# Follow the (Meta-) Experts: Helping Parliamentarians to Understand Complex Research\*

## **Luke Buckmaster and Matthew Thomas**

Australian Parliamentary Library, Parliament of Australia

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Abstract: Parliamentarians are increasingly required to respond to complex matters in areas where they have limited or no technical understanding. As such, parliaments are becoming more and more reliant on the advice of experts and the institution of expertise. This comes at a time when expertise is increasingly subjected to public questioning and criticism. Experts frequently disagree and sometimes make mistakes. These issues were highlighted during the 'perfect epistemic storm' of the COVID-19 pandemic but are also central to parliamentary consideration of countless other complex issues, including climate change, energy, artificial intelligence, military technologies, global finance and the prevention of future public health crises. Given the daunting gap between expert and non-expert understandings of technical issues, the question is, how can parliamentarians decide who are the relevant experts and which experts they should be listening to? This article outlines some conceptual strategies parliamentarians and parliamentary advisers can use to identify relevant experts and engage with their claims. In particular, the article highlights the role of 'meta-expertise' used by parliamentary research services and similar intermediary institutions in helping parliamentarians understand complex research.

### INTRODUCTION

Parliamentarians are increasingly required to respond to complex matters in areas where they have limited or no technical understanding.<sup>1</sup> As such, they are becoming ever more reliant on the advice of experts.

Recent years have seen a growing number of studies in the field of expert advice and policy advisory systems for governments. These have included discussion of the impact of technological change, shifting conceptions of expertise, public sector capacity and questions of

<sup>&</sup>lt;sup>1</sup> Similarly, political staff and parliamentary officers typically do not have expertise in technical matters. While we primarily refer to parliamentarians in this paper, this should be understood to include their staff.

technocracy, democratic control and participation.<sup>2</sup> However, there has been far less consideration of the challenges of complex policy matters and the role of expert advice for parliaments.

Parliamentarians are not only expected to develop, evaluate, and vote on legislation covering a wide range of issues but also to hold governments to account and represent constituents.<sup>3</sup> The performance of these roles requires timely access to authoritative and reliable information.<sup>4</sup> And, unlike members of the executive branch, other parliamentarians do not have the public service and other expert government bodies at their disposal.

In addition to generally not being experts on the full range of matters upon which they are called on to deliberate or investigate and having to assess a large volume of legislation, parliamentarians are time poor and operate in a highly political environment, balancing competing demands from a variety of actors seeking their support—including constituents, interest groups, colleagues and parties.

The challenge of needing to understand highly technical matters comes at a time when expertise has never been more heavily subject to public questioning and criticism. This is partly due to an increasingly educated public with independent access to vast amounts of information feeling more and more capable of challenging expertise. It is also a result of the public becoming more aware that experts frequently disagree and sometimes make mistakes. The situation is further exacerbated by the proliferation of misinformation and disinformation and what is sometimes called a 'crisis of expertise', 'the death of expertise' or a 'war on expertise'. These issues were highlighted during 'the perfect epistemic storm' of the COVID-19 pandemic but are also central to parliamentary consideration of many other complex policy problems

<sup>&</sup>lt;sup>2</sup> Jonathan Craft, Brian Head and Michael Howlett, 'Expertise, policy advice, and policy advisory systems in an open, participatory, and populist era: New challenges to research and practice', *Australian Journal of Public Administration* 82(2) 2024, pp. 143-55; Brian Head, 'Reconsidering expertise for public policymaking: the challenges of contestability', *Australian Journal of Public Administration* 82(2) 2024, pp. 156-72.

<sup>&</sup>lt;sup>3</sup> Mathieu Ouimet, Morgaine Beaumier, Adrien Cloutier, Alexandre Cote, Eric Montigny, Francois Gelineau, Steve Jacob and Stephane Ratte, 'Use of research evidence in legislatures: a systematic review', *Evidence & Policy*, 20(2) 2024, p. 227.

<sup>&</sup>lt;sup>4</sup> Inter-Parliamentary Union (IPU) and International Federation of Library Associations and Institutions (IFLA), *Guidelines for Parliamentary Research Services*, IPU and IFLA, 2015, p. 6. Accessed at: https://www.ipu.org/resources/publications/reference/2016-07/guidelines-parliamentary-research-services.

<sup>&</sup>lt;sup>5</sup> Brian Head, 'Reconsidering expertise for public policymaking', p. 157; Roger Koppl, *Expert Failure*. Cambridge UK: Cambridge University Press, 2018; Thomas Nichols, *The death of expertise: the campaign against established knowledge and why it matters*. New York, NY: Oxford University Press, 2017; Gil Eyal, *The Crisis of Expertise*. Cambridge, UK: Polity Press, 2019.

such as climate change, energy transition, artificial intelligence, military technologies, global finance and the prevention of future public health crises.<sup>6</sup>

Given the daunting epistemic gap between experts and non-experts—that is, the inability of non-experts to understand or fully understand specialist technical expertise—how can parliamentarians decide who the relevant experts are and which experts they should be listening to? While policy makers and parliamentarians are often implored to 'just follow the science' or 'just follow the experts', it is rarely that simple.

In this article, we present a brief summary of a classification of expertise that can provide some guidance, and highlight the important role played by 'meta-expertise' in helping to address the problem and meet the needs of parliamentarians.

## WHAT IS EXPERTISE?

At its most basic level, expertise is the ability to understand and do things that most other people cannot do.<sup>7</sup> A wide range of sub-definitions are based on expertise in specific domains (such as STEM, music, sport, aviation, the military and weather forecasting) and there is variation in the degree of emphasis on performance or knowledge.<sup>8</sup>

Performance-based definitions emphasise reliably superior performance on given tasks; these relate mostly to skills-based activities such as musicianship and are not easily applied to cognitive work in complex domains where it is not possible to easily measure or simulate performance or reduce it to simple tasks. This describes the context of expertise in policy areas where the environment is highly uncertain, the problem or goals are ill-defined, where there are high stakes, and there are no right or wrong answers (in short, wicked problems). Other

<sup>&</sup>lt;sup>6</sup> These are sometimes called 'wicked problems', which cannot be 'definitively described, have 'no 'solutions' in the sense of definitive and objective answers' (Horst Rittel and Melvin Webber, 'Dilemmas in a general theory of planning', *Policy Sciences* 4, 1973, p. 155), and for which 'facts are uncertain, values in dispute, stakes high and decisions urgent' (Maru Mormina, 'Knowledge, expertise and science advice during COVID-19: in search of epistemic justice for the 'wicked' problems of post-normal times', *Social Epistemology* 36(6) 2022, p. 672).

<sup>&</sup>lt;sup>7</sup> Alvin Goldman, 'Expertise', *Topoi* 37 2018, p. 3.

<sup>&</sup>lt;sup>8</sup> Paul Ward, Jan Schraagen, Julie Gore and Emilie Roth (eds), *The Oxford handbook of expertise*. Oxford: Oxford University Press, 2020.

<sup>&</sup>lt;sup>9</sup> Ward, Schraagen, Gorre and Roth, *The Oxford handbook of expertise*, p. 12.

definitions stress the possession of knowledge and/or skills that enable more effective behaviours than novices', such as developing new, superior knowledge. 10

Expertise can also be understood as either relational or realist. Relational accounts view expertise as largely a social construct. Here, expertise is a reputational matter, with an expert simply being somebody who is socially recognised and accredited as such. For instance, Koppl describes an expert as 'anyone paid for their opinion ... 'expert' is a contractual role rather than a subset of persons'.<sup>11</sup>

By contrast, a realist approach treats expertise as an objective and tangible phenomenon. While expertise is gained through a social process (people are socialised in a particular domain of study) and is comparative, it is nevertheless something that individuals possess independently of whether other people think they do. A person may not advertise themselves as an expert but so long as they have the requisite knowledge or skills, they are to all intents and purposes an expert. Expertise is also objective in that it enables people to understand and do things that they could not do before and that people without expertise in the relevant domain cannot do.

We argue after sociologists Harry Collins and Robert Evans (among others) that it is necessary to treat expertise as something that is both socially constructed and also demonstrably real.<sup>13</sup> This is essential if we are to be able to decide who knows what they are talking about and should participate in decision making on technical issues, and thereby deal with what has been described as 'the political problem of expertise'.

The political problem of expertise involves a tension between expertise as a form of authority that stands in contrast to liberal democratic values and the ideal that people should participate in debates over issues that have impact on their lives. The political problem is often represented in its most extreme form as the choice between technocracy, in which powerful expert bodies impose scientistic modes of thinking on public issues, and technological populism, in which the boundary between the knowledge of the expert and non-expert is dissolved: the radical democratisation of expertise.

<sup>&</sup>lt;sup>10</sup> Michel Croce, 'On what it takes to be an expert', *The Philosophical Quarterly* 69 (274) 2019.

<sup>&</sup>lt;sup>11</sup> Roger Koppl, *Expert Failure*. There is a large body of work in the social studies of science that subscribes to this relational, or constructivist, view of expertise.

<sup>12</sup> Goldman, 'Expertise', p. 4.

<sup>&</sup>lt;sup>13</sup> Matthew Thomas and Luke Buckmaster, *Expertise and public policy: a conceptual guide*, Parliamentary Library, Canberra, 2013. See also Goldman, 'Expertise', p. 4.

Non-experts are free to engage in debates over matters of public policy that concern them. Indeed, it is important that they do so, given that these matters are not solely technical, but also involve values and interests. Moreover, if policy is to prove effective it needs to account for the lived experience of non-experts, as, to put it colloquially, 'only the wearer knows where the shoe pinches'. However, where it comes to the technical aspects, they are typically not able to understand what is being said and who is saying it. In the absence of the ability to evaluate expert knowledge non-experts are reliant on experts and obliged to choose whom to believe. This may be described as the epistemic problem of expertise.

## WHO ARE THE RELEVANT EXPERTS?

All this indicates the need for a guide to help legislators easily identify and assess expertise:

The roles of policy officials and ministers are made more difficult because to benefit from expertise, someone has to be the arbiter of who the expert is ... in the absence of a recognised method for scrutinising expertise the process is far more subjective and can involve the judgements of third parties (who are no more or less expert that the policy professionals or ministers).<sup>15</sup>

The most prominent attempt to create a classification of expertise that can help to deal with the political problem of expertise and the epistemic gap is that of Collins and Evans.<sup>16</sup>

The classification ranks expertise from lower to higher levels and distinguishes between two main types of expertise, namely, specialist expertise and meta-expertise. As their names imply, specialist expertise relates to technical expertise in specific domains while meta-expertise refers to forms of expertise that are used to judge other expertise.<sup>17</sup>

Specialist technical expertise ranges from what Collins and Evans describe as beer-mat knowledge (the sort of knowledge that would allow someone to answer a trivia question on a

<sup>&</sup>lt;sup>14</sup> On the importance of accounting for lived experience see David Rose, Caroline Kenny, Abbi Hobbs and Chris Tyler, 'Improving the use of evidence in legislatures: the case of the UK Parliament', *Evidence and Policy* 16(4) 2020, pp. 619-638; Alex Hickman 'Facilitating evidence by vulnerable witnesses to parliamentary committees – recent Western Australian experiences', *Australasian Parliamentary Review* 39(1), pp. 20-35; Hannah Johnson, 'Who is in the room? Representing diversity in parliamentary committee evidence in the UK', *European Journal of Politics and Gender* 6(3) 2023, pp. 452-455.

<sup>&</sup>lt;sup>15</sup> Gareth Conway and Julie Gore, 'Framing and translating expertise for government' in Ward et al, *The Oxford handbook of expertise*, p. 1143.

<sup>&</sup>lt;sup>16</sup> Harry Collins and Robert Evans, *Rethinking expertise*. Chicago: University of Chicago Press, 2007.

<sup>&</sup>lt;sup>17</sup> Collins and Evans, Rethinking expertise, p. 69.

technical subject) up to contributory expertise (the ability to contribute to a domain of expertise like immunology or computational physics).

At lower levels, specialist expertise involves the learning of facts or fact-like relationships from books or published papers, independent of research conducted in a domain.<sup>18</sup> This is propositional knowledge—knowledge 'that'—rather than procedural knowledge—knowledge 'how'. As such, at lower levels, specialist expertise might better be described as levels of knowledge or information. It is limited and does not enable its holders to understand or contribute to the technical part of debates. For this, either contributory expertise or interactional expertise—mastery of the language of a specialist domain but not practical competence—is required.<sup>19</sup>

Collins and Evans' classification has been criticised by some science researchers. This has been on two main grounds: firstly, that the classification does not sufficiently account for the exercise of power in determining who gets to be recognised as an expert, and, secondly, that it does not adequately deal with the messy and political nature of policy making, and the fact that politics inevitably intervenes in the process of developing technical knowledge. We argue that while it is indeed important to be aware of these issues, and to acknowledge that expertise is never entirely politically neutral, it is nevertheless essential to attempt to draw boundaries if we are to deal with the political problem of expertise.<sup>20</sup>

Using Collins and Evans' classification it is possible to draw a general boundary between lower and higher-level expertise, and to grasp just how few people can understand or participate in decision making on technical issues. In such a situation we have argued that meta-expertise comes into its own as a form of expertise that can enable its practitioners to make more-orless reasoned judgements about the credibility and relevance of experts as well as assessing the reliability of evidence.<sup>21</sup> Using criteria such as credentials, track record and experience,

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<sup>&</sup>lt;sup>18</sup> Collins and Evans, Rethinking expertise, pp. 18-23.

<sup>&</sup>lt;sup>19</sup> Collins and Evans, Rethinking expertise, pp. 24-35.

<sup>&</sup>lt;sup>20</sup> See Sheila Jasanoff, 'Breaking the waves in science studies: comment on H. M. Collins and Robert Evans, 'The third wave of science studies', *Social Studies of Science* 33(3), 2003.

<sup>&</sup>lt;sup>21</sup> Thomas and Buckmaster, *Expertise and public policy: a conceptual guide*, pp. 15–16. In this paper we identified and developed a form of expertise—social expertise—that can be used by non-experts to make judgements about which experts to believe when they are not in a position to judge what to believe. Such judgements may be made using criteria such as who has the numbers on their side; are there any relevant interests or biases; and what are the experts' track records. While social expertise is a valuable resource it is of limited use in the context of wicked problems, such as the COVID-19 pandemic, where expert consensus is often absent, there is conflicting testimony from genuine experts, facts take some time to develop, and there is more competition for the role of expert. These factors make it difficult if not impossible to make judgements using the criteria outlined. Thomas and Buckmaster, *Expertise and public policy: a conceptual guide*, pp. 21–38.

meta experts can determine whether people qualify as expert in a given area, and judge between experts.<sup>22</sup>

### **DESCRIBING META-EXPERTISE**

While the term meta-expertise has come into wider scholarly usage only relatively recently, similar concepts have been used in earlier discussions about the role of experts in the social distribution of knowledge. For example, social philosopher Alfred Schutz saw the 'reasonably founded opinions' of the 'well-informed citizen' as having an important social role in bridging the gap between expert knowledge and that of the person on the street.<sup>23</sup> Sociologists Berger and Luckmann also highlighted the need for meta-expertise ('experts on experts') in a society increasingly characterised by the gap in understanding between experts and non-experts:

The social distribution of knowledge of certain elements of everyday reality can become highly complex and even confusing to the outsider. I not only do not possess the knowledge supposedly required to cure me of a physical ailment, I may even lack the knowledge of which one of a bewildering variety of medical specialists claims jurisdiction over what ails me. In such cases, I require not only the advice of experts, but the prior advice of experts on experts. The social distribution of knowledge thus begins with the simple fact that I do not know everything known to my fellowmen, and vice versa, and culminates in exceedingly complex and esoteric systems of expertise. Knowledge of how the socially available stock of knowledge is distributed, at least in outline, is an important element of that same stock of knowledge.<sup>24</sup>

Drawing on philosopher, Michel Croce, the 'better understanding' possessed by a meta-expert refers to having a 'broader, deeper and more significant grip on the relationship between true bodies of information constituting [a subject area] than most people do'.<sup>25</sup> However, they are

<sup>&</sup>lt;sup>22</sup> Collins and Evans argue that experience is the most useful criteria in setting a boundary between the knowledge of non-experts and experts: 'without experience within a technical domain, or experience at judging the products of a technical domain, there is no specialist expertise'. And, without specialist expertise, 'the minimal standards for making judgements in [technical] areas have not been met'. Collins and Evans, *Rethinking expertise*, p. 68.

<sup>&</sup>lt;sup>23</sup> Alfred Schutz, 'The Well-informed Citizen: an essay on the social distribution of knowledge', *Social Research* 13(4) 1946, pp. 463-78.

<sup>&</sup>lt;sup>24</sup> Peter Berger and Thomas Luckmann, *The Social Construction of Reality*, Harmondsworth: Penguin, 1972, pp. 60-61.

<sup>&</sup>lt;sup>25</sup> Croce, 'On what it takes to be an expert', p. 19. See also Catherine Elgin, 'Understanding and the Facts', *Philosophical Studies* 132(1) 2007, pp. 33-42.

not expected to understand specific aspects of a subject area in the same depth as a higherlevel expert. This point was well captured by a former head of the Australian Parliamentary Library, who explained that 'It is more useful to us to have specialists who can cover an acre or two at a depth of 100 feet rather than a square foot to a depth of 5,000 feet'. 26 Or, in the words of a UK Member of Parliament:

> Academic research feeds in a very limited capacity because it's probably too specialised. What [I] need to know, in practical terms, is 80% of the high-level subject and I don't need to know, or haven't got the time to know, the other 20%. 27

We define meta-expertise as having two main attributes: (i) advanced understanding (mastery) of a particular subject area and (ii) the ability to assist others in their understanding of that subject area. These should be seen as 'ideal types'; attributes a meta-expert should be aiming for. A given meta-expert may be stronger in one of these attributes than the other (e.g. they may know a lot about a subject area but not be as proficient in communicating with nonexperts) but both aspects are necessary to the provision of meta-expertise. Further, we suggest that meta-expertise should not be seen as necessarily limited to a particular 'class' of metaexperts but rather a role that could also be performed by 'higher level' (contributory, interactional) experts who possess the attributes of subject area mastery and ability to improve non-expert understanding.

# Mastery of a Subject Area

This aspect of meta-expertise can be understood as the capacity to make reasoned judgements about the credibility and relevance of experts in a particular subject area.<sup>28</sup> Meta-experts have an informed understanding of a subject area developed through experience.

The aim here is more than merely the possession of a larger number of facts (true beliefs) in a subject area. Rather, meta-expertise should be measured in terms of a person's understanding of such questions as:

what are the background assumptions of a subject area?

<sup>&</sup>lt;sup>26</sup> Allan Fleming, cited in Dorothy Bennett, 'A History of the Parliamentary Research Service' in *The PRS 25 Years* On: The Executive and the Legislature, the Interplay in Australia's Westminster System. Papers to Mark the 25th Anniversary of the Parliamentary Research Service, Department of the Parliamentary Library, Canberra, Australian Government Publishing Service, 1995, p. 13.

<sup>&</sup>lt;sup>27</sup> David Christian Rose, Caroline Kenny, Abbi Hobbs, and Chris Tyler, 'Improving the use of evidence in legislatures: the case of the UK Parliament', Evidence & Policy 16(4) 2020, p. 632.

<sup>&</sup>lt;sup>28</sup> Collins and Evans, Rethinking expertise, p. 69.

- what are the key questions arising within it?
- what are the key methodologies used within it?
- what are the areas of contention/consensus?
- who are the most relevant and credible experts/sources on the subject?
- where do various experts and their views 'fit in' to the field?

# Improving the understanding of non-experts

Our understanding of meta-expertise extends the concept beyond the usual association of it only with subject area mastery, to include capacities necessary to help non-experts improve their understanding. Meta-experts have an intermediary function, the point of which is not simply to develop advanced understanding of a subject but to pass that understanding onto others. Croce describes a non-exhaustive set of 'novice-oriented abilities'; dispositions or virtues that might enable a person to help others improve their understanding of a subject area.<sup>29</sup> These include 'sensitivity to the novice's needs, intellectual generosity, intellectual empathy, sensitivity to the novice's epistemic resources, and maieutic ability'.<sup>30</sup>

Examples of such abilities in practice include asking empathetic, well-pitched questions to determine precisely what help a non-expert might need (e.g. what do you already know about the subject area? What are you hoping to do with the information?). It would also include the ability to tailor responses to the specific needs of an individual or audience. For example, translating complex material into plain language; understanding how much detail is required and how much can be left out.

## **META-EXPERTISE AND PARLIAMENTS**

Unless they happen to be specialists in a particular area that is the subject of parliamentary attention, parliamentarians are just as likely to be limited in their understanding of complex technical matters as any other non-expert. As a UK Member of Parliament has put it:

<sup>&</sup>lt;sup>29</sup> Croce, 'On what it takes to be an expert', p. 13.

<sup>&</sup>lt;sup>30</sup> Croce, 'On what it takes to be an expert', p. 13. Philosopher, Jean Goodwin, worries that 'from the citizens' point of view, the friendly meta-expert is yet another apparent egghead demanding their regard'. Jean Goodwin, 'Accounting for the appeal to the authority of experts', *Argumentation* 25(3) 2011, p. 290. 'Novice-oriented abilities' are essentially about avoiding the 'apparent egghead' trap.

By definition, most politicians are not experts on most subjects; on the one hand, we have to be generalists, on the other you are expected to be expert, and there is a massive tension between those two that you would hope academic research could arbitrate. $^{31}$ 

Meta-expertise therefore has a crucial role to play in helping parliamentarians to understand and make decisions about complex technical matters.

The main way in which parliaments have attempted to deal with the epistemic gap is through the establishment of intermediary bodies in which the exercise of meta-expertise takes place. Institutional meta-expertise can be found in various forms in parliaments, including parliamentary information and research services (including parliamentary libraries), parliamentary technology assessment bodies and parliamentary committees. A recent project sponsored by the UK Parliamentary Office of Science and Technology (POST), found that most parliaments have an established service for accessing and connecting with research, and identified 73 across the world as providing analysis or synthesis of research and/or direct links to academic scholarship.<sup>32</sup>

# Parliamentary research services

Parliamentary research services (PRS) play a key role in helping parliamentarians to perform their legislative, deliberative, scrutiny and representational duties. They emerged as a complement to parliamentary libraries, to meet the growing demand for objective, and authoritative research and analysis. In many cases they operate separately from parliamentary libraries and can be divided into three broad models: internal, external or mixed.<sup>33</sup> An early example of PRS is the US Congressional Research Service, which was established (under the name, Legislative Reference Service) in 1914 to assist with the information needs of Congress, and in 1970 was given a greater role in research and analysis.<sup>34</sup>

The Inter-Parliamentary Union and International Federation of Library Associations and Institutions research services guidelines provide a good explanation of the role of PRS:

<sup>&</sup>lt;sup>31</sup> Rose et al, 'Improving the use of evidence in legislatures: the case of the UK Parliament', p. 632.

<sup>&</sup>lt;sup>32</sup> Vicky Ward and Mark Monaghan, 'Mapping and connecting Parliamentary Research Services around the world', Commonwealth Parliamentary Association blog, [2024]. Accessed at: https://www.cpahq.org/knowledge-centre/blogs/parliamentary-research/.

<sup>&</sup>lt;sup>33</sup> D Jágr, 'Parliamentary research services as expert resource of lawmakers. The Czech way', *The Journal of Legislative Studies* 28(1) 2022, p. 97.

<sup>&</sup>lt;sup>34</sup> Congressional Research Service (CRS), *The Congressional Research Service and the American Legislative Process*, CRS Report, 12 April 2011, p. 1.

... as they prepare themselves for their parliamentary activities, parliamentarians have the daunting task of having to secure access to authoritative and concise material that presents synthesis and analysis of the relevant facts necessary for them to intervene effectively (often on short notice) on public policy issues addressed by a parliament ... A parliamentary research service can assist by preparing synthesis and analysis of proposed legislation, policies or programmes considered by a parliament. Activities can include the preparation of factual assessments, the provision of second opinions on information provided by the government or even assessments of whether the government has implemented the actions it committed to take.

The role of the research service will be to provide analysis covering the spectrum of perspectives through products and services that do not attempt to lobby, are non-partisan and are offered to governing and opposition parties alike. Analytical work will focus on synthesizing facts and presenting information in a balanced manner both in political terms and in the approaches adopted to conduct analysis.<sup>35</sup>

For PRS, effective performance of this function requires meta-expertise. There must be subject specialists available who possess the necessary attributes for helping parliamentarians to better understand legislative and public policy matters. For example, specialist staff in the Australian Parliamentary Library's research service provide written and verbal briefings to members of parliament, their staff and parliamentary committees, research publications on current issues and legislative analysis. Parliamentary researchers need to know what they are talking about (subject area mastery) and be capable of presenting it in a way that meets the specific requirements of their parliamentary audience (timely, impartial, clear, concise).<sup>36</sup>

# Parliamentary technology assessment

In response to increased awareness from the 1960s and 1970s about the specific challenges and uncertainties posed by scientific and technical change, many countries have established dedicated parliamentary technology assessment (PTA) bodies tasked with providing impartial

<sup>&</sup>lt;sup>35</sup> IPU and IFLA, Guidelines for Parliamentary Research Services, p. 6.

<sup>&</sup>lt;sup>36</sup> These requirements may be captured in legislation and/or governance arrangements. For example, under the Australian *Parliamentary Service Act 1999* (s38B), the functions of the Parliamentary Librarian (the statutory officer responsible for information and research services in the Australian Parliament), are to 'provide high quality information, analysis and advice' to the Parliament 'in a timely, impartial and confidential manner', 'maintaining the highest standards of scholarship and integrity', 'on the basis of equal access' and 'having regard to the independence of Parliament from the Executive Government of the Commonwealth'.

advice to assist with decision-making. As Csaki (et al) explain, '[PTA] may focus on diverse themes such as energy, health and ageing. PTA may involve experts, stakeholders and possibly citizens, but with the primary purpose of informing decision-makers within the parliament.'<sup>37</sup> Following the establishment of the Office of Technology Assessment at the US Congress in 1972, PTA bodies have taken a variety of forms across different parliaments, including within parliamentary committees, as independent offices or units within the parliament or as independent institutions (operating separately but with parliament as their main client).<sup>38</sup>

The Office of Technology Assessment at the German Bundestag (TAB) is an example of the latter. It is operated by a body within the Karlsruhe Institute for Technology and governed by a parliamentary steering committee. According to Kehl (et al):

TAB's work is mainly based on gathering expert scientific opinions. Its task is to integrate relevant knowledge in a comprehensive manner, to weigh up the available information, to disclose different positions and their normative premises, and to identify new options for (political) action in order to support the democratic decision-making processes.<sup>39</sup>

By contrast, while originally an external body when established in 1989, the UK's POST now operates within the UK parliament, governed by a board comprising parliamentarians, parliamentary officials and experts drawn from the UK's learned academies.<sup>40</sup> POST describes itself as:

 $\dots$  a research and knowledge exchange service based in the UK Parliament. It works to ensure that the best available research evidence and information is brought to bear on the legislative process and scrutiny of Government. It primarily supports the select committees of both Houses.  $^{41}$ 

<sup>&</sup>lt;sup>37</sup> Csaba Csaki, Ciara Fitzgerald, Paidi O'Raghallaigh and Fredric Adam, 'Towards the Institutionalisation of Technology Assessment: the case for Ireland', *Transforming Government: People, Process and Policy* 8(3) 2014, p. 318.

<sup>&</sup>lt;sup>38</sup> Csaki et al, 'Towards the Institutionalisation of Technology Assessment', p. 319.

<sup>&</sup>lt;sup>39</sup> Christoph Kehl, Steffen Albrecht, Pauline Riousset and Arnold Sauter, 'Goodbye Expert-Based Policy Advice? Challenges in Advising Governmental Institutions in Times of Transformation', *Sustainability* 13, 2021, p. 2.

<sup>&</sup>lt;sup>40</sup> European Parliamentary Technology Assessment (EPTA), 'United Kingdom – The Parliamentary Office of Science and Technology, EPTA. Accessed at: https://eptanetwork.org/static-html/comparative-table/countryreport/united\_kingdom.html.; POST, 'POST board'. Accessed at: https://post.parliament.uk/about-us/post-board/.

<sup>&</sup>lt;sup>41</sup> POST, 'About us'. Accessed at: https://post.parliament.uk/about-us/

Its work includes publishing peer-reviewed research, helping Parliament to access experts and evidence, identifying emerging areas of interest and supporting the exchange of expertise between researchers and the Parliament through fellowships and other activities.<sup>42</sup>

The core tasks undertaken by bodies like TAB and POST require both advanced understanding of science and technology matters and highly developed novice-oriented abilities and as such should be considered a form of meta-expertise.

In an Australian context, a 2021 report by the Australian Senate Legal and Constitutional Affairs References Committee recommended the establishment of 'a Parliamentary Office of Science, modelled on the United Kingdom Parliamentary Office of Science and Technology, to provide independent, impartial scientific advice, evidence and data to the parliament, and all Members and Senators'.<sup>43</sup> This was supported by the Australian Academy of Science, which highlighted the challenges for 'non-experts to determine the authority and accuracy of information provided, particularly when committees can receive flatly contradictory advice'.<sup>44</sup> In arguing for the establishment of a Parliamentary Science Office, the Academy maintained that 'Committees are not well set up to identify poor quality information and are therefore vulnerable to erroneous data and deliberate misinformation'.<sup>45</sup>

Further, the NSW Parliamentary Research Service recently established a service for sourcing independent, objective analysis and advice from external experts on complex and technical matters, a resource that is available to committees as needed.<sup>46</sup> This followed a 2019 examination of how committees could benefit from the assistance of experts external to the Parliament, conducted by the NSW Legislative Council's Procedure Committee.<sup>47</sup>

<sup>43</sup> Senate Legal and Constitutional Affairs References Committee, *Nationhood, national identity and democracy*, Parliament of Australia, 2021, p. 174.

<sup>46</sup> Anita Knudsen, 'Collaborating with External Experts', Association of Australasian Parliamentary Libraries Conference 2025. Accessed at: https://www.apla.asn.au/2025-conference/.

<sup>42</sup> POST, 'About us'.

<sup>&</sup>lt;sup>44</sup> Australian Academy of Science (AAS), 'How should the Australian Parliament get its science advice?', AAS. Accessed at: https://www.science.org.au/curious/policy-features/how-should-australian-parliament-get-its-science-

advice#:~:text=A%20Parliamentary%20Science%20Office%20should,and%20evidence%20to%20all%20parliament arians.

<sup>45</sup> Ibid.

<sup>&</sup>lt;sup>47</sup> Legislative Council of NSW Procedure Committee, Consultation on highly contentious bills and committee access to external experts, Report No.12, September 2020; NSW Parliamentary Library submission to NSW Legislative Council, Inquiry into Consultation of Highly Contentious Bills, Submission No. 9, November 2019. Accessed at:

In their role of investigating issues and legislation, the work of parliamentary committees includes finding out the facts of an issue, examining witnesses, reviewing evidence and drawing reasoned conclusions.<sup>48</sup> While committee work involves the use of meta-expertise—for example, in advising committee members about the selection of expert witnesses to invite to committee hearings—committees are not a focus of this paper.

## **DISCUSSION: IMPLICATIONS AND FUTURE RESEARCH**

The purpose of the above has not been to suggest that meta-expertise is something new but rather to clarify its role as a discrete and necessary feature of the social distribution of knowledge and to highlight its value to the work of parliaments. Greater and greater volumes of information, specialisation, complexity and uncertainty mean that the daunting epistemic gap between high level expertise and non-experts is only likely to become more and more daunting. Parliaments will increasingly require highly capable intermediate experts to assist with (quickly) understanding complex research, making and scrutinising decisions and representing citizens.

By identifying meta-expertise as specific form of expertise within parliaments, our intention is not just to highlight its current role but also suggest it as something that can be improved on. This means asking questions about the strengths and limitations of the current institutional forms of meta-expertise in parliaments (as well as policy advisory systems outside of parliaments) and what might be the optimal arrangements under which they perform their roles.

One set of questions is about ensuring research is of the highest quality; that is, accurate, based on a sound understanding of the subject area, oriented towards the needs of parliament. For example:

- Is this primarily a matter of recruitment, development and retention practices?
- What is the appropriate balance between specialisation and general research skills?

 $https://www.parliament.nsw.gov.au/Icdocs/submissions/66449/009\%20Department\%20of\%20Parliamentary\%20\\ Services,\%20NSW\%20Parliament\%20ORIGINAL.pdf$ 

<sup>&</sup>lt;sup>48</sup> House of Representatives, Parliament of Australia, 'House of Representatives Practice (7<sup>th</sup> Edition), Chapter 18 – Parliamentary committees'. Accessed at:

https://www.aph.gov.au/About\_Parliament/House\_of\_Representatives/Powers\_practice\_and\_procedure/Practic e7/HTML/Chapter18/Parliamentary\_committees.

- What service models and quality control practices are best?
- Is greater contestability of expert views within the institutions a viable option? (or how might meta-experts within the institutions make greater use of contestability among external experts?)<sup>49</sup>
- How might the various strands of expertise within a parliament (expert bodies and committees) operate more effectively together in pursuit of quality?

Further, parliamentary research institutions must balance independence and autonomy with the need to ensure they are directly focused on the needs of parliaments. As Miller et al note:

To perform their task adequately, parliamentary institutes need to be operationally autonomous. They need to be free of government control, of partisan influence and also of the influence of other institutional figures such as the Speaker of the House. Should parliamentary institutes be influenced by the Speaker, by one of the parliamentary parties or by the government, they would not be able to gather and provide free and reliable information  $\dots$  50

Similarly, they must avoid being overly associated with particular experts or expert viewpoints. In the words of the IPU and IFLA guidelines, 'a parliamentary research service will need to balance the value of the expertise found in academia and think-tanks against the risk of being associated with partisan endeavours'. Indeed, Fitsilis and Koutsogiannis have argued for PRS to adopt strategies to 'stand out' in the informal competition with more partisan external think tanks and research centres. 2

On the other hand, according to Miller et al:

... in spite of their operational autonomy, parliamentary institutes need to be sufficiently attached to the parliamentary system. This second necessity is due to

https://papers.ssrn.com/sol3/papers.cfm?abstract\_id=3216371.

<sup>&</sup>lt;sup>49</sup> Roger Koppl, *Expert Failure*. See also: Roger Koppl, 'Public health and expert failure', *Public Choice* 195(1-2) 2023, pp. 101-124; Brian Head, 'Reconsidering expertise for public policymaking: the challenges of contestability'.

<sup>&</sup>lt;sup>50</sup> Robert Miller, Riccardo Pelizzo and Rick Stapenhurst, *Parliamentary Libraries, Institutes and Offices: The Sources of Parliamentary Information*, Washington DC, World Bank Institute, 2004, p. 9.

<sup>&</sup>lt;sup>51</sup> IPU and IFLA, *Guidelines for Parliamentary Research Services*, p. 38. See also Christoph Kehl et al, 'Goodbye Expert-Based Policy Advice?

<sup>&</sup>lt;sup>52</sup> Fotios Fitsilis and Alexandros Koutsogiannis, 'Strengthening the Capacity of Parliaments through Development of Parliamentary Research Services', 13<sup>th</sup> Workshop of Parliamentary Scholars and Parliamentarians, 29-30 July 2017, Wroxton College, Oxfordshire, UK. Accessed at:

two different but related needs. The first is that parliamentary institutes need to be credible partners in the eyes of the individual parliamentarians and of the parliamentary administration. The second is that if parliamentary institutes are not sufficiently attached to the parliament, they might not be sufficiently sensitive to the needs arising from the parliamentary functioning and, thus, they might fail to provide appropriate and timely information, training or both. 53

What then is the optimal approach to balancing autonomy and appropriate attachment to parliaments, and impartiality with the kinds of connections with external experts necessary to develop subject area mastery?

Further, how might parliamentary researchers establish whether they are effective in their roles? The case for institutional expertise within parliaments is well-recognised but the usage and impact of these institutions has been less explored. What value do they add in terms of the quality of legislation, debate or scrutiny? What measures of impact and influence might be possible? <sup>54</sup>

Finally, there are questions about the capacity of parliamentary research institutions to face current and future challenges such as greater complexity of issues, pressures for more rapid responses, contestation of expert knowledge, political change, and the emergence of advanced technological applications such as artificial intelligence. To what extent will these require the development of new competencies, processes, service types, and organisational forms?

### CONCLUSION

There has been relatively little study of expertise in a parliamentary context. In this article we have suggested that the work of Harry Collins and Robert Evans provides a useful starting point, in that it identifies various forms and levels of expertise, and, importantly, provides a basis for determining who should and should not participate in decision making in technical areas.

We have also drawn attention to meta-expertise as a specific form that is essential to narrowing the epistemic gap and meeting the immediate needs of parliamentarians. If parliaments are to be best equipped to deal with complex matters of public policy in a changing world, then we maintain this will require an increased focus on expertise in general, but especially on meta-expertise and how it can be optimised. While 'following the science' and

<sup>53</sup> Miller et al, Parliamentary Libraries, Institutes and Offices, p. 8.

<sup>&</sup>lt;sup>54</sup> Tarek Al Baghal, 'Usage and impact metrics for parliamentary libraries', *IFLA Journal*, 45(2) 2019, pp. 104-13; Roswitha Poll and Philip Payne, 'Impact measures for libraries and information services', *Library Hi-tech* 24(4) 2006. Robert Miller et al, *Parliamentary Libraries, Institutes and Offices*, p. 14.

other forms of complex expertise will increasingly be a challenge, meta-expertise provides a crucial support for parliaments in performing their roles.