do independent investigations. They can't realistically "zap to distant scenes, access every institution or understand every bit of expert knowledge", as the authors put it. We don't, for example, have direct access to the memories of eyewitnesses. But we still must assess whether what they say is reliable enough to be communicated to the public.

Our reliance on others' knowledge is particularly pronounced when selecting scientists and other experts with technical knowledge. How can we ensure those we

[81] Godler, Y., Reich, Z., and Miller, B. (2020). *Social Epistemology as a New Paradigm for Journalism and Media Studies*. Journalism, 21(7), pp. 915–932.

turn to for information and understanding are "real" experts? This is one of the paradigmatic problems in social epistemology.

According to Godler et al., social epistemology is generally a good framework for thinking about this because it offers "a thorough familiarity with biases and failures of obtaining knowledge, and a strong orientation toward best practices in the realm of knowledge-acquisition and truth-seeking."

Helpful rules of thumb

In a foundational 2001 paper titled *Experts: which ones should you trust?,* Alvin Goldman lays out his ideas about how a layperson can justifiably decide which of two or more rival experts is most credible or trustworthy, the so-called Novice/2-experts problem. [82]

Helpful heuristics for judging experts

Five cues novices (and journalists) can use to weigh rival experts.

Heuristic	What to look for	Journalistic caveats
Witnessing debates	Who shows dialectical superiority, answering challenges with evidence the other cannot refute?	Skilled debaters (incl. conspiracy theorists) can sound convincing without real knowledge.
Consensus	Does the expert align with the majority of independent experts?	Beware "manufactured consensus" where agreement comes from copying others, not evidence.
Credentials	Degrees, institutional affiliations, awards, citations, grants.	Credentials lose force when equally credentialled experts disagree.
Conflicts of interest	Financial, political, or ideological ties that could bias judgement.	Interests don't always mean error; bias often comes with deep domain engagement.
Track record	Past accuracy in predictions or advice.	Hard to verify; many predictions are vague or not publicly documented.

Goldman, A. (2001). Experts: Which Ones Should You Trust? Philosophy and Phenomenological Research.

[82] Goldman, A. (2001). *Experts: Which Ones Should You Trust?* Philosophy and Phenomenological Research.

What is an expert, anyway?

A sidenote before we expand on Goldman's main arguments: a lot of scholarly literature, including journalism studies, defines an expert in social terms. (An expert is simply someone who is presumed to know a lot about a subject, or is a person who is recognised as knowledgeable by a professional community. A "media expert" is often just someone who is presented with expert authority.)

Goldman, however, defines an expert objectively: an expert is a person who is in possession of more true beliefs in a domain than most people and who has the skill to successfully deploy this knowledge to new questions.

Goldman discusses five criteria for judging trustworthiness when confronted with rival expert messages:[83]

1. Witnessing debates

While a novice cannot, by definition, assess technical expertise, they can engage with the quality of the evidence in more indirect ways by witnessing debates between dissenting experts. How well are they responding to each other's arguments? If one expert display what Goldman dubs "dialectical superiority" by presenting evidence and arguments that the other is unable to refute, it may give an indication of whom to trust. One can also look at how smoothly and quickly the experts respond to such challenges.

Judgements like these are delicate because, Goldman emphasised, skilled debaters can be polished in a way that makes them appear more informed than they are. Others have pointed out that conspiracy theorists, for example, are often very good at coming up with counterarguments – to such an extent that it suggests that the ability to refute arguments may rather be a sign that an expert is *not* trustworthy.[84]

2. Consensus

Secondly, one can try to check which of the competing experts are in alignment with most other experts in the field. Being part of such a consensus may indicate credibility and induce trust. The problem, however, is

[83] The presentation of Goldman's paper is partly guided by secondary sources: Holst and Molander (2019) *Epistemic Democracy and the Role of Experts*. Contemporary Political Theory; Moore (2017) *The Problem of Judgement* in Critical Elitism. Cambridge University Press.

[84] Harris, KR. (2025). *"Intellectual Virtue Signaling and (Non)Expert Credibility*. Journal of the American Philosophical Association. Harris even argues that effectively refuting arguments can actually be a sign that an expert is *not* trustworthy, and he cites flat-earthers as an example.

that these additional experts must have made independent judgements on the matter at hand for this argument to be fully valid. The debate over whether a lab leak could have caused the COVID-19 pandemic might serve as an illustration. Even if a survey shows most virologist and epidemiologists support a natural origin, this isn't necessarily a weighty enough reason if the experts surveyed are simply relying on the opinion of a couple leading researchers without having looked at the evidence themselves.[85] For journalists, this translates into a question: how was agreement produced?

Boaz Miller has added further nuance to this by pointing out that researchers reach consensus in many different ways, including by fighting common enemies or having biases in common. Miller then puts forward three criteria that he believes can help establish whether consensus is truly knowledge based: a) that all parties are committed to the same evidentiary standards, b) that the consensus is built upon varied lines of evidence and, at last c), that consensus is socially diverse.[86]

3. Credentials

Another approach, which is similar in that it appeals to other experts and in a sense redistributes trust, is to look at credentials such as degrees and academic awards or institutional affiliations. This can, along with other reputational indicators (for example rankings, research grants, citations and score on the h-index) add to the credibility of the message. This is of little help, however, when experts with similar credentials disagree, which is often the case.[87]

4. Conflicts of interest

A fourth option is to try and check for biases and interests. Do any of the experts have a motive to lie or mislead? If there are clear signs that one of the competing experts has economic interest in the question under discussion (for example, by getting money from a pharmaceutical company), then one could reasonably lend their message less credence than the expert without any personal interests, according to Goldman. However, in practice, it is often difficult for a novice to recognise such bias – especially when it comes in

[85] Proponents of the lab leak theory frequently argue that one paper published in Nature Medicine in March 2020, *The Proximate Origin of Sars-cov-2* by Andersen et al., for a long time shaped the whole discussion about how the pandemic started.
[86] Miller, B. (2013). *When is consensus knowledge based? Distinguishing shared knowledge from mere agreement*. Synthese.

subtler forms, such as status-seeking or interests in defending some academic approach. Whole fields of research can, as Goldman wrote, sometimes be "infected" by the same bias or politics.[88]

Additionally, as Holst et al. wrote, having an interest does not mean you are incorrect.[89] Indeed, experts who might clearly be deemed disinterested may have less expertise on the matter at hand. And yet engaging deeply with a domain means many forms of bias take hold.

5. Track record

Ordinary people's best source of evidence when judging trustworthiness is, according to Goldman, an expert's track record. How often have they been right before? You don't need to understand how modelling in meteorology works to assess whether the weather forecast is usually correct or not. If correct, you can simply infer the forecast was well-founded and the expert probably knows his stuff.

In the same way, an alleged expert that is repeatedly wrong in their predictions should be trusted less. The problem is that it in many cases it will be difficult to find past predictions to look at. And, even you find them, they are often of the sort that can't be easily verified or falsified.

In addition, even scientists with an astonishing record can fail to adapt to new evidence. As Cardiff University's Harry Collins (see Chapter 6) puts it, experts have a tendency of "fighting the last war – the one they understood".

When consensus is hard to identify

Working out the mainstream scientific consensus – if it exists at all – can be more challenging than one might think, according to Harry Collins, a sociologist at Cardiff University. Even when mainstream scientists have reached a high level of agreement on a topic, there will always be some determined and credentialed contrarians making their mark in the literature.

[88] For example, some branches of economy are often accused of promoting neoliberal solutions. Parts of social science, such as postcolonial theory, is similarly perceived as politically activist. Holst, Christensen and Molander. (2023). *Epistemic worries about expertise,* Expertise, Policy-Making and Democracy. Routledge.

[89] Holst and Molander. (2019). *Epistemic democracy and the role of experts.* Contemporary Political Theory.

The difficult task, then, is to get to "the collective beliefs of the relevant community".[90] You need to know when the mainstream community has reached a level of consensus that cannot be denied or contradicted.[91]

Remember: there can be both "manufactured" consensus and "manufactured controversies".[92]

Expertise often keeps good company The history of science shows that people who go against the prevailing view are sometimes correct. But without privileged knowledge, aligning yourself with one of them is just a senseless gamble with long odds, according to Collins. It's safer to keep in good company with the mainstream.

Science has organisational signals Understanding the basic mechanics of science can be invaluable – and maybe especially for journalists that have to decide which disagreements actually matter for policy and the public. This calls for what Collins dubs sociological meta expertise: knowing how science is organised, how evidence is produced, and how authority is recognised within academia.

In 1999, South Africa's president Thabo Mbeki decided that HIV-positive pregnant women should not receive the antiviral drug AZT, justifying his decision by pointing to "a huge volume of scientific literature" indicating that the medicine was "a danger to health".[93] He wasn't entirely wrong: there really were scientific publications critical of this medicine – and you could find academically credentialled people that were worried.

But the mere presence of researchers or papers critical of something does not necessarily mean there is an ongoing, genuine professional dispute: "There are enough publication outlets in world science for a dispute to continue for generations even though in the heartlands of the science these are ignored."

According to Collins, anyone who knew how to search a medical database could have seen that most papers critical of AZT were both outdated and vanishingly rare by 1999 – clear signs that any real professional controversy had been settled. One didn't have to be a physician to notice this; it was enough to read the social signals of science: check publication dates, the journal's standing (impact factor, citation rates), and the authors' broader reputations. In this case, a leading critic had also claimed HIV had never been proven to exist – a glaring red flag.

A little statistical knowledge goes along way

Similarly, Collins argued in our interview that journalists in the UK completely missed the opportunity to call out that there was nothing to his theory: "They

[90] Caudill, Collins, and Evans. 2024. *Judges Should Be Discerning Consensus, Not Evaluating Scientific Expertise*. University of Cincinnati Law Review. This paper, written in the context of courts, offers a more in-depth discussion about how to judge claims about representing a consensus.
[91] *Rethinking Expertise*, p. 48.
[92] Caudill, Collins, and Evans. 2024. *Judges Should Be Discerning Consensus, Not Evaluating Scientific Expertise*. *University of Cincinnati Law Review*.

could have seen it for themselves. You needed hardly any expertise to read those early papers and see that they were nonsense."

Knowing just a little about statistics would have enabled them to see that Wakefield's small Lancet study with a handful of children lacked statistical relevance, not least because epidemiological studies did not support the story. The journalists should also have been literate enough to question the basic correlation-causation fallacy: in a certain age window, a certain number of children will inevitably receive both an MMR injection and a diagnosis of autism. The correlation was, as Collins explained elsewhere, no more proof of causality than the "first ingestion of a kiwi fruit".[94]

These rules of thumb are cause for neither "elation nor gloom", according to Goldman. The situation facing a novice who is confronted with rival expertise is "daunting". But this exercise and others like it suggest that it isn't impossible to make a *reasoned* choice.[95]

For journalism, it offers both reassurance and a challenge. This line of thinking may provide some hope that journalists, even without deep subject-matter expertise, can rationally justify giving credence to certain expert voices over others – if they are attentive to cues like argumentative performance, track records, and real consensus. But it also underscores that this is not at all an easy or intuitive task.

Anderson's criteria for expert selection

Worth highlighting in this context is the paper *Democracy, Public Policy, and Lay Assessments of Scientific Testimony* by philosopher Elisabeth Anderson. In it, she addresses journalism directly while at the same time being much more optimistic about the prospects of non-experts successfully determining who they should trust.

All that is needed, she claimed, is a normal education and access to the internet. Echoing many of the clues already mentioned, Anderson presented several criteria we can use to choose whom to trust when it comes to scientific claims:

[94]Collins, H. et al. (2022). *The Face-to-Face Principle: Science, Trust, Democracy and the Internet*. Cardiff University Press, pp. 189–217.

[95] This is of some importance for those who think about the rightful place for science and expert advice in democracy: if we're not completely blind when accepting expert claims, it may make it more acceptable to rely on experts in decision making and to delegate power to expert bodies. Christensen, Holst and Molander. (2023). *Expertise in democracy* in Expertise, Policy-Making and Democracy. Routledge.

Do they have access to evidence?

Does the alleged expert have access to the relevant evidence and the ability to make use of it? Anderson outlines a hierarchy of expertise and argues that we should quite simply give more weight to claims depending on how high up the hierarchy those making them are positioned.

At the bottom are laypeople and individuals with bogus degrees. Higher up are those with education or research competence in related fields. Among the highest are active researchers in the field who are frequently cited by peers or succeed in the competition for research funding.

But the throne goes to leaders in the field – those who, for example, have produced groundbreaking research that has created consensus, or opened up new areas of study, who receive important honorary distinctions, leadership positions, and so on.

How honest are they?

You must be able to judge whether the experts are honest about what they believe. This is not just about whether they are sincere in their beliefs, but whether they avoid misleading you by only telling you selected things they believe. This can be assessed by looking at things like conflicts of interest, whether the person has previously been dishonest (plagiarism, research fraud, as well as past statements that were misleading, such as quoting out of context, misleading with statistics, cherry-picking data). One should also look at whether the person misrepresents opponents' arguments, and whether they make false accusations against them. Some of this is easy to evaluate, even for laypeople, Anderson claimed.[96]

Are they open to new information?

You must be able to assess whether the experts are receptive to counterarguments and new evidence. Someone who arrogantly ignores counterarguments or new findings from others with relevant expertise, while asking you to take their word for it, is unlikely to be trustworthy. There is

[96] By contrast, K. R. Harris is sceptical of related claims that "moral superiority" or the display of intellectual virtues should be taken as signs of trustworthiness in an alleged expert. Social media is full of examples of charlatans who *perform* intellectual virtues – such as independence, courage, and open-mindedness – and who 'dare to think for themselves'. Just think of promoters of alternative medicine. Legitimate experts, on the other hand, won't necessarily demonstrate these virtues. For example, they might refuse to engage with creationists, climate deniers, or alternative medicine advocates. See Harris, K.R. (2024). *Intellectual Virtue Signaling and (Non)Expert Credibility*. Journal of the American Philosophical Association , Vol. 11 , Issue 1

then no reason to believe their views are based on any rational assessment. She gave the following example:

> ***Evolution Denialist:*** *"There are no examples of transitional fossils between one species and another."*
>
> ***Palaeontologist:*** *"Consider the whale. We have a line of fossils starting from the 4-legged ungulate Sinonyx, moving to Pakicetus, Ambulocetus, Rodhocetus, Basilosaurus, and Dorudon, before we get to modern toothed whales. The line is impressive for showing a gradual loss of hind limbs, steady migration of nostrils from the front to the top of the head, forming a blowhole, and continuing development of other characteristics of modern whales, such as their teeth.*
>
> ***Evolution Denialist:*** *"There are no examples of transitional fossils between one species and another!"*

There is also cause for suspicion if the alleged expert avoids peer review or is not sufficiently transparent about their methods for others to evaluate their research. Anderson further argues – perhaps controversially – that it is a bad sign if a researcher publishes their ideas in the press before presenting them to peers.

Additionally, Anderson refers to what she calls "dialogical irrationality": continuing to assert claims that others have refuted. One should also be wary of people who promote "crackpot theories" in other discussions (for example, that HIV does not cause AIDS) or are associated with "crackpots", for instance by publishing their work in the same channels as them. Some of this is easy to detect even for laypeople, though what counts as a crackpot can be harder to determine. Homeopathy is mentioned as an example of something that seems obviously nonsensical to experts, but not necessarily to laypeople.

When to suspend judgement

In addition, Anderson places a very heavy weight on adherence to scientific consensus as a sign of credibility. If consensus is not achieved, then lay people should simply "suspend judgement". She suggests looking at things like consensus statements by key institutions (e.g., scientific academies), surveys, as well as reviews and meta-analyses of peer-reviewed research to find out whether consensus is achieved.

Anderson uses the debate on anthropogenic climate change as an example of how it is entirely possible for ordinary people to apply all of these criteria with the help of some simple searches on Google and Wikipedia.

The obvious objection is: if it's so easy, why are there still people who don't believe in climate change? Anderson pointed out that people tend to believe what fits their political values. And doing active research is time-consuming. Many prefer to remain passive.

But she also blamed journalists who report in false balance or who engage in advocacy journalism against scientific consensus. In both cases, journalists contribute to unnecessary doubt, according to Anderson. She argued journalistic norms should therefore be changed:

> *"Instead of first stating and then correcting false claims, the facts should be reported first, and affirmatively. False denials of true claims, if reported at all, should be reported as negations of the facts. Media reports should refuse the balancing norm for science reporting if there is overwhelming scientific consensus, and refuse to treat unreliable sources as if they were authoritative."*

We'll return to this topic in Chapter 8, where we will discuss how a narrow focus on consensus may also be problematic in science journalism.

The underbelly of expertise: misplaced trust

Why do damaging misconceptions persist even when evidence refuting them is easy to access? Despite the overwhelming availability of solid evidence, false beliefs continue to flourish, from climate change denial to vaccine hesitancy.

These examples shouldn't be dismissed as cases of ignorance or a general distrust of experts, according to philosopher Michel Croce.[97] The real problem, he wrote, is misplaced trust.

[97] Croce, Michel (2025). *Misplaced Trust in Expertise: Pseudo-Experts and Unreliable Experts*. Social Epistemology.

There are lots of people promoting dubious and wrong ideas who appear to the public to have all the hallmarks of being genuine experts. This is "the dark side of expertise".[98]

Unreliable scientists like this shouldn't be confused with otherwise reliable experts making genuine mistakes, according to Croce. After all, scientific theories quite often turn out to be wrong in time.

He identified two markers of reliability:

1. That the expert provides *adequate reasons* that are in adherence to standards in their field, and
2. that their testimony is calibrated to the *quality of these reasons*.

In practice, this means that uncertain claims should be properly hedged while established facts are communicated more directly – advice that could also be applied to journalism.

A taxonomy of deceivers

Croce also provided a guide to different kinds of unreliable expert sources:

Fake expertise: pseudo-experts and pseudo-scientists

These are people who talk as if they have expertise, and who are perceived as experts by their followers, but are not actually trained in the relevant field. To trust them is misplaced because they lack competence.

Pseudo-experts will claim to know things when they don't, and become influential because they hold contrarian views.

As an example, Croce mentions the anti-vaccine activist and filmmaker Del Bigtree. Pseudo-scientists, more specifically, will promote non-science as if it were science, using scientific language in domains where there is no scientific knowledge to speak of (e.g. alien abduction, aromatherapy).

Non-experts may put misplaced trust in these people because it's difficult for them identify real competence. In the eyes of the audience, these fake experts may seem perfectly fine even if one applies many of Goldman's criteria: they can

[98] As an example of misplaced trust, Croce mentions the best-selling author Malcolm Gladwell's famous claim that researchers have settled on 10 000 hours being a "magic number" for acquiring true expertise. This is both false and unwarranted, according to Croce. There is no consensus on this matter. Gladwell's readers thus ends up with incorrect beliefs about expertise itself.

have good communicative skills, can boast about a track record of achievements and even have formal qualifications or positions, sometimes connected to organisations they have created themselves.

Rogue experts

This category is even more dangerous, Croce argued in his paper. Rogue experts are people that can have had splendid careers with important contributions to their fields before gradually or suddenly becoming unreliable, and beginning to disseminate dubious information.

Croce mentions Robert D. Malone, a scientist who had done early work on the mRNA-technology and held positions in pharmaceutical companies but started spreading disinformation during the pandemic (including on *The Joe Rogan Experience*) attacking vaccines on dubious grounds and promoting Ivermectin as a COVID-19 cure. In June 2025, he was appointed by Robert Kennedy Jr. to the vaccine panel at the CDC.

Another example is Luc Montagnier, who in 2008 got a joint Nobel prize for co-discovering HIV, but later supported homeopathy and ideas about vaccines causing autism.[99]

Trust in rogue experts is misplaced not because they lack competence but because they are unreliable: they fail in calibrating the confidence of their claims against the available evidence, Croce argues. They are dangerous not just because they are spreading incorrect information but also because it will undermine trust in mainstream expertise when it turns out they were untrustworthy.

For journalists, rogue scientists pose a particular difficult challenge as there is usually good reason to presume they know what they are talking about (at least at first). People who used to be reliable sources, suddenly are not.

But often, Croce suggested, there will be red flags. For example, Malone had made problematic statements about mRNA vaccines earlier. Others will have a track record of being accused of scientific misconduct. Such information isn't always easily accessible for laypeople but might be available for journalists.

[99] The phenomenon of Nobel Prize winners feeling empowered to pontificate on topics outside their expertise, sometimes promoting strange or stupid ideas, is dubbed the Nobel Disease.

Epistemic trespassers

These are experts who have the expertise to make good judgements in one area but begin making statements as experts in fields where they lack competence – and they do so without adequately qualifying their claims.

While Croce acknowledged that some level of trespassing is necessary to address interdisciplinary questions, he also warned that it can cause significant harm when trespassers try to persuade others to grant them more credibility than they merit.

For journalists, it is crucial to be aware of this phenomenon, as it is not always easy to tell when a source shifts from speaking within their area of expertise to offering unqualified opinions on topics outside it. They may not even realise they are doing so, especially when expressing authoritative views on issues that are value-laden.

In practice, journalists use expert sources in a way that may tempt both journalists and experts to stretch beyond their domains. This can sometimes be important: for example, for sustaining debate on pressing issues or for challenging biased expert communities.

Accusing people of epistemic trespassing can also be used as a rhetorical device for parking legitimate critique. Journalists could nevertheless take more care to provide context to delineate when an expert is speaking within their core competence and when they are not.

Quacks, charlatans and predatory experts

The philosopher Christoph Jäger provides other noteworthy distinctions between different false authorities. Some do not really pretend to be experts but end up being perceived as one. These are *unintended false authorities*. Journalists might fall into this trap when asking experts about a topic without understanding that it falls outside their area of expertise.

Others seek out expert roles, but are fake. Jäger puts such fake authorities into two groups:

- *Epistemic quacks* are people who falsely believe themselves to know what they are talking about.
- *Epistemic charlatans* present themselves as expert but do not themselves believe they are competent.

Finally, Jäger discusses *predatory experts*: “people who use their epistemic authority as a cover for predatory behaviour within the domain of their expertise”, abusing the

epistemic trust granted them. Think of the psychiatrist who hides his sexual transgression towards a patient behind some psychoanalytical argument.

Any lessons learned?

How helpful is any of this for journalism? Many of the clues for trustworthiness, as well as the epistemic traps described in social epistemology, will be old news to experienced journalists. They align well with established ways of journalistic inquiry, but are not revolutionary.

The clues from social epistemology can only get you so far. In practice, none of them work well unless combined with the acquisition of a level of knowledge that equips you, at least to some extent, to judge the quality of evidence and arguments. As political philosopher Moore emphasised in an interview: "The dismal answer is there are no shortcuts."

Journalists are faced with a paradox, Moore contended: on the one hand, it would be "epistemic overstepping" if journalists try to pick winners in expert debates. But at the same time, we can't allow ourselves to be manipulated or to risk passing on harmful misinformation. "You then can't get away from the need to exercise some substantive judgement about the quality of the sources," Moore said.

> *"You're going to make selections. You're going to decide who to talk to, who to foreground, and how to characterise the positions in the debate. And you can't be neutral in those judgements. You will be acting as a meta expert, no matter what you do."*

And even if these clues did reliably help with the problem of whose technical claims one should trust, it wouldn't necessarily make transparent verification possible.

Nevertheless, social epistemology provides a new vocabulary for the pitfalls and opportunities journalists encounter when navigating expert knowledge. And the discussions can sharpen journalists' critical thinking and awareness of their own limits when facing technical analysis and disagreement between scientists.

Chapter 4: Remedies for ignorance (with Zvi Reich and Kai Kupferschmidt)

Key vocabulary introduced in this chapter

- **Epistemic inferiority** Zvi Reich's description of journalists' structural disadvantage compared to experts, and the need to recognise and work intelligently with this gap.
- **The Great Endarkenment** Philosopher Elijah Milgram's term for an era of hyper-specialisation, where even experts struggle to understand each other and cross-disciplinary decisions become nearly impossible.
- **Shadow board** Reich's proposal that journalists systematically cultivate a panel of trusted experts across domains to serve as ongoing advisers
- **Metacognitive strategies** Practices of reflecting on one's own level of understanding, identifying "unknown unknowns", and guarding against epistemic arrogance.
- **Generalist-specialist model** The analogy to medicine: journalism needs both deep subject specialists and generalist reporters who can integrate and refer knowledge across fields.
- **Heuristics of expertise** Practical rules of thumb (such as consensus checks, publication records, or peer evaluations) that journalists can use to assess credibility when they cannot directly evaluate technical claims.

"It's not even about humility, it's far beyond that", the journalism scholar Zvi Reich said in an interview for this report. "It's about inferiority."

Reich, who is a professor at the Ben-Gurion University in Israel, has studied the challenges expertise poses for journalism for years, looking at how journalist gather information, use sources and attempt to adjudicate conflicting claims in complex domains. At the heart of these struggles lies the epistemic asymmetry described in the previous chapters.

In the previously mentioned 2020 paper Reich and his co-authors Yigal Godler and Boaz Miller argued that social epistemology should make us cautiously optimistic about journalists' ability to – at least in some cases – reliably trust the right experts and to adjudicate between competing expert testimonies even when they can't assess the information directly.

Interview Reich today, and he seems less convinced. The strategies only work "arbitrarily", he said. The basic problem prevails: expertise can only be evaluated

top-down. And to deal with this, journalists first need to come to terms with their own epistemic inferiority vis-à-vis the experts. "You must be very intelligent in your understanding of your inferiority – and then tailor your strategies accordingly", he said.

The Great Endarkenment

The epistemic condition for journalists is only getting worse, Reich emphasized. He believes we're entering an era of hyper-specialisation, referring to the book *The Great Endarkenment* by the philosopher Elijah Milgram who describes a world where even experts are unable to understand each other, and where decisions that require input from multiple disciplines become highly difficult. Soon, no one will be able to make informed decisions about anything outside their own narrow domain of hyper-expertise, according to Milgram. This is undermining the very premise of Enlightenment — the idea that individuals can reason and judge for themselves. And this trend has been catching up with journalism, according to Reich. Even areas like policing, infrastructure and energy are becoming too complex for ordinary journalists to understand, he warned. "Journalism is at a junction."

"The entire architecture of knowledge in today's journalism is shaky. It is losing its relevance very, very quickly," Reich said. "Journalists keep using ancient methods that maybe could work during the '60s but are losing their effectiveness today", he said.

Reich pointed out that few other professions outsource as much of what he calls "the problem of knowledge" as journalism does. One possible exception is the intelligence services, but there, knowledge production is more of an organisational effort. Information is typically gathered systematically from a wide range of sources – from satellites to people on the ground – and cross-checked before any conclusions are drawn. By contrast, daily journalism still tends to rely mostly on individual sources to gather information and quick individual judgement as the way of controlling the quality of it: "You just make a phone call, no problem," as Reich described the process.

Why we need a new approach to knowledge in journalism

In principle, journalists should be better equipped than the "lay people" or "novices" discussed in theoretical literature on expertise. Not only are they experienced in information gathering and in asking questions, but they also tend to have unique access to multiple knowledgeable sources that can help provide a sense of the strengths and weaknesses of an argument or claim, and give it context.

But Reich wants journalist to be much more systematic in their way of doing this than they typically are today. In the knowledge society, journalists cannot live "hand to mouth", he said. Too often, the journalist isn't knowledgeable enough to handle complexity. We must learn to "know the difference between the complexity of the world and the simplicity of the story, and dance elegantly between both", Reich said, maybe alluding to Lippmann.

In a previous paper, Reich has warned that "the current crisis of the Western media is also a crisis of journalistic expertise in the subject matter of the news they cover" – and he has lamented the death of the beat journalist,[100, 101] More than ever, we need specialised reporters who can follow a subject long enough to develop substantial domain knowledge.

But the opposite is happening. The knowledge gap between journalists and expert sources is steadily widening – a trend that is reinforced by the fact that there are simultaneously fewer journalists in total. To demand higher epistemic standards from journalists, Reich pointed out, seems unrealistic when news organizations are struggling even to maintain current standards.

Now, he believes it is time to rethink our whole approach to knowledge. And to do that, journalism should take a cue from medicine, because this may be the area where the problems of specialisation and knowledge asymmetries are best understood.

A shadow board

Medicine has increasingly been fragmented into sub-disciplines since the middle of the 19th century but have retained an important role for the general practitioner. In medicine, general practitioners and specialists are mutually dependent; they define one another. A competent general practitioner knows the limits of their own "jurisdiction" and is trained to recognise when and where to refer patients onward — which is a special form of expertise in its own right.

According to Reich, this should inspire how we think about expertise in journalism. The first lesson, Reich argues, is that journalists should cultivate a kind of "shadow board" of specialists they can regularly consult. This is needed for every major domain they cover. Without it, one is "helpless", Reich said.

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[100] Reich, Z. and Lahav, H. (2021). *What on Earth Do Journalists Know?* Communication Theory.
[101] Reich, Z. and Godler, Y. (2017) *The disruption of journalistic expertise* in Rethinking Journalism Again (ed. Chris Peters and Marcel Broersma). Routledge.

This is not just about the common practice of gradually building up a network of trusted people you can talk to about a subject, Reich argues. Journalists need to be much more systematic and proactive in selecting their advisers. One should think almost institutionally – ensuring that the members cover all the areas you regularly report on as a journalist, and that they genuinely know what they're talking about. This is not unlike how medical general practitioners might think about the specialist disciplines they surround themselves with.

For Reich, the problem of expertise in journalism goes much deeper than simply choosing which sources to use in a story. That's a dangerous path, he believes, because it reduces the problem to a question of how one outsources the problem of knowledge. It's cheap shortcut. What we need instead, he argues, is a higher level of awareness and sensitivity in how we think and act throughout *the entire process* of knowledge gathering – especially before deciding whether a story is worthwhile or not. The proposed shadow panel can be very helpful at this stage, functioning as a "seat belt" that may save the journalist from disaster.

The Dunning-Kruger journalist

In addition to cultivating deep relationships with trusted advisers, journalists must of course practice making independent judgements. But this is difficult, given the tension between time constraints and the depth of knowledge often required for responsible reporting. "Journalists must understand that they have inferior knowledge about almost everything – and the first remedy for inferior knowledge is investing more time," he said.

Even when busy, developing what Reich calls metacognitive strategies might help. Part of this is about reflecting more deeply on "unknown unknowns": are you overconfident in your assessment of a situation? According to Reich, unwarranted epistemic arrogance is a common problem in journalism. For example, we often don't leave enough room for uncertainty in our reporting – especially in science journalism.

To mitigate this, journalists need to become more aware of the level of understanding they possess. To be able to do this, they must take the time to learn much *more* than what's strictly necessary to produce each individual story, Reich stressed. "Journalists must delay the point at which they say, 'Okay, I got it,'" Reich said. "Because no, you didn't!"

He refers to the Dunning-Kruger effect – the psychological notion that people who know very little often believe they know a lot, while those who know a lot tend to

doubt themselves. Only once you've accumulated enough information can you begin to realise what you don't yet understand, argues Reich. "I'm urging journalists to go a few steps further to understand how little they actually know, and to develop an intelligent and realistic sense of their own understanding." In this endeavour, common sense is "the enemy", Reich said, because it inflates the feeling of knowing. For example, Reich said a common mistake in financial reporting is to treat macroeconomics like household budgeting.

And yet, "the miracle of journalism", as Reich put it, is that journalists often do a good job despite their epistemic inferiority. It's a difficult thing to accomplish – often comparable to being a one-person intelligence agency without formal training, or to being a general practitioner in medicine: "Some journalists are amazingly impressive, because against all odds, they stay up to date, they reflect, they think on a metacognitive level. They draw conclusions and consult experts when needed. They have this shadow board of advisers."

Newsrooms must learn to recognise the value of the expertise these journalists build up over time, Reich argued, even if isn't formally credentialed. Whether it's experienced data journalists or skilled interviewers – what these journalists know must be recognised as the domain-specific expertise it truly is. We must reestablish the role of the specialist – but also recognise the generalist as a distinct and equally important kind of specialist. As in medicine, "one cannot exist without the other", Zvi Reich emphasised.

Learning from science journalism

Could general news journalism learn from science journalism's way of handling claims based on specialised knowledge? A defining feature of science journalism, after all, is the expectation that reporters will have other scientists evaluate new research and provide context.

Kai Kupferschmidt is a German journalist and contributory correspondent for *Science* whose main beats are infectious diseases, global health, and disinformation. He is trained in science, with a degree in Molecular Biomedicine. But that doesn't mean the knowledge asymmetry isn't still a real problem – even when he writes about closely related fields. "I did five years of molecular biomedicine. That doesn't mean I can do top-down evaluation of the expertise of a top-class virologist," he said.

Kupferschmidt said heuristics similar to those talked about in social epistemology can sometimes be useful. (For instance: trying to identify consensus and looking at

publication records to gauge whether different experts are valued in their field.) But these methods are not enough. The philosophical problem of judging expertise is "not really resolvable", Kupferschmidt contends. However, he also emphasised that journalists have a unique tool at their disposal: the opportunity to use experts' evaluations of each other.

"The biggest thing for me in the end – the heuristic that I use as a journalist – is to try to talk to people until I'm not hearing anything new anymore," Kupferschmidt said. At that point, he added, you start getting a good sense of the credence you should give a claim. "I can't say which of these 10 virologists is the best, but I can find a group of 10 virologist that clearly are seen as some of the best, and then I can figure out what they think about the thing that one of them is saying," Kupferschmidt explained.

This approach also helps exposing who *not* to trust: "If I do an interview with someone and he says something that I've clearly heard from five other people is wrong, then that works as a check."

When talking to many leading domain experts, journalists can even end up having *more* information than the individual experts on the particular topic at hand, especially if it's about an evolving situation with lots of uncertainty. Kupferschmidt experienced this in the COVID-19 pandemic, for example, when the first new variants appeared, such as Alpha or Delta. For a short time, he felt he sat on more pieces of puzzle than any of the many researchers he talked to had in isolation from each other. "It's not just a one-way street. You can sometimes know things that the expert doesn't yet know, because there's also the question of access to certain types of knowledge," Kupferschmidt said.

Chapter 5: On foxes, hedgehogs and predictions in journalism

Key vocabulary introduced in this chapter

- **Superforecasting** Tetlock's term for the small group of forecasters who consistently outperform others by using probabilistic thinking, flexibility, and careful updating of beliefs.
- **Probabilistic forecasting** A method of making predictions in terms of probabilities (percentages) rather than vague terms like "likely" or "possible," which allows accuracy to be measured and improved.
- **Speculative tango** Blom et al.'s description of the push-pull between journalists and experts, where speculation can serve as mutual checking but can also spiral into overconfident predictions that mislead the public.
- **Foxes and hedgehogs** Isaiah Berlin's metaphor, adapted by Tetlock, for two cognitive styles of experts: foxes know many small things and are flexible but less confident; hedgehogs know one big thing and apply it everywhere, offering compelling but less accurate predictions.
- **Public intellectuals** Experts or commentators who cross disciplinary boundaries to interpret and connect knowledge for a wider audience, bridging between specialised experts and the public.

Given that Alvin Goldman sees track records as the most promising way for non-experts to judge expertise, it's worth noting that this idea has gained significant traction in recent years – largely thanks to a decades-long research programme on expert political judgement led by the American psychologist Philip Tetlock. This body of empirical work powerfully illustrates the importance of past performance over prestige when evaluating the quality of expertise. And it may hold important lessons for journalism.

Between 1994 and 2004 Tetlock checked thousands of expert predictions about things like economics, geopolitics, wars, and financial markets. The results were striking: average experts were "roughly as accurate as a dart-throwing chimpanzee" – in other words, not better than random guessing.[102]

This body of work, described in the books *Expert Political Judgement* and *Superforecasting*, could have implications for journalism, because the role we often

[102] Tetlock, P. and Gardner, D. (2019). *Superforecasting: The Art and Science of Prediction*. London: Random House Business, p. 4.

cast experts in is exactly as a forecaster. Scholars are thus increasingly interested in the role future-oriented claims play in journalism, including how journalists and experts co-create projections.[103] We seek speculation not just because it's tempting to use public suspense to generate clicks, but because it's sometimes the only way to serve the public's needs, address people's fears and hopes, and make it possible for them to evaluate political choices or decide what to do for themselves.[104]

As Tetlock himself wrote: "Open any newspaper, watch any TV news show, and you find experts who forecast what's coming. Some are cautious. More are bold and confident. A handful claim to be Olympian visionaries able to see decades into the future. With few exceptions, they are not in front of the cameras because they possess any proven skill at forecasting. Accuracy is seldom even mentioned. Old forecasts are like old news – soon forgotten – and pundits are almost never asked to reconcile what they said with what actually happened. The one undeniable talent that talking heads have is their skill at telling a compelling story with conviction, and that is enough."[105]

Monitoring expert performance

With Tetlock one could argue that if accuracy is a core value of journalism, then this practice needs to change. A first step could be to recognise that track record matters more than status when it comes to accuracy – according to Tetlock it is actually the case that "the more famous an expert was, the less accurate he was".[106]

A second step would be for newsrooms to systematically monitor the success of expert forecasters and consult that data when deciding which sources to elevate in public discourse. Doing so would also require encouraging predictions that are precise enough to be measured – for example, by asking experts to think in probabilistic terms and express their judgements in percentages, rather than vague terms like "probable" or "likely".

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[103] Amit Dahni et al. (2024). *An Ecosystem of Collective Futures: How Journalists and Experts Co-Construct Projections in Hybrid Media Environments*. Digital Journalism.
[104] See Blom, J N, et al. (2021). *The Potentials and Pitfalls of Interactional Speculations by Journalists and Experts in the Media: The Case of COVID-19*. Journalism Studies. The authors point out that journalism have not only moved on from the classic questions of "What", "When" and "Who" to ask "Why" – it also increasingly asks "What if?" and "What now?".
[105] Tetlock, P. and Gardner, D. (2019). *Superforecasting: The Art and Science of Prediction*. London: Random House Business, p. 5.
[106] Tetlock, P. and Gardner, D. (2019). *Superforecasting: The Art and Science of Prediction*. London: Random House Business, p. 72.

This approach offers additional benefits. As Tetlock has shown, expert accuracy tends to improve when forecasters know they will be measured and held accountable. Moreover, adopting probabilistic thinking makes it easier for the experts to update beliefs in light of new information. This should make the predictions better.

The speculative tango

The generally low accuracy of expert forecasts could also make journalists more critical about how (and how often) they report speculations about the future. The pitfalls are many, as Blom et al. emphasised.[107] Journalists will often try to incite expert sources such as scientists into making assertive predictions. This poses a dilemma for the experts because clear predictions can clash with scientific norms about being transparent about uncertainty.

In their study of the interaction between Danish journalists and experts at the start of the COVID-19 pandemic, Blom et al. describes how the "speculative tango" between journalist and expert works. At best the journalist and experts act as each other's checks and balances. But when both the journalist and experts accelerate speculation, it increases the risk of unwarranted predictions that misleads the public. This can, in turn, create distrust of both science and journalism, the authors warned. The advice to journalists in these situations is then to remember that the critical questions are not "is it true?" or "will it become true?" but rather "*How certain are you and how probable is it according to what evidence*? "

Not forecaster, but guide

There is a lot more that could be discussed here. Tetlock's focus is narrow, everything can't be quantified and measured. And, as Tetlock himself discusses, since things usually stay as they are, the probabilistic outlook may lead us to overlook less likely, but really important events.

Besides, public experts play many roles apart from as sooth-sayers, they are explainers and fact-providers and evaluators, for example. Importantly, as Nichols points out, the goal of expert advice is "not to win a coin toss, it is to help guide decisions about possible futures". And, as Tetlock himself explains, sometimes an outcome does not happen precisely *because* of experts warning that it could happen.

[107] Blom, J N, et al. (2021) in Journalism Studies. See footnote 93.

Collins and Evans asked if bad macroeconomists' predictions on things like inflation rates mean we should simply abandon them?[108] The answer is no. They still know more than anyone else about how the economy works. And even if they can't reliably predict anything at the moment, preserving the expert community of economists is important in itself because it's what can make it possible to one day make forecasts that is more accurate.

A taxonomy of experts as animals

Perhaps the main takeaway from Tetlock isn't that experts are poor predictors on average but that some are much better than others. Tetlock found systematic differences between groups of experts that are useful to be aware of. He illustrated these findings using a metaphor that the philosopher Isaiah Berlin employed to distinguish between different styles of thinking among great authors in history: "The fox knows many things but the hedgehog knows one big thing."[109] According to Tetlock, this effectively captures key differences in experts thinking style – and it also predicts expert performance quite well.

The hedgehogs dig into the details and fold everything they find into one grand theory. Think of a pundit who subscribes to John Mearsheimer-style classical realism on foreign policy, interpreting all "state behaviour" as a struggle for power, or the postcolonial theorist who views everything through the lens of imperial legacy. Hedgehogs are often the most confident, but according to Tetlock they perform slightly worse than even the dart-throwing chimpanzees – likely because they have one big idea that they always apply when making predictions about what will happen next. Incredibly, the hedgehogs did even worse than usual when asked to forecast outcomes within their own areas of specialisation. In *Superforecasters*, Tetlock points out that this is the type of expert the press prefers: "Animated by a Big Idea, hedgehogs tell clear, simple stories that grab and hold audiences." Their overconfidence also makes them attractive to media outlets who prefer fewer "doubts and caveats".

Foxes, on the other hand, know a little about a lot. They have many interests and goals, consult diverse sources of information, and are not so concerned with making everything fit together perfectly. The knowledge they possess doesn't run as deep as the hedgehogs', but they are both more self-critical and more flexible – and therefore better able to integrate multiple perspectives before reaching a

[108] Collins, H and Evans R. (2007). *Rethinking Expertise*. University of Chicago Press, p. 135.
[109] Tetlock, P. and Gardner, D. (2019). *Superforecasting: The Art and Science of Prediction*. London: Random House Business, p. 69.

conclusion. This makes them better forecasters – and possibly also better equipped to understand the complexities of the world because they are able to hold on to conflicting considerations. But, according to Tetlock, they have little success in the media. They are not confident enough, their narratives are too complex, with too many "howevers" and "on the other hands".

Should this create some doubts about those who stress the importance of experts not trespassing into other fields, or who have concluded that journalists should police such boundaries? Nichols suggests it shows why we need public intellectuals that can bridge the gap between experts and the public. From the point of view of the public sphere, the onus on flexibility for expert performance might also align well with ideas about why disciplinary diversity is important.

In one of his papers, Zvi Reich, connects to this taxonomy when discussing the expertise of journalists themselves, suggesting that they are like foxes.[110] And, we might, add: foxes that are experts in talking to hedgehogs.

This leads us to our next chapter where insights from a specific branch of sociology will add to the clues social epistemology offers for judging expertise as well as in discerning between different kinds of expertise – including what sort of expert a journalist is.

[110] Reich, Z and Lahav, H. (2021). *What on Earth do Journalists Know? A New Model of Knowledge Brokers' Expertise*. Communication Theory.

Chapter 6: The experts on expertise

Key vocabulary introduced in this chapter

- **Studies of Expertise and Experience (SEE)** Also called the "Third Wave" of science studies; Collins & Evans's programme that analyses types of expertise rather than treating "science" as a monolith.
- **Periodic table of expertise** Collins & Evans's typology that maps different kinds of expertise to clarify who knows what, and how we might tell.
- **Tacit knowledge** Know-how acquired through practice and socialisation within a community, not just from books or formal instruction.
- **Contributory expertise** The ability to do the work in a domain and make original contributions (e.g., running experiments, building models).
- **Interactional expertise** Fluency in a domain's language sufficient to talk competently with contributory experts, without being able to perform the work oneself (often the target for specialist journalists).
- **Downward discrimination** Using someone with greater relevant expertise to help adjudicate rival claims – outsourcing the meta-judgement wisely.
- **Manufactured consensus / manufactured controversy** Situations where agreement or disagreement appears robust in public venues but does not reflect the settled view of the relevant expert community.
- **Formative aspiration** Collins's idea that science – and, aspirationally, serious journalism – are normatively committed to truth-seeking, which underpins public trust.

Invest deeply in talking to the real experts.

Seek the truth, even if it means narrowing the conversation.

This is the boiled-down advice from Harry Collins, professor at Cardiff University's School of Social Sciences, and arguably one of the world's foremost experts on expertise.

Over the past decades, he and his Cardiff colleague Robert Evans have developed an influential framework for analysing expertise, which we will explore in this chapter. This approach – sometimes called the Third Wave of Science Studies or Studies of Expertise and Experience (SEE) – not only offers insights about how to judge expertise but could imply an answer to a burning question: what on earth does a journalist know? For Collins, this framework also points toward a renewed

understanding of the role of both science and journalism today. We'll discuss these three topics in turn.

Collins has long tried to raise the alarm about a "crisis of expertise".[111] In his 2014 book *Are We all Scientific Experts Now?* he cautioned against an evolving cultural climate where anyone might think they are qualified to weigh in on any matter. The result, he warned is that it is "those with the power to enforce their ideas or those with the most media appeal that will make our truths according to whatever interests they are pursuing".[112] The zeitgeist needed to change, he concluded.

That didn't happen, and when Collins sat down for an interview with me more than a decade later, the headline news of the day was that vaccine sceptic Robert F. Kennedy had been appointed U.S. Secretary of Health and Human Services. To Collins the lesson was clear: "You've got to reestablish science," he said, "otherwise you're going to lose politics, you're going to lose democracy.

"If we reestablish the value of science, we'll reestablish the value of truth, and then there will be a check and balance on the actions of a person who's essentially a dictator."

The framework he's been developing for the last 20 years has been picked up and put to use in all kinds of fields where expertise is discussed, but all along it was really all about exactly this, he explained: finding ways to support the value of truth and real expertise – and thus to again elevate science back to a special position in society.

No fairytales about science, please

It may seem ironic on the surface: the project of the academic fields he's been affiliated with for half a century (the sociology of scientific knowledge and Science and Technology Studies [STS]) can be seen as being about doing the opposite: systematically chipping away at the pedestal that once elevated science above other human activities.

Collins was part of a wave of scholars who, in the 1960s and '70s, began treating science as any other social phenomena. They visited labs and observed the scientists in action, showing empirically that science isn't value-neutral, pure, or monolithic – it is shaped through a complex interplay between scientists, technologies, and

[111] Collins, Harry. (2014) *Are We all Scientific Experts Now?* Polity, p. 1.
[112] Collins, Harry. (2014) *Are We all Scientific Experts Now?* Polity, p. 131.

society. It became clear that scientific truth was much more fluid than previously thought. Collins embedded himself for 45 years into the field of gravitational wave physics – a science as pure science as it gets – demonstrating, among other things, how even here the scientists relied upon tacit social knowledge to make their experiments work.

But as Collins sees it, it all went too far, especially as some scholars in STS became associated with postmodernism. Now, he is afraid these academic fields contributed to an environment where the value of truth has eroded – to the benefit of people like Trump, the Brexit campaigners and the looming threat of fascism: "Suddenly, after a golden age in which a couple of generations of academics and intellectuals have enjoyed the licence to pick apart the credibility of established knowledge-creating institutions, free of danger to themselves or their societies, it turns out we were hanging by a thread," he wrote in a recent paper. [113]

In the interview Collins explained that the project was kicked off with the first revolt against the MMR-vaccine in the UK in the late '90s – the episode that arguably launched the vaccine-hesitancy movement still troubling public health today. What happened next was that parents started believing researcher Andrew Wakefield's suggestion that this vaccine could cause autism. Collins said he saw scholars in his own field choosing to defend the worried parents instead of supporting mainstream science – a terrible mistake, as he sees it.

This made him think again, he explained. All the work showing the flaws and problems with science still held true. But it also became all too clear that it was necessary to find ways to reassert the value of real expertise despite this – and to explain why people should still respect mainstream science by default.

"The trick that has to be learned," he once wrote, "is to treat science as special without telling fairy stories about it." [114]

One way to do this is to shift the focus from science as a provider of truth to the kinds of expertise underpinning scientific and technological practice. The point is that even if science isn't divine, but human, fallible, and entangled with culture, we

[113] Collins, H. (2023). Science as a counter to the erosion of truth in society. *Synthese*
[114] Collins, Harry. (2014) *Are We all Scientific Experts Now?* Polity, p. 81.

should still give special weight to the judgements of those who "*know what they are talking about.*"[115]

We then need a framework that helps ensure we turn to those with genuine, substantive expertise. Instead of delving deeper into theory, we'll turn to that framework now.

The periodic table of expertise

Inspired by chemistry's periodic table, Collins and Evans creates a typology that lays out different forms of expertise in a structured way – helping us to think more clearly about who knows what, and how we might know that they know it.[116] The table is explained in the books *Rethinking Expertise* and *Are we all scientific experts now?* For journalists, it can be a valuable map.

The typology rests on the idea that having expertise isn't about being seen as an expert. Neither is it just about possessing facts or formal knowledge. It's about being

[115] Collins H. and Evans R. (2007). *Rethinking Expertise*, "Introduction". The University of Chicago Press.
[116] The table is explained most thoroughly in *Rethinking Expertise*.

immersed in a practice and having what Collins calls *tacit knowledge* – that is, the skills that are learned by doing, watching, and being part of a community – not just by reading textbooks.

Tacit knowledge is why YouTube tutorials won't make you a professional, and why genuine understanding often depends on socialization into a field. It's probably an important reason why "doing your own research" leads so many people astray.[117]

The full table is complex, starting from "ubiquitous expertise" – the everyday knowledge we all acquire just by living in society. In this section, we'll focus on specialised expertise and a few key distinctions that are especially relevant for journalism. At the heart of the table lies two categories:

- *Contributory experts* are the people who can *do* the thing. They are fully immersed in a domain and capable of making original contributions to it, for example, a climate scientist building models, or a surgeon performing complex procedures.
- *Interactional experts*, by contrast, cannot perform the work themselves but have spent enough time in the community of practice to understand and speak the language fluently. They can be bureaucrats, interdisciplinary researchers or – as Collins and Evans mentions several times in *Rethinking Expertise* – specialised journalists.

Interactional experts can hold smooth and meaningful conversations with contributory experts and ask the relevant questions. Often, they will also be able to communicate complex material to outsiders – a task that is not necessarily mastered by the contributory experts themselves. Interactional experts are thus the natural bridge between contributory experts and non-experts.

This is a formidable expertise – and the bar is set accordingly high: to qualify as an interactional expert proper you should master the language so perfectly that you can fool contributory experts into thinking you are one of them in a test comparable to the Turing test for deciding if a machine is intelligent. Collins himself did just that with gravitational wave physicists.

[117] In a large-scale experiment where researchers asked people to investigate the accuracy of false news stories themselves, it was found that this increased the likelihood that they would believe the false claims. And not only that: this activity also increased the general tendency to trust low-quality news sources. See https://www.niemanlab.org/2024/01/asking-people-to-do-the-research-on-fake-news-stories-makes-them-seem-more-believable-not-less/

A journalist will very seldom accomplish a similar feat. But this doesn't mean the idea isn't useful.

Don't be boring

Harry Collins says there is a method to acquiring this kind of interactional expertise. The most important rule is this: do not bore the expert you're talking to. Keep a lively tone.[118] You need to understand enough of the substance to make the conversation interesting.

"This was always my guideline. I would not go and do interviews. I would go and have an argument," Collins said. This could, for example, be about confronting the experts with how their view is different from other named researchers. "You've got to know enough to be able to conduct that kind of interaction."

This approach can also give clues about trustworthiness, Collins suggested, because you get a sense of how responsive they are to counterarguments: "If you're having an argument, they haven't got time to think about how to lie exactly," he said, echoing Goldman's suggestion of dialectical performance as a marker of credibility.

Meta expertise

Meta expertise is the capacity to make informed judgements about who the real experts are, even in fields we don't fully understand, and where there is no time to try and gain a level of interactional expertise.

Meta expertise is what enables a person to decide which claims should be trusted, which experts are credible, and which voices can safely be ignored. It's a skill we all exercise, often intuitively – for example, when going with one plumber over another, or discriminating between salespersons.

Collins and Evans echo many of the points made by the social epistemologists. Non-experts will have to start by looking at clues such as the internal consistency of what the experts say, how they carry themselves and credentials. In this framework, this is a way of "transmuting", as the authors call it, social judgements into technical ones.[119]

Sometimes non-experts can also lean on *local or specific knowledge*. For example, we may be informed by having seen a plumber in action or by knowing someone who

[118] This point is also made in Collins H. and Evans R. (2007) *Rethinking Expertise*, The University of Chicago Press, p. 33.
[119] Ibid., p. 21.

works with him. When approaching scientific disputes, a journalist might rely on whistleblowers concerned about the disruption of the normal scientific process. Collins suggest that this is a place journalists might play an important role: "...not trying to do half-baked technical science but, but fully cooked political investigations of science".[120]

Journalists could also be able to indirectly deploy the most reliable form of meta expertise, which Collins and Evans dub "*downward discrimination*" – that is, having someone who is *more* of an expert on the topic doing the judging. The problem, however, is that people tend to think they are more of an expert than they really are. Who decides what direction is downward?

Practical problems with meta expertise

The framework is far-reaching with many possible implications. I'll make do with mentioning a few of the practical problems with exercising meta expertise and using meta criteria that is highlighted in the literature.

Popular understanding of science can be dangerous

Reading popular books about, say, the microbiome or astrophysics, doesn't necessarily teach you anything that enables discerning the real experts from the fake ones. On the contrary, it can sometimes generate an illusion of understanding that points you in the wrong direction.

Reading primary sources is also of limited help

Seeking out journals on your own, or reading technical stuff on the web just isn't a reliable way to competently pick sides in a dispute between experts. It can go terribly wrong. Arbitrary reading of professional literature will frequently give you false ideas about both the content of the science and the level of certainty, according to Collins and Evans.

One important lesson from the sociology of science is that you will often be unable know what to read and what not to read without social contact with the expert community. For example, papers with big claims are published quite often without being seen as having any importance.

Understanding who to take seriously and who not to is an important part of the interactional expertise. Collins says he found that it is often harder than

[120] Collins, H. (2014) *Are We all Scientific Experts Now?* Polity, p. 120.

learning the technical stuff – again underscoring the need for journalist to invest time in conversing directly with the experts.

Credentials alone are unreliable

Understanding what titles and diplomas mean can be hard. Even when you do, it isn't straightforward.

"If somebody has no credentials, then you've got to start to worry," advises Collins. But having titles and diplomas is no sure sign of trustworthiness. "You need a certain amount of scientific ability to be able to lie properly or deceive people properly. So you'd expect everybody who's involved in this [deception] to have decent credentials," he said.

While credentials are a weightier signal if you're interested in understanding established knowledge, it is less so when reporting on the frontlines of science or on some debate about how to use expert knowledge on a current problem. For a journalist it's usually about "the next thing", Collins said. "And the past credentials don't bear on the next thing".

Most importantly, this framework leaves room for people *without* formal qualifications to have contributory expertise on particular matters because they hold crucial knowledge or experience. The classic example is the Welsh sheep farmers whose observations of Chernobyl fallout on their land were long dismissed by credentialed scientists. Another involves AIDS activists who realised that patients in the placebo arm of early AZT trials risked unnecessary death. By mastering randomised testing, statistics, and virology, they persuaded medical researchers to accelerate access to the drug.

Get 90% of the way there

When covering a beat over time, or when doing deep dives into a topic, journalists pick up pieces of the tacit knowledge that circulate among specialists, helping them understand who and what is relevant, what questions should be asked, and when further investigation or additional sources are necessary.

Even if journalists seldom acquire interactional expertise in strictest sense, Collins said he thinks a journalist can get "90% there with 10% of the effort".

“What they don’t get is the last 10 that I get. And the last 10 is what interests me, because I’m a sociologist. But the journalists can get most of it by investing deeply enough in talking to the scientists.”

Can a journalist be an expert?

The award-winning science journalist Angela Saini is an example of a journalist who has developed such deep scientific expertise that she has been appointed to sit on high-level advisory bodies, including the Lancet COVID-19 Commission Task Force on Global Health Diplomacy and the Royal Society’s Science Policy Expert Committee.

In her main specialties – gender research and the history of race science – she is now even invited to serve as a peer reviewer for academic papers. This, she explained in an interview, is the fruit of having covered these topics for almost 15 years, amassing knowledge and cultivating a huge network of academic contacts. She now keeps in regular touch with 50 to 60 experts that help keep her up to date on any developments in the field. For example, she will know about important papers well before they are published. “So I know everything, I know everyone,” she said. “I know who I can trust and where I go to if I need a comment.”

“It’s a weird space to be, in that it is unique to journalists,” said Saini, who recently also became an assistant professor of Science Writing at MIT. Academia, she noted, has become highly specialised. “Academics often have very detailed knowledge, very deep knowledge, about their specific topic. But journalists are the only ones who really have a broad knowledge of that entire field.” A sex-difference researcher, for instance, may be quite ignorant of the history of sex differences. This means that although journalists’ grasp of any single research area can be shallower, they often provide perspectives that specialists lack. “There is a lot of advantage in that,” Saini said, adding that she enjoys meeting academics and telling them things they didn’t know. More on this in Chapter 7: Journalists as experts.

The formative aspiration of science (and journalism)

Journalists should be wary of the idea, Collins warned, that they have a duty to – in the name of democracy and pluralism – bring in new or alternative voices on questions that require technical expertise. The job, he said, is simply to “find the truth”.

In this, he explained, journalism has a lot in common with science: even if science is a fallible cultural endeavour it’s “formative aspiration” is still to pursue truth.

This, in itself, should invite trust, he suggests. “If you want to know how the world works, bet on people who really want to tell the truth about it, rather than people who’ve got some other motive in mind,” he said.

The shared premise is a commitment to honesty: without it, researchers can neither criticise one another nor build on each other's knowledge. This "moral culture" is one of science's most important products, according to Collins, because it protects truth as the foundation of politics and social life.[121] When science (and journalism) feeds its respect for truth back into the broader society, it acts as "the moral compass" of democracy.

Mike Schäfer, a professor in science communication at Zurich University, raised a related point in an interview: many other groups and professions, including influencers, also act as intermediators between experts and citizens. What sets journalists apart is exactly the "proto-scientific" normative values they bring to the task. "That commitment to approximating the truth is what makes them important and interesting", he said. But this is also what makes journalists "targets for people who peddle in dissent, misinformation and populism". Since journalism is part of the institutional system, it becomes important to attack them.

Schäfer said that while journalists have a democratic obligation to enable debate and a deliberation in society, they are also "guardians of deliberative norms". They should give a voice to people that otherwise aren't heard and can even become advocates for them. "But it ends where deliberative norms are violated or where epistemic norms are violated," Schäfer said. "That's what distinguishes journalism from many other of these intermediaries that don't give a shit about that."

But here's the rub: when journalism excludes certain voices to uphold deliberative standards, these voices quickly flee to alternative platforms where they can build powerful counter-publics. It's a dynamic that undermines journalism's credibility and reach among parts of the population. This leaves high-quality journalism as niche content for a liberal elite. "If you squint, you can see that this is the direction we're going," Schäfer said.

Still, according to Collins, journalism is one of very few institutions, if not the only, that is similar to science in that it has truth as a foundational moral value. A serious journalists should then be a lot like a scientist, Collins said. "I want to persuade journalists, if I can, that this should be their aspiration."

[121] Collins, H. (2023). *Science as a counter to the erosion of truth in society. Synthese*

Chapter 7: Journalists as experts

Key vocabulary introduced in this chapter

- **Bipolar interactional expertise** Reich's description of journalists' dual skill: interacting expertly with both sources and audiences, and mediating between them.
- **Outsider–insider balance** The simultaneous need for journalists to keep critical distance (outsider) while still understanding a field well enough to interpret it accurately (insider).

How should we think about journalists' own expertise? That question has grown more urgent as the digital sphere fills with content from independent creators, and generative AI. To think about this, Zvi Reich turned to the framework of Collins and Evans, picking up and building on the idea that journalists possess a form of interactional expertise.

A strength of thinking about journalism as interactional expertise, Reich argued, is that it highlights that gathering knowledge by interacting with other experts is itself a form of expertise, one that hinges on selecting sources, assessing them, honing interview techniques, and so on. [122]

The term also recognises that journalists' dependence on rapid access to others' know-how is not necessarily a weakness. Reich points to studies showing that even highly informed specialists and academics largely rely on one another's statements even within their own fields. The difference is that while experts usually defer to their peers, journalists more often draw on people outside those professional circles.

Yet, journalists' expertise is often "belittled" in journalism studies, according to Reich. At best, we are seen as "temporary specialists". After all, journalism hardly qualifies as a profession: we lack a systematic theory, we lack formal training.

To deliver people relevant knowledge we need an expertise tightly linked to judging what matters, what is newsworthy, and which voices should be listened to. Selecting expert sources then becomes a crucial task. Again, the problem is the knowledge asymmetry. There will be "unbearable gaps", Reich writes, between the journalist's own knowledge and how they decide "the selection, hierarchization, juxtaposition, and integration of scientific experts in their stories".

[122] Reich, Z. (2012). *Journalism as bipolar interactional expertise*. Communication Theory.

This is a task that calls for meta expertise (see previous chapter), but it can be challenging for journalists who are often pressed for time or who lack a "basic awareness of the weaknesses of their judgement".

Reich suggests there is another way of thinking about it: journalists possess what he calls *bipolar interactional expertise*. That is, we are "specialists in interacting with both our sources and our audiences, and in managing the interplay between the two." According to Reich, this isn't a rare skill reserved for a select few beat reporters but part and parcel of everyday journalism.

We're all caught between people whose knowledge surpasses our own and an audience of lay readers. Viewing journalists as bipolar interactional experts clarifies that this role is about more than mere mediation: it is the active navigation of knowledge through a distinct set of skills.

Outsiders on the inside

In another paper, Reich, along with Hagar Lahav, wanted to explore this fundamental question: "*What on earth do journalists know?"*[123]

For this, they asked news editors in Israel about how they manage the expertise of their reporters. The findings point to how journalists are expected to hold both an inside and an outside perspective at the same time, in line with the concept of bipolar expertise.

Reporters need an *outsider's* view to keep critical distance. Yet, compared with readers – and even their own editors – they also sit *inside* the field. The insider vantage point is indispensable for grasping what a story really means, for conveying it accurately, and for asking clarifying questions. The outside view, meanwhile, is essential for preserving scepticism, judging what matters to the public, and translating it into plain language.

As one editor told Reich and Lahav, "When a professional issue hits the headlines and the beat reporter is too professional [...] he will talk in the language of his small world and will not be able to convey the story to the readers." In the worst case, the journalist stops acting as an ambassador for the audience and instead becomes a mouthpiece for the institutions they cover.

[123] Reich, Z and Lahav, H. (2021). *What on Earth do Journalists Know? A New Model of Knowledge Brokers' Expertise.* Communication Theory.

The flip side of deep knowledge

Kai Kupferschmidt echoes this concern when he notes that deep familiarity with a beat – such as his expertise in infectious diseases – brings both advantages and some drawbacks.

The advantages: long experience and accumulated knowledge make the job much easier. Sometimes he can rely on his own judgement of new claims' validity. Equally important, he not only has trusted advisers; he also enjoys the trust of his sources. "People are just way more honest with you, because they've interacted with you so many times," Kupferschmidt said. This was a huge advantage in the pandemic. Sources knew that if they picked up the phone when he called, they could speak briefly and still be confident they would be understood.

The drawbacks? "There's the danger that I don't seek out the fresh voices anymore," Kupferschmidt said. "I kind of hate that."

Speaking the experts' language also risks adopting their biases. "You can protect yourself a little bit against it, but not completely". When reporting on a subject he knows less about, he sometimes feels able to approach it with a fresher, more creative mindset.

Kupferschmidt, a child of a diplomat, recalls how officers in the German foreign service are routinely rotated so they don't "go native". Big news organisations tend to apply similar policies to foreign correspondents. Perhaps journalism in general should follow suit. "Maybe you should just be 10 years in a field and then have to go again," he suggested. "But it's really hard."

In a world where knowledge production has become hyper-specialised, even beat reporters assigned to seemingly narrow desks are actually operating in vast territories, Reich and Lahav noted. Claiming true expertise in "health" or "technology" is almost meaningless. In many ways, even beat reporters remain generalists. They are expected to cover *every* story that surfaces on their patch and, because fresh topics constantly emerge, the reporter's knowledge keeps expanding in many directions.

What does the Fox know?

Reich deploys Philip Tetlock's expert-animal typology (see Chapter 5) directly to journalism: even when a journalist interviews experts with the narrow, "hedgehog-type" focus of their disciplines, they can, over time, develop a broader, "fox-type" understanding, propelled by curiosity and an ability to connect disparate

perspectives. This helps the journalist translate specialists' language and judgements in a way that fulfils their role as a "knowledge broker".

The conclusion is that journalists do in fact possess a distinctive form of expertise, balancing the outsider's questions and concerns with the insights of specialised communities. Near enough to grasp problems from within, but not so close that they are unable to speak for the public.

Could recognising this as unique expertise give journalists greater confidence when confronted by those who dismiss their value – be they the experts themselves, government officials, or any other interested party?

Seeing journalists as bipolar interactional experts also underscore how selecting and working with expert sources isn't just about passive quoting but an exercise of professional judgement. The next question, then, is how that judgement should be applied in practice.

Lessons from a journalistic disaster

In a seminal 2006 study, Tammy Boyce zoomed in on the journalistic catastrophe of MMR-coverage in the UK.[124] She applied Collins and Evans' framework to understand what happened and then used it to recommend a new norm for journalism – one that doesn't attribute "expertise to anyone who appears to deserve respect or sounds interesting".[125]

Her starting point was looking into how journalists actually assess a source's expertise. Most previous source studies focused only on tallying the number of elite or official sources used; they didn't say anything about whether these media experts were *truly* experts – that is, whether they knew what they were talking about.

Boyce set out a more normative framework for journalism studies. Examining the coverage of the early MMR-controversy in the UK, she found that under a third of the sources used met her own definition of "expert". Many stories even presented a one-sided argument *against* the vaccine. Her study confirmed that the real experts – when they got a chance to speak – were often balanced by non-experts, such as vaccine-sceptical parents or politicians. They were treated as equal in terms of evidence. This lent legitimacy to the vaccine-worried.

[124] Boyce, Tammy. (2006) *Journalism and Expertise* Journalism Studies.
[125] Ibid.

When Boyce asked journalists *how* they picked their sources, they said experts were "simply a source", no different from anyone else. Some used whatever experts they could get hold of. They seldom evaluated the expertise itself; it was simply a matter of "checking" and "using their news sense". When asked which experts they could have interviewed, reporters that had been covering the story over time couldn't name a single researcher other than Wakefield.

This is a much-discussed episode, and there is reason to believe that coverage of vaccines has since improved dramatically in mainstream media. But the lessons Boyce draws from the episode still raise important issues that probably remain unaddressed in many areas.

First, journalism scholars should embrace a more objective understanding of expertise. Only those who "possesses specialised expertise" should be classified as expert sources in studies, according to Boyce. Second, journalists must be more "open and forthright" in how it uses experts. She believed Evans and Collins' table could be helpful in deciding who is the best to person to ask for background information or comments. Correct labelling of expertise gives journalists alternatives to judging a source by availability, previous media appearances, eloquence, or status.

This doesn't mean that journalist should only be seeking out the "real" experts. The point, Boyce emphasised, is to acknowledge that "real expertise exists and that not all knowledge is expert knowledge".

Boyce's four questions for assessing expertise

- What kind of expertise does the source possess?
- Is this expertise related to the story I am writing?
- How can I differentiate the types of expertise between sources?
- If the source has no contributory or interactional expertise am I unfairly balancing it with an expert-source?

Criticism of the Boyce approach

Boyce's approach isn't wholly uncontroversial. For example, the Finnish scholar Sampsa Saikonnen takes issue with Boyce's categorical view of expertise.[126]

[126] Saikkonen, S. (2019) *Interpreting Expertise*. Journalism.

First: just as important as assessing how much a source knows is considering what interests and goals they have. Second: it's not unproblematic to judge in advance what counts as relevant expertise, since it may turn out that others have valuable knowledge – as in the case of AIDS activists. Saikonnen worries that applying a normative understanding of expertise in journalism will too easily exclude those who do not meet the criteria for expertise laid out by Evans and Collins. Discussing health journalism, she writes that journalists should "openly attend to – and take seriously – the kinds of experiences, arguments and evidence" of other social actors.

In response, one could argue that a key strength, maybe even the main point, of this framework is precisely that it leaves the door open to actors like the AIDS activists, even if they lack formal credentials. This is, however, not in virtue of being "laypeople", but because they have acquired the relevant experience-based expertise to contribute meaningfully to technical issues.

Collins and Evans, like Boyce, advocate stricter gatekeeping: participation in specialist debates should be limited to those who "know what they're talking about".[127]

"Yes, we believe in experience-based expertise," Collins told me, "and we believe that the fruits of experience-based expertise should come into science. But that's not the same as saying anybody who's got a view on something has a right to opine on science."

Getting more specific and more real

For science journalist Kai Kupferschmidt, it has become clear that it is important both to broaden and narrow the definitions of expertise in journalism. At times it pays to get extremely precise about what kind of expertise a story requires. He mentions an example from the pandemic: many journalists were eager to interview any virologist. Kupferschmidt, however, knew that many of the most prominent virologists had a background in HIV research. Depending on the story, they then weren't necessarily the best ones to comment on every aspect of the novel coronavirus.

In other situations, journalists should expand their notion of expertise, Kupferschmidt contends. When covering the pandemic impact in Africa, for

[127] The general public should still weigh to decide their politics, lifestyles, and the risks they take. Importantly, for the next chapter is that this distinction rests on it being possible to separate the technical aspects from a debate form others.

example, speaking with ICU nurses – or others familiar with day-to-day hospital realities in Zimbabwe – may be more relevant than interviewing yet another epidemiologist or virologist. Likewise, talking directly with patients often yields perspectives no lab data can provide. Kupferschmidt knows this firsthand: he is HIV-positive while also covering HIV research.

“Something I understood when I got that diagnosis was that there is something that you know as a patient, from lived experience”, Kupferschmidt said.

For him, the journalistic goal in big stories can be to weave together both kinds of expertise. In an ideal world, he said, you would track down the ultra-specific domain experts while also finding the people whose real-world experiences truly matter.

Chapter 8: Making sense of conflict

Key vocabulary introduced in this chapter

- **Policy-relevant science** Research used to guide public decisions, typically uncertain and shaped by value judgements.
- **Value judgements** Non-deductive choices in research (e.g., evidential thresholds, risk priorities) that steer methods, interpretations, and advice.
- **Honest broker** Communicator who explains evidence and options, acknowledges uncertainty and competing values, and avoids presenting one policy as "the science."
- **Value judgement principle** (Elliott) Journalism should surface and scrutinise the key value choices embedded in research and expert advice.
- **Responsiveness model of trust** (Schipani) Trust is warranted when scientists are responsive to evidence (epistemic) and to public values (democratic).
- **Epistemic responsiveness** Willingness to update claims in light of new data, methods, or critiques.
- **Democratic responsiveness** Openness to justify how public values and trade-offs shape policy-relevant advice.

We have mined philosophy and expertise studies to build a vocabulary for the dilemmas and difficulties journalists face when they try to select sources and judge expert claims. This chapter focuses on what is arguably our most challenging task, and probably the most consequential: reporting scientific controversy and contested expert advice responsibly – in particular where science meets policy.

Why we need a new approach to trust

Vanessa Schipani is a seasoned fact checker and science journalist who earned a PhD in philosophy at University of Pennsylvania. Her project is ambitious: to show why journalism – and especially science journalism – is essential to maintain a functioning democracy in a world dependent on science and expertise.

If Harry Collins could be said to echo Walter Lippmann, Schipani is all about Dewey. The goal of her dissertation *Communicating Policy-Relevant Science in a Pluralistic Society* is to apply Dewey's ideas to the problems of the 21st century, envisioning

"how diverse groups of scientists and the members of the public might better collaborate with one another, such that democracy can be made to work". [128]

In an interview, she explained that her approach is very much shaped by her experience as a journalist. As a fact checker, she was tasked with assessing what American politicians said about science. "Sometimes the claims were pretty straightforward, like 'climate change isn't real'," she explained. "But those were the boring ones." [129]

What tickled her mind more was the stories where the answer wasn't as straightforward due to uncertainty or the complexities of science: for example, where the answer hinged on methodological disagreements about *how much* evidence you need to support certain policies or regulations. She noticed that politicians often set the bar for action at certainty, and that they were critical of scientists who offered their advice even if the science was incomplete. This helped tune her into research that examines exactly the role these sorts of choices play in science.

It became clear to Schipani that the prevailing models for science communication didn't always work. The often-heard recommendation is that journalists should double down on scientific consensus to maintain warranted trust in science.

This is partly the result of hard-learned lessons from two paradigmatic cases where journalists engaged in false balance: anthropogenic climate change and smoking. The argument is that a lot of harm would be avoided if journalists had only focused on communicating scientific agreement instead of giving voice to fake or conflicted expertise, often with ties to the tobacco industry or the oil lobby. [130] The consensus model is, as Schipani herself points out, also in line with some of the thinking in social epistemology, such as Anderson's view that non-experts should simply *suspend* their judgement when they can't identify consensus. [131]

But as Schipani sees it, "false balance is old news". "Journalists now know they need to be aware of this," she said.

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[128] Schipani, Vanessa: (2025) *Communicating Policy-relevant Science in a pluralistic society.* Dissertation at Department of Philosophy, University of Pennsylvania.
[129] Boring, because they are rare examples of settled, near-certain science; easy to refute.
[130] Schipani, V. (2024). *Journalism and Public Trust in Science*. *Synthese*.
[131] Schipani, V. (2024). *Journalism and Public Trust in Science*. *Synthese*.

Where else the consensus model fails

Awareness of false balance might have resulted in better climate journalism. The problem, however, is that the consensus model doesn't work in many other cases.

And it's not just because, as we've discussed, it can be difficult for a non-expert to work out if a consensus even exists. The big, underlying problem is that robust consensus can rarely be found where it matters most: in what Schipani calls "policy-related science".

It's when science touches politics that researchers' judgements impact peoples' everyday lives. And here, the clear pictures offered by anthropogenic climate change or tobacco harm are more exceptions than the norm.

Overemphasising adherence to perceived consensus as a criterion for who is worth listening to and giving a public voice also risks distorting the public's understanding of how science works. Not only is science seldom complete, but scientific consensus, when it exists, typically emerges "from a process of vigorous contestation" as Moore writes.[132] It is exactly *because* of such debate that consensus is a valid criterion for trust. Without it, we can't expect the agreement to be based on the strength of the arguments. That's why Goldman stresses the importance of making sure that consensus isn't the result of groupthink before applying it as a marker for trust.

Science journalist Angela Saini emphasised in an interview that certain areas of science are characterised by broad agreement, but for many others – such as health, evolutionary biology and psychology – the opposite is true. Scientists at top universities often disagree quite emphatically: "Even their relationships with each other are quite fractious," she said in an interview. "This means that you can't just go to one of these experts and expect to know everything about that area of science. What I like to do is get all those different perspectives and make that disagreement a part of my narrative," she said.

"This is how science works," Saini emphasised. "It isn't just about the production of varnished truths all the time. It is about dialogue and debate, and testing and retesting, and replication and failure of replication – and finally, you get closer to something accurate. I think it's our job, then, as journalists, to catalogue that process."[133]

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[132] Moore (2017) "The Problem of Judgement" in *Critical Elitism.* Cambridge University Press.

[133] Saini said she doesn't believe journalists should be expected to be able to adjudicate on legitimate disagreements between scientific experts. "All we can present is the evidence as we have it in

Judgement in action

In the paper *Journalism and Public Trust in Science*, Schipani discusses how the consensus model both relies upon and reinforces an image of researchers as neutral purveyors of indisputable, value-free facts whose authority derives from speaking for a consensus.[134] But these assumptions are not only problematic, according to Schipani, they also make it particularly difficult for a journalist to responsibly cover research that is *politically relevant*.

This is because what she dubs "policy-relevant science" is almost always uncertain – and with uncertainty comes disagreement.

When science is summoned to shape policy decisions, it becomes almost impossible for the scientists involved to remain "value-free" or objective in the way the consensus model demands.

Politicians often have to act before scientists can collect enough data to reach conclusions with certainty. The scientists must then make judgements about whether the evidence they do possess is enough to support their claims.

Schipani explains that these decisions can be influenced by the harms they are most worried about. Are they, for example, most worried about the consequences of banning an economically useful pesticide when it is not that toxic, or of not prohibiting its use if it in fact turns out to be toxic? This is where scientists often disagree, according to Schipani.

For her, a key logical consequence of this is that the consensus model risks implying that science used in policy contexts cannot be trusted at all since it's not derived from consensus. If this was true, she notes, it would have "grave consequences for the role of science in democracy".[135]

The journalist's dilemma

This poses an acute challenge for journalists, Schipani argues: how can they communicate this kind of science in a way that helps the public judge when it is worthy of trust – and when it is not?

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narrative. Where the journalistic choice comes in is how you portray that narrative, what direction it takes," she said, adding that journalists nevertheless must balance their sources in a way that reflect the state of the evidence on each side of the dispute.

[134] Schipani, V. (2024). *Journalism and Public Trust in Science*. *Synthese*.

[135] *Ibid.*

The many COVID-19 quarrels highlight the problem. “With all this disagreement, it may come as no surprise that the public lost trust in science during the pandemic,” she wrote in her paper.

Empirical research cited in Schipani’s paper suggests that public distrust in science grows when scientific disagreement is emphasised in science communication. If this is true, journalists face an ethical dilemma: on the one hand, *accuracy* demands transparency about uncertainty and dissent; on the other, they risk sowing confusion or mistrust. And in some cases, undermining trust in scientific advice may not only mislead – it may do real *harm*.

Consider the controversy over masking early in the pandemic: a journalist tasked with writing an article on whether broadscale masking works for curbing the spread of COVID-19 might, after reading up on the literature and talking to experts, accurately conclude that science was in disagreement. Most of the evidence suggested that it would have an effect but some research suggested it would not have an effect at all. Meagre evidence said it could even increase viral spread.

Morten Mørland’s cartoon, titled “Michael Gove Experts!”, appeared in The Times on 20 April 2020. Reprinted with permission.

Journalists were put in a tricky situation: the accuracy norm required reporting all three hypotheses, but this could conflict with the norm of not doing harm. Given the state of the evidence, journalists worried that reporting the disagreement might cause some people to not believe in masking and accordingly skip using them, increasing their chance of getting infected and passing the virus on to others.

What is 'enough' evidence?

As noted at the outset of this project, disagreements over measures like public masking or booster doses weren't merely about how to interpret data on effectiveness. They also reflected a wide range of value-laden judgements. Many of these involved trade-offs between different moral or societal priorities. For example, one's view of school closures might hinge on one's conception of freedom: is freedom for children about running wild on playgrounds, learning and laughing in school, and being part of everyday life? Or is it about being free from the risk of illness?[136]

Recent work in the philosophy of science suggests the meaning of "value judgement" even goes beyond straightforward ethical considerations like these. Philosopher of science Kevin C. Elliott explains that value judgements are embedded in all the *choices* scientists make when weighing different considerations that can't be settled by data or logic alone.[137] These include what research questions to pursue, which assumptions to make when collecting and analysing data, how to interpret murky findings, and how to frame conclusions. Entire fields can be shaped by such choices.

Not least, these judgements can be about deciding what counts as sufficient evidence to reach a conclusion. And disagreement about this can lead scientists to different verdicts based on the same data.

During the pandemic, disagreement over whether masks "worked" on a societal level often reflected such differences. Some researchers – maybe particularly among those most committed to clinical epidemiology or the movement for evidence-based medicine – would want evidence from well-done randomised controlled testing in real-world settings before concluding. Others were satisfied with lab studies showing that masks can stop viral particles.

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[136] This example is discussed by Eivind Engebretsen in Time, JK (2021) *Hvorfor krangler koronaforskerne?* (Why do the COVID scientists quarrel ?). Morgenbladet.
[137] Elliott, K. C. (2019) *Science Journalism, Value Judgments, and the Open Science Movement*. Frontiers in Communication.

Schipani highlighted yet another consideration – one that isn't about the evidence at all: the perception that wearing a mask is only a minor inconvenience. A mask mandate might then be seen as justifiable even if one agrees that the evidence of effectiveness remains incomplete.

The implication of all this, Schipani argued, is that deciding whether to trust the science – or which science to trust – requires criteria that go beyond consensus.

For her, the big role of values in pandemic debates also underscores why she thinks it is so important that journalists try to hold scientists to account.

"I do think that we should trust scientists in a lot of contexts, but I think that the trust should not be assumed. It should be earned," she said. "And I don't think that we should let scientists regulate themselves. I think we need an external, independent group. That's where the journalists come in."

The value judgement principle

In his paper, *Science Journalism, Value Judgments, and the Open Science Movement*, philosopher of science Kevin C. Elliott articulates a new mission for science journalism that is informed by recent works in philosophy of science. He begins by noting how difficult it is for journalists to offer nuanced, balanced coverage that reflects a range of viewpoints while also protecting the public from misinformation and poor-quality expert advice.[138] It's a tension that makes journalism easy to criticise. But he offers a guiding principle.

Value judgements, he argues, are "among the most important pieces of information that members of the public need to know", yet they are rarely made explicit. This lack of transparency is a serious problem — not only for major policy decisions but also for the everyday choices people make, such as whether to limit their children's screen time. Without understanding the value judgements built into scientific claims, people cannot make decisions that genuinely reflect their own priorities and moral views.

Journalists, he writes, have "unique abilities" and are "ideally positioned" to uncover and explain these value judgements so that non-experts can scrutinise them. Doing so is not only a public service; it can also help foster more open and reliable science. He calls this approach the value judgement principle, and asks whether it could serve as a new standard for science journalism.

Vanessa Schipani's solution

Vanessa Schipani has developed a framework for thinking about policy-related science in democracy – the *Responsiveness Model for Trust in Science* – that aims to be more realistic than the consensus model. For this model to work, in simple terms,

[138] *Ibid.*

someone must act as a mediator between citizens and scientific experts. And that is where well-trained journalists come in.

The model is designed to help with two problems: first, to show how trust in science can be warranted even in the face of uncertainty and disagreement; second, to strengthen the democratic and ethical legitimacy of collective decisions based on value-laden science.

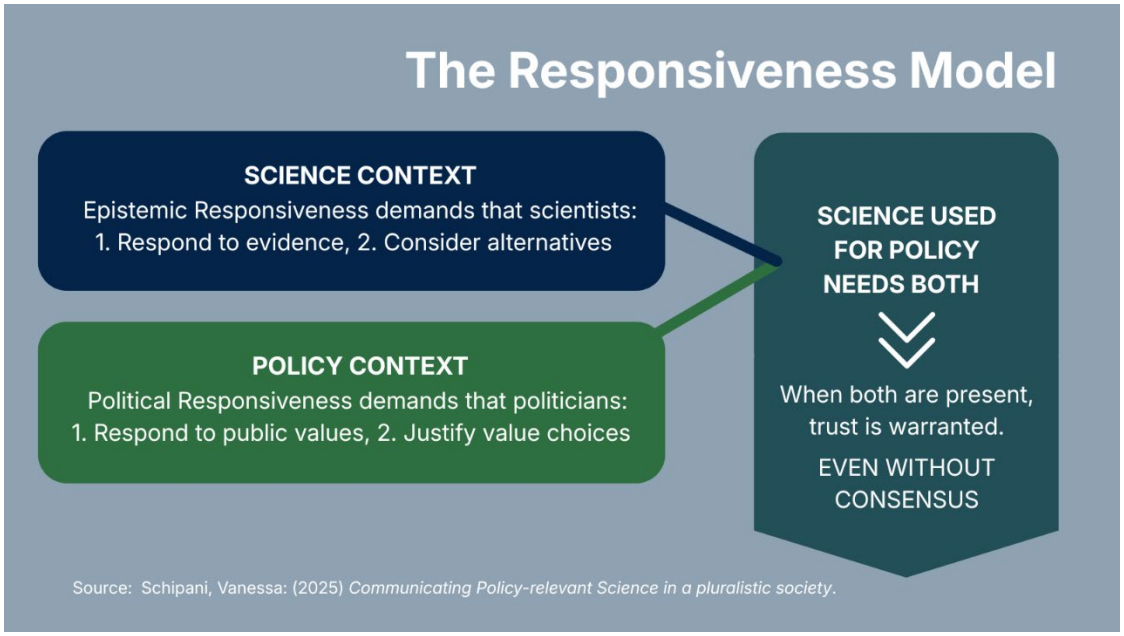
Her approach is inspired by John Dewey's emphasis on *process* rather than final answers in his vision of democracy: "Democratic decision-making is a continual process of refinement, where consensus does not necessarily need to be, and often will not be, the end goal," she wrote.[139]

In an interview, Schipani explained that we should look at how science is used in policy contexts the same way. In practice, it is often impossible to simply find and apply "the best" or most definitive knowledge. Instead, she said, it should be about saying "here's what we know right now". From there, the idea is to discuss it, gather more data, and update conclusions or policies accordingly. Then the process repeats: more data, more discussion, revised conclusions.

This reflects the fundamental idea of Schipani's model: *responsiveness* is a core feature of how both science and democracy should function.

In science, it is expected that one is responsive to new evidence and alternative explanations – what Schipani calls *epistemic responsiveness*. The participatory ideal of democracy similarly demands *political responsiveness* to public values. And when science is used in politics, scientists must be able to exhibit both to warrant trust, Schipani argues. When this is the case, the upside is that we can justifiably trust scientific advice – and importantly we can do that even when the high bar of robust consensus can't be met.

[139] Schipani, V. (2025), *Communicating Policy-relevant Science in a pluralistic society.* Dissertation, p. 7.



A graphic representation of Schipani's responsiveness model.

And here's where journalism, and science journalism in particular, can play an important role: given knowledge asymmetries, there needs to be someone who can explain the science in a way citizens can comprehend. Someone must, on their behalf, hold science accountable and provide people with a sense of whether the scientists in question are able to respond to counterarguments or alternative explanations. And someone is also needed to help people understand the value judgements scientific experts make. Only then can citizens make informed decisions about whom to trust.

This does not mean that trust must be grounded in shared values. Unlike Elliot (page 90), who argues for value alignment, Schipani emphasised that you might trust a scientist even if their value judgements don't align with your own. For example, the U.S. Centers for Disease Control and Prevention (CDC) advises against eating medium-rare burgers or eating more than a teaspoon of salt a day. If you weigh the risk-benefit calculus differently and choose to do go eat the burger and add some salt to your chips, that doesn't necessarily mean you distrust the experts at the CDC. Their recommendation can still factor into your reasoning when making everyday decisions about what to eat.

Science journalism, evolved

Journalists should aspire to fulfil the democratic role as critical mediators between citizens and the scientific experts, Schipani argues. This aligns with our traditional

claims about our role in democracy: informing the public and holding power to account.[140] But to succeed, several things need to change.

First, science journalism must help cultivate a different public mindset about what science is and what to expect from it – one that "refocuses science communication on scientific process, not product".[141] In other words: we need to get off the "consensus bandwagon", as Schipani said in our interview. Stop expecting science used for policy to be certain and value free. Don't look at scientists as vessels of fixed knowledge. Start looking at science as a *process* where claims with varying degrees of certainty are continually tested.

Crucially, promoting this view of science may help with the problem of distrust of science and scientific expertise, according to Schipani. "If we don't expect consensus then disagreement as a denialism or disinformation tactic won't work as well," she said – people would understand that disagreement is "just how it is". The mere *presence* of scientific disagreement is then not, by itself, a reason for mistrust.

Changing the story about what science is also solves the journalistic norm-conflict between accuracy and harm; it becomes easier to report disagreement correctly without fostering general distrust.

Whether this last point holds in practice, is however, an empirical question.

Schipani can point to some studies that can be seen to support her view. For example, one German study compared the effect of communicating science about controversial topics such as school closures or shooting wolves in residential areas in the style of "honest brokers" – a term coined by Roger Pielke to describe science communicators who try to separate scientific findings from political claims (in contrast to, for example, "stealth issue advocates" or "pure scientists") – with a more epistocratic or authoritative style. In this study, so-called honest brokers express their views on policy and explain the science that supports it while also acknowledging that others might have perspectives that are also reasonable. The German researchers found that this communication-style did have an effect on polarisation around trust in science by building credibility, especially among those most politically sceptical.[142]

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[140] Schipani, V. (2025), *Communicating Policy-relevant Science in a pluralistic society.* Dissertation, p. 47.
[141] Schipani, *Journalism and Public Trust in Science*. (2024). *Synthese*, volume 204
[142] Post, Senja and Bienzeisler, Nils. (2024). *The Honest Broker versus the Epistocrat: Attenuating Distrust in Science by Disentangling Science from Politics*.

Another study by Xu and Petty suggested that a responsive style of communication named "two-sided messaging" could help make even people with entrenched beliefs more open to the science communicator on issues such as masking. This way of communicating science demands that the communicators give reasons for their own point of view while also acknowledging that other views could be valid – exactly what Schipani's responsiveness model prescribes.[143]

Claiming uncertainty

One way of emphasising science as a process is by placing current problems and contested ideas in an historical context. For Angela Saini, this has been one of the main journalistic methods when writing about sex and race science. Understanding that troubling scientific approaches existed 200, 100, or even 50 years ago, makes us better equipped to spot their modern equivalents, she contends. "Things we think of as perfectly acceptable and plausible today in the sciences could well turn out not to be seen that way by future generations," Saini said.

Far from promoting distrust, she also believes historicising in this way, or making disagreement part of the story, actually *reinforces* trust in science. It's good to let the public see "how the sausage is made", Saini said. If the claim is that all vaccines are always perfectly safe, then trust starts falling apart as soon as one hears examples of rare side effects. It's then both more honest and more effective, Saini believes, to explain that vaccine injury does sometimes happen, but very rarely. One can explain the discussions leading up to the conclusion that benefits for a specific vaccine outweigh the dangers.

"It's much easier to counter misinformation that way, because it absorbs any doubt that the public might have," Saini said.

Even in climate science, where false balance has been particularly problematic, journalists should present results and predictions more cautiously, Saini believes. After all, climate models contain "a million moving parts which change over time". "You then have to be honest with people and say: 'These are the projections, these are the unknowns, these are things we do know'."

[143] Schipani, V. (2025), *Communicating Policy-relevant Science in a pluralistic society.* Dissertation, pp. 56-57

Without acknowledging uncertainty, journalists inadvertently provide ammunition for climate deniers. "You have to claim the uncertainty for yourself. You have to account for it within your reporting," Saini emphasised.

The Responsiveness Police

Vanessa Schipani's model demands a lot of scientists: to earn trust, scientists need to openly respond to not just alternative explanations but also to the different moral and societal concerns among the public. In philosophy-speak, they need to be responsive to the public both for their epistemic and non-epistemic value-choices. This doesn't mean they have to agree with the public or change their own judgements, but they do have to be able to explain and justify their position.[144]

Journalists are then tasked with being the watchdogs constantly checking if the experts are responsive in this way. As Schipani sees it, it isn't impossible for journalists to develop the special competence and skillset needed play this role. But it will require some training, including in how to navigate scientific literature. "Much like being a good scientist, being a good journalist requires being aware of what you do not know and learning how to ask the right questions to obtain that information," she writes.[145]

Even if there is, as she said, "no way" she as a journalist could get familiar with all the intricacies of immunology or engineering, she does know enough about science to see, for example, when disagreement is reasonable and when it's not. This, combined with pure journalistic skills (like being good at asking questions) gets you a long way, she explained, echoing the idea of interactional expertise:

"I got a better education in science as a journalist than I ever did getting scientific degrees," she said, "because you just get to hang out with these experts and ask them any question you want."

Crucially, it is because the science journalist will know *more* than the average citizen but *less* than the average scientist in any specific field that they can play the part of intermediators. Even if they can't "do" science themselves, journalists who report

[144] This fits, Schipani reminds us, well with Alvin Goldman's social-epistemology insight that an expert becomes more trustworthy by effectively answering and fending off challenges – what he terms "indirect argumentative justification."
[145] Schipani, V. (2025). *Communicating Policy-relevant Science in a pluralistic society.* Dissertation, p. 54.

on science learn, or should learn, how to communicate science to laypersons, which scientists are typically not trained to do," Schipani wrote.[146]

In our interview, she further explained that science journalists will "get a certain sense of when they need to call out a scientist for making a claim that isn't really justified based on the evidence – and that would be the holding them accountable".

In the early months of the COVID-19 pandemic, Angela Saini did just that. Having written about problematic race science for years, warning bells rang when she noticed top medical researchers in the UK and U.S. publicly speculating that innate genetic differences between racial groups might explain why the disease seemed to hit some people and geographic areas harder than others. To her, this hypothesis "just wasn't plausible". Viruses typically don't operate that way, and races are social categories, not biological ones. She decided to intervene with an essay in the medical journal The Lancet, calling out some of the problems with the hypothesis.[147]

Today, Saini believes those misguided speculations happened partly because of lack of information at the early stage of the pandemic, but also due to a certain bias within parts of medical research. "We are just getting to the tail-end of a period within the sciences in which there has been a lot of genetic determinism – this idea that genetics can explain everything and that we will have a gene for everything," she said. "With genetics being so prevalent in the minds of medical experts at that moment, they kept falling back on it as an explanation, even though genetics has very little to do with virus transmission."

Questions every journalist should ask

What does Schipani's framework mean for daily journalism? Schipani explains that journalists should focus much more on *how* scientists justify their claims. Find out why the experts lean towards one explanation or policy position instead of competing claims. Have the experts explain why they are ignoring alternative hypotheses, for example. Ask what evidence they would need to change their minds. Check if this sort of evidence is pursued by themselves or other scientists.

For Saini, confronting the scientists and experts and asking "where is your evidence?" is just a natural part of science journalism. Scientists have a

[146] Schipani, Vanessa: (2025) *Communicating Policy-relevant Science in a pluralistic society.* Dissertation, p. 55.
[147] Saini, Angela. (2020). *Stereotype threat.* The Lancet.

responsibility to meet evidentiary standards, and it's up to journalists to "hold them to those standards", she said.

Crucially, Schipani's vision includes journalist checking how the experts respond not just to empirical scientific evidence but also to interrogate the moral and societal value judgements scientists may have relied on. This could be having them express clearly why they, for instance, value curbing viral spread over stopping economic suffering.

Part of the job when interviewing scientists is then to confront them with different public values of this sort and then report back on how they respond – not unlike what journalists routinely do when interviewing politicians. "[The scientists] must explain why they are letting some values guide their evidentiary choices and not others that members of the public might hold," she said.

The hope is that this will make it possible for people in the audience to make an informed decision about who to trust. Schipani contends that a scientist who isn't able to respond at all can reasonably be deemed "at least partially untrustworthy until they have provided a response".

Fuelling or curbing politicisation?

A key question is whether Schipani's proposal – to abandon the assumption that science is, or ought to be, value-free when used to inform policy – might amplify one of the most worrying trends affecting research and expertise in the public sphere: politicisation.

But as Schipani sees it, it is because people have learnt to expect policy-relevant science to be "objective" (read: "near certain" and "value free") that political actors can accuse scientists of not living up to this unrealistic standard, thereby discrediting them.

"I think the reason why it feels like most (if not all) policy-relevant science today is politicised is because most policy-relevant science is uncertain and value laden. And if pointing that out is the main means to politicisation, then it's going to be easy to politicise all policy-relevant science. That's why we need to get rid of this picture of science as certain and value-free," Schipani explained in a follow-up email to the interview.

The precondition for democratic legitimacy of scientific expertise in politics, Schipani stressed, shouldn't be certainty or value freedom, but "responsiveness to

the evidence and the public's values". But for this to be at all possible, journalists must get ready to do their part: holding the experts accountable.

Conclusion

After Donald Trump's first election win, signs of a reckoning emerged in both journalism and media studies regarding earlier hopes that digital technology would foster democratic participation. "We've cheered for the citizen empowerment that would accompany the downstream migration of control away from concentrated power-holders into the hands of citizens, consumers, and audiences," wrote Dannagal G. Young in *The Nieman Lab*.

But she concluded, strikingly: "Walter Lippmann was right. There is no substitute for experts in a field, parsing information and serving as the arbiters of truth, and reifying our faith in a shared reality, a shared body of facts."

The pandemic both underscored this insight and complicated it. The accompanying "infodemic", the ensuing rise of fake and rogue experts, and the increased politicisation of expert advice served as powerful reminders of why we need to elevate those that actually know what they are talking about.

But the pandemic also showed how essential it is that journalists challenge these authorities, keeping them responsive to both evidence and public concerns. We were reminded how important it is that people can get a sense of how the knowledge that governs them is produced – and that they be included in the deliberation over how it's used in policy. In other words: Dewey was right, too.

We may be forever caught up in the Lippmann-Dewey debate – between asserting the best available knowledge and sustaining a societal conversation where diverse public concerns are heard.

This same tension echoes in the differing perspectives in the work of Harry Collins and Vanessa Schipani. For Collins (and Evans), too much public participation is a big part of the problem. Only those who truly know what they're talking about should contribute to specialised debates. The public, they argue, should weigh in only on ethical and political dimensions.

Schipani, however, stresses that such clear separations can be difficult when scientific expertise is applied to policy. The task is then not just to assess whether experts "know their stuff", but to probe how they know it – including how values affect their conclusions – and relay those answers back to the public.

Yet Collins and Schipani do have a shared insight: to judge expertise, one must understand how knowledge is made. Even if what Schipani calls "policy-relevant science" is value-laden, it could possibly be argued that refocusing journalistic coverage on the scientific process, as she suggests, could strengthen the public understanding of how science, even when flawed or incomplete, is built upon what Collins, on his part, calls "a formative aspiration for truth".

Journalists do have a responsibility not to mislead the public, not to flood the zone with even more "bullshit", and to protect audiences from deceptive expertise. The solution, however, might not be to think of ourselves mainly as epistemic gatekeepers.

We must be able to recognise real expertise and robust consensus when it exists. But we shouldn't shy away from communicating legitimate disagreement either. We should portray it accurately and wisely – often as what it truly is: an expression of uncertainty. In such cases, a diverse and inclusive conversation about how to put expertise to use in society becomes essential. Without it, we might risk public backlash and deepening distrust.

An epistemic superpower

Then there's what I've dubbed the hard problem of journalism: the so-called novice-expert problem discussed in philosophy may never be resolved. But in practice, it need not be insurmountable for journalists.

First, journalists are not like other "novices". On the contrary, we are endowed with a kind of epistemic superpower: easier access to multiple top experts with diverse perspectives. This allows us to quickly gain a sense of both the strengths and weaknesses of the evidence on a given issue, as well as the potential biases and vested interests at play. This is the journalist's single best asset when dealing with expert claims, and it should probably be prioritised over any attempts to "do your own research" or similar. But, as Reich explained in Chapter 6, it is an endeavour that we should be more systematic about.

Combined with self-awareness of our own limitations, some familiarity with scientific processes, and a more use of what Zvi Reich called "trusted advisers", journalists may make considerable headway.

Second, by focusing on process, we can bring into the story itself the factors (such as responsiveness) that inform trust. This also connects to broader worries about expertise in the public sphere and in democracy. Even in social epistemology, many

of the examples discussed seem focused on how a single individual should decide who to trust. But trust is not merely a private judgement; it emerges in communities, through ongoing dialogue and, yes, vigorous debate.

Journalism should strive to make that conversation better: more informed, more responsive – and, in effect, more truth-seeking.

Getting deliberate about deliberation

To succeed, we need to get more deliberate in selecting expert voices and more transparent about why we believe those experts are credible or should be listened to for other reasons. Just as important, we should aspire to hold both individual experts and expert communities to account: is the connection between evidence and claim clear? Are they able to respond to new evidence? Are they willing to explain and engage with hidden assumptions and normative considerations that may shape their advice?

As discussed in the first chapter, Danish research has shown our tendency to use experts primarily as pundits who rarely ground their claims in research, and in many cases act as advocates for societal causes. This blurs the line between expert analysis and political opinion, making it harder for audiences to judge their credibility and trustworthiness.

In an era where politicisation of expert advice already seems to be eroding trust, senseless quote-hunting in the expert landscape is probably unhelpful. Journalists should, in their stories, give audiences context to help weigh the selected voices: what is the person's relevant area of expertise? Which findings or data, if any, underwrite the claim? Is the speaker advancing research-based analysis or involved in a form of advocacy? Including explanations of why we think the chosen experts deserve attention in our stories can sharpen our own decision making as well as make us more answerable to our audience.

This project summarises some of the key dimensions of journalism's struggles with expertise today, and has attempted to introduce conceptual tools and frameworks for renewing the conversation about them. No foolproof recipe for judging expertise exists. There is no simple algorithm we can follow to regain trust in either expertise or in journalism itself. But this is clear: a heightened awareness of both the epistemic risks and democratic implications we face when selecting, questioning, and framing expert sources must be part of any answer to the "crisis" of expertise in the news.

Getting expertise right isn't easy. Newsroom leaders should recognise this and invest time in it and value the accumulated expertise of their journalists.

Because trust in journalism must not be misplaced.

Glossary

Bipolar interactional expertise Reich's description of journalists' dual skill: interacting expertly with both sources and audiences, and mediating between them. (p. 79)
Bullshit (Frankfurt's concept) Statements indifferent to truth, produced without regard for accuracy; journalists risk becoming bullshitters when they knowingly platform mistaken or uninformed voices. (p. 20)
Consensus model The communication strategy of reinforcing scientific consensus to maintain trust, effective in some domains (e.g. climate change, smoking) but less so for contested, policy-relevant science. (p. 86)
Contributory expertise The ability to do the work in a domain and make original contributions (e.g. running experiments, building models). (p. 75)
Contextual reporting A shift in American journalism (1960s–70s onwards) towards analysis and interpretation, moving beyond "who, what, when, where" to include explanation and critique. (p. 27)
Credible knowers Individuals recognised as trustworthy sources of knowledge; in journalism, credibility is often conferred by how reporters select and frame sources. (p. 13)
Democratic responsiveness Openness to justify how public values and trade-offs shape policy-relevant advice. (p. 92)
Dialectical superiority Goldman's term for when one expert presents arguments another cannot refute, suggesting greater credibility. (p. 45)
Dialogical irrationality Continuing to assert claims that have already been refuted, ignoring counterarguments or new evidence. (p. 51)
Downward discrimination Using someone with greater relevant expertise to adjudicate rival claims – outsourcing the meta-judgement wisely. (p. 74)
Epistemic Relating to knowledge, belief, and justification; here it refers to how knowledge is recognised, validated, and used. (p. 5)
Epistemic charlatans People who present themselves as experts despite knowing they lack the relevant competence. (p. 55)
Epistemic inferiority Reich's description of journalists' structural disadvantage compared to experts, and the need to work intelligently with this gap. (p. 58)
Epistemic justice Fairness in recognising and crediting people as credible knowers, resisting the tendency to dismiss certain groups' knowledge unfairly. (p. 21)
Epistemic nihilism The view that no sources of knowledge can be trusted; that truth is impossible to establish. (p. 6)

Epistemic overstepping Moore's warning against journalists trying to "pick winners" in expert debates without sufficient knowledge. (p. 56)
Epistemic quacks People who falsely believe themselves to be competent in a field. (p. 55)
Epistemic responsiveness Willingness to update claims in light of new data, methods, or critiques. (p. 92)
Epistemic trespassing When experts speak outside their area of competence without properly qualifying their claims. (p. 55)
Esoteric knowledge Knowledge that is specialised, technical, or accessible only to those within a particular field or community; often contrasted with common or everyday knowledge. (p. 28)
False balance When journalists give equal weight to opposing claims even when one is far better supported by evidence or expert consensus (p. 20)
Fifth branch of government Jasanoff's description of science advisers and experts whose influence in policymaking is so significant that they operate like an unofficial extra branch of government. (p. 26)
Formative aspiration Collins's idea that science – and, aspirationally, serious journalism — are normatively committed to truth-seeking, which underpins public trust. (p. 76)
Foxes and hedgehogs Berlin's metaphor, adapted by Tetlock, for two cognitive styles of experts: foxes know many small things and are flexible but less confident; hedgehogs know one big thing and apply it everywhere, offering compelling but less accurate predictions. (p. 66)
Generalist-specialist model The analogy to medicine: journalism needs both deep subject specialists and generalist reporters who can integrate and refer knowledge across fields. (p. 59)
Heuristics of expertise Practical rules of thumb (such as consensus checks, publication records, or peer evaluations) that journalists can use to assess credibility when they cannot directly evaluate technical claims. (p. 44)
Hierarchy of credibility The informal ranking journalists carry in their heads about which sources are most trustworthy – with university researchers often assumed to be at the top, and NGOs or think tanks treated as more biased. (p. 17)
Hierarchy of expertise Anderson's framework ranking knowledge claims from laypeople at the bottom to leading researchers at the top. (Not to be confused with the hierarchy of credibility.) (p. 17)
Honest broker A communicator who explains evidence and options, acknowledges uncertainty and competing values, and avoids presenting one policy as "the science." (p. 93)

Interactional expertise Fluency in a domain's language sufficient to talk competently with contributory experts, without being able to perform the work oneself (often the target for specialist journalists). (p. 73)
Knowledge deficiency A gap in journalists' subject-matter expertise that makes them vulnerable to manipulation by sources. (p. 19)
Knowledge society Giddens's term for a society where specialised expert systems are central to how we understand and manage social complexity. (p. 27)
Manufactured consensus / manufactured controversy Situations where agreement or disagreement appears robust in public venues but does not reflect the settled view of the relevant expert community. (p. 48)
Meta expertise Expertise about expertise; the ability to judge who qualifies as an expert, even without being an expert in the same field. (p. 73)
Metacognitive strategies Practices of reflecting on one's own level of understanding, identifying "unknown unknowns", and guarding against epistemic arrogance. (p. 60)
Mini-publics Small, representative groups of citizens convened to deliberate on policy issues after receiving balanced expert input; proposed as one way to counter technocratic tendencies. (p. 30)
Mutual legitimation The reinforcing dynamic in which experts gain authority by being quoted in the media, while news outlets bolster their own authority by quoting those experts. (p. 15)
Normative core of journalism The foundational democratic role of journalism: holding power to account and giving the public a voice. (p. 33)
Novice/2-expert problem Goldman's description of the situation in which a layperson must choose whom to trust when rival experts disagree. (p. 44)
Outsider–insider balance The simultaneous need for journalists to keep critical distance (outsider) while still understanding a field well enough to interpret it accurately (insider). (p. 79)
Periodic table of expertise Collins & Evans's typology that maps different kinds of expertise to clarify who knows what, and how we might tell. (p. 71)
Politicisation of expertise The process by which expert voices become entangled with political advocacy, shifting from presenting research findings to promoting specific agendas. (p. 14)
Policy-relevant science Research used to guide public decisions, typically uncertain and shaped by value judgements. (p. 85)
Post-factual society The idea that in contemporary politics and media, emotions, beliefs, and identities increasingly outweigh facts in shaping public opinion. (p. 22)

Probabilistic forecasting A method of making predictions in terms of probabilities (percentages) rather than vague terms like "likely" or "possible," which allows accuracy to be measured and improved. (p. 65)
Public intellectuals Experts or commentators who cross disciplinary boundaries to interpret and connect knowledge for a wider audience, bridging between specialised experts and the public. (p. 67)
Responsiveness model of trust (Schipani) Trust is warranted when scientists are responsive to evidence (epistemic) and to public values (democratic). (p. 92)
Science-related populism A political stance that pits "ordinary people" against "scientific elites," often questioning the legitimacy of expert knowledge. (p. 19)
Shadow board Reich's proposal that journalists systematically cultivate a panel of trusted experts across domains to serve as ongoing advisers. (p. 61)
Social epistemology A branch of philosophy that studies how we gain knowledge through other people and institutions, and how trust in others shapes what we know. (p. 43)
Speculative tango Blom et al.'s description of the push-pull between journalists and experts, where speculation can serve as mutual checking but can also spiral into overconfident predictions that mislead the public. (p. 65)
Studies of Expertise and Experience (SEE) Also called the "Third Wave" of science studies; Collins & Evans's programme that analyses types of expertise rather than treating "science" as a monolith. (p. 68)
Superforecasting Tetlock's term for the small group of forecasters who consistently outperform others by using probabilistic thinking, flexibility, and careful updating of beliefs. (p. 63)
Tacit knowledge Know-how acquired through practice and socialisation within a community, not just from books or formal instruction. (p. 72)
The fact of expertise Holst, Molander, and Christensen's phrase for the reality that modern governance is saturated with expert input – experts are now an inescapable feature of political life. (p. 27)
The Great Endarkenment Milgram's term for an era of hyper-specialisation, where even experts struggle to understand each other and cross-disciplinary decisions become nearly impossible. (p. 58)
Two-sided messaging Presenting one's view with reasons while engaging the strongest counter-arguments to build trust and reduce polarisation. (p. 94)
Value judgements Non-deductive choices in research (e.g. evidential thresholds, risk priorities) that steer methods, interpretations, and advice. (p. 89)
Value judgement principle (Elliott) Journalism should surface and scrutinise the key value choices embedded in research and expert advice. (p. 89)

Acknowledgements

My fellowship at the Reuters Institute was sponsored by the Norwegian foundation Fritt Ord. It would not have happened without my wife Silje encouraging me to finally apply, or without my son Olav agreeing to step with us into an adventure – through the wardrobe.

My editors at Morgenbladet, too, made this fellowship possible by allowing me to take time off work.

I'm grateful for all the conversations with my co-fellows from around the world. Thanks also to the always generous Tore and Norunn Rem for showing me sides of Oxford I would never have experienced otherwise, and for introducing me to some of the remarkable creatures dwelling here.

A particular thanks to professor Cathrine Holst at the University of Oslo for a chat that proved crucial in hatching the idea for this project. Finally, I'm grateful to the Institute and especially Caithlin Mercer, for all the support along the way – and for their patience when illness delayed its completion.