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<https://doi.org/10.1177/0963662519852038>

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Dommett K, Pearce W. What do we know about public attitudes towards experts? Reviewing survey data in the United Kingdom and European Union. *Public Understanding of Science*. 2019;28(6):669-678. Copyright © 2019 The Author(s). DOI: <https://doi.org/10.1177/0963662519852038>. Article available under the terms of the CC-BY-NC-ND licence (<https://creativecommons.org/licenses/by-nc-nd/4.0/>).

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Public Understanding of Science <https://doi.org/10.1177/0963662519852038>

## **What do we know about public attitudes towards experts? Reviewing survey data in the UK and EU.**

### **Abstract**

*Recent developments in contemporary politics have cast doubt on the status of experts and led to the oft-repeated claim that the public have had enough of experts. In response, we review existing survey measures on experts and expertise in the EU and UK with three main findings. First, there is insufficient survey data available to strongly support any claims regarding public attitudes to experts. Second, the evidence that does exist suggests broadly positive public attitudes towards experts, rather than the somewhat bleak commentary associated with descriptions of a 'post-truth' era. Third, there is scope for survey questions to provide improved macro-level descriptions of some of the attributes and expectations associated with experts, and that concepts from the academic literature can provide some structure for such question. Survey data can complement more granular, qualitative approaches as part of an interpretive social science approach.*

### **Introduction**

As individuals with privileged knowledge, experts fulfil a key role within democracies, facilitating decision-making, public debate and societal progress. Experts provide an apparently indispensable bridge between complex and uncertain bodies of knowledge and publics who seek guidance on how to act on such knowledge (Jasanoff, 2005: 267). Social issues such as climate change (Pearce et al., 2017), vaccination (Attwell et al., 2017) and genetic engineering (Helliwell et al., 2017) are familiar arenas for challenges to expert knowledge. In recent years, some commentators have argued that these trends have given rise to a new era of 'post-truth' in which traditional experts have become increasingly redundant (for a summary and rebuttal, see Jasanoff & Simmet, 2017). Across Europe and Latin America the rise of 'populist' political movements has led the role of professional politicians and technocrats to be questioned (Mudde and Kaltwasser, 2012). In the UK, controversies over expert claims played a pivotal role in the EU referendum (Marres, 2018), prompting former Royal Society president Paul Nurse to complain that the "derision of experts" is undermining science (Katz, 2017) and a *Guardian* commentator to describe Brexit as a "dangerous strain of anti-intellectualism" (Nuccitelli, 2016). Some scholars have lamented the "death of expertise" (Nichols, 2017) and sought to highlight science as essential to properly-functioning democracies (Collins and Evans, 2017). So while interest and concern regarding expert-public relations has risen in some quarters, what academic evidence is there to support the notion that experts are becoming increasingly rejected?

In this research note, we answer this question using evidence from the United Kingdom and European Union, with a particular focus on survey data. First, we argue that 'experts' is a broad category that has become increasingly visible and salient over the last decade. Second, we argue that survey data can provide useful evidence regarding public attitudes towards experts, complementing ethnographic analysis within an interpretive social science approach. Third, we detail our methods for reviewing survey data evidence about experts. Fourth, we discuss our main results: that there have been few attempts to systematically gather and evaluate public attitudes towards experts, and that there are important limitations to the questions that have

been posed. Fifth, we suggest future improvements to surveys around questions of who qualifies as an expert, and what experts should do.

### **The visibility and salience of ‘experts’**

There is an extensive academic literature analysing the production and representation of expert knowledge in democracies (Collins and Evans, 2002; Grundmann, 2017; Jasanoff, 2003; Pearce and Nerlich, 2018; Rip, 2003). This academic interest is echoed by increasing media coverage of experts and expertise, a measure that helps gauge public visibility and interest in a topic (Mazur, 2016). For example, the number of United Kingdom newspaper headlines containing the words ‘expert’ or ‘expertise’ increased by 114% between 2010 and 2018, and by 56% in a sample of all English Language News across the world (see Table 1). As an object of study, experts and expertise are both ubiquitous and hard to pin down (Osborne, 2004; Pfister and Horvath, 2014; Turner, 2001). Media articles from a single day in 2017 illustrate this, with expertise being summoned and cited on subjects as diverse as waterboarding (Grobe, 2017), norovirus (Sun, 2017), archaeology (Anon., 2017) and Nottingham Forest Football Club (Kendrick, 2017). So ‘experts’ as a category of study is both diverse and contingent, but this is not a reason to ignore it. Rather, it is a salient topic of public interest, particularly with regards to political decision-making, as denoted by the spike in mentions of experts in 2016, the year of the UK’s EU referendum. With a diverse research approach, studying experts can help indicate the role and importance that publics assign to certified knowledge.

Year	UK English Language news (total for year)	All English Language news (total for first week of year)
2010	5040	1201
2011	4355	1099
2012	6729	1128
2013	8069	1422
2014	9521	1525
2015	10212	1650
2016	13104	1874
2017	10418	1661
2018	10803	1874

**Table 1: mentions of expert OR experts OR expertise in headlines of articles within Nexis database <sup>1</sup>**

Broadly speaking, there are two approaches to research expertise. First, one may seek a micro-level, detailed understanding of the performance of expertise within specific cases, using methods such as media frame analysis (Setälä and VäLiverronen, 2014), digital ethnography of discussion forums (Sosnowy, 2014) or discourse analysis of public events (Kerr et al., 2007). Such studies are vital in identifying the particulars of knowledge politics within a given situation. Second, one may seek a more macro-level analysis of the categories of experts and expertise, tracking their visibility within societies and public beliefs about their proper role. Such studies cannot, and should not, replace micro-level research. However, they do have the potential to help identify broad trends and contribute to theoretical questions about experts that have been previously

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<sup>1</sup> The Nexis database provides a powerful means of interrogating a broad sweep of media sources. It is known to have limitations, such as its frequent reconfiguring that can lead to slight differences in results returned over time (Nerlich and McLeod, 2016). However, the size of the corpus means that it is useful in indicating trends over time, as the data has been used for here.

raised in the academic literature (Turner, 2001). These questions have become increasingly salient with the rising prominence of the expert as a media figure and locus of political contestation. In the next section, we discuss one of the most commonly-used means of gleaning public beliefs: survey data.

### **The appropriateness of survey data as research method**

The study of public opinion can be done in many different ways, using focus groups, interviews, and observation, but representative surveys of public opinion remain an important influence on our understanding of what people think through usage in the media and public debate (Osborne and Rose, 1997). There is an important literature pointing to several limitations in the use of surveys. Opinion surveys ideally require concrete categories of reference over which there is little contestation, yet publicly salient issues often require surveys of categories that are contested. In such circumstances, survey categories are given an unwarranted concreteness (Edelman, 1993). If asking in general terms about attitudes towards experts it is not clear whether a survey respondent is imagining an expert as an academic, a scientist in a lab coat or member of the public with encyclopaedic knowledge about their favoured hobby. This makes it challenging to determine the uniformity of public views or the contingencies that condition people's views. On a topic as complex and heterogeneous as expertise, stable preferences and poll findings can therefore condense complex attitudinal influences into single responses and measures. The danger here is that survey data is used to present public opinions as definitive (Bishop, 2004), overlooking the possibility that citizens may not hold stable, well-formed opinions on a given issue (Zaller and Feldman, 1992).

Survey questionnaires have also been criticised within the interpretive social sciences, noting that methodological pre-occupations with reducing bias can introduce unwarranted constraints on potential survey responses, which conceal the meanings that lie behind participants' responses to questions (Schwartz-Shea and Yanow, 2012: 96–97). However, these criticisms should not lead interpretive social scientists to eschew the survey altogether. Survey data can still help to “sketch the social world in broad strokes”, providing macro-level descriptive power without recourse to attempts at explanation through multi-variate analysis (Bevir and Blakely, 2018: 94–95). The power of a survey does not stem from its ability to draw on stable categories as these rarely, if ever, exist in relation to social issues. Instead, survey data is one macro-level research method that can contribute, in conjunction with micro-level methods such as ethnography or life-story interviews, to a narrative explanation of social issues (Bevir, 2006).

We have argued for the potential importance of survey data as a complement to the existing academic literature on expertise within an interpretive social science approach. Next we detail our methods for finding and collating relevant survey data that already exists.

### **Data sources and methods**

In this article we review existing survey data, specifically using the Centre for Comparative European Survey Data Information System (CCESD-IS).<sup>2</sup> This archive provides access to historic survey data from Eurobarometer, European Social Survey, European Values Survey, European Quality of Life Survey, International Social Survey Programme, British Social Attitudes Survey, Conservative Party Representatives Study and the British Election Study. No unified database of

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<sup>2</sup> Data was collected and coded May-September 2017.

global survey questions is currently available, so we used the CCESD-IS because it provides a robust and systematic means of searching survey data from multiple countries. CCESD-IS has a European focus so we also searched the World Values Survey archive to include further international questions. For increased topic relevance, we also included the UK Public Attitudes to Science survey (Department for Business, Innovation & Skills, 2014). Together, these sources provide an indicative sample upon which to assess currently available data, and a platform for larger studies in the future.

Each survey was searched to identify questions or response options that contained any of the following words: 'expert', 'expertise', 'trust', 'academics', 'profession\*', resulting in a list of 97 distinct questions.<sup>3</sup> We developed a three-stage coding framework. First, questions were classified according to **focus**, distinguishing between questions that:

1. mentioned expert or expertise in question,
2. mentioned expert or expertise in the answer,
3. referred to one of the following groups:
  - a. government (including elected officials, politicians),
  - b. scientists/science,
  - c. media,
  - d. members of the public
  - e. other professions,
  - f. other institutions.

Second, the **relevance** of questions to our public perceptions of experts was classified as directly relevant, tangentially relevant or not relevant. Directly relevant questions commonly referred to the idea of experts, whereas tangentially relevant questions required further information to test their relevance. For example, questions about the attributes of scientists were coded as tangentially relevant as it was unclear whether scientists themselves were understood by the respondent to be experts.

Third, the content of questions were assigned up to two of the following codes for **substantive content**:

1. General trust statements (such as judgements of trust in particular institutions or groups),
2. Outcome trust statements (such as questions on trust in institutions to produce positive outcomes or do the right thing),
3. Status judgements (such as whether experts or the public were granted higher status),
4. Expertise as a source for decision-making (i.e. should expertise or experts be used more in decision-making),
5. View of science (descriptions of science),
6. View of experts (traits or opinions of experts),
7. Attributes of professions (such as perceived honesty or trustworthiness of specific professions),
8. Requirements of profession (i.e. is expertise needed?).

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<sup>3</sup> Questions asked in more than one domestic context were not recorded for each individual country.

These codes allowed us to identify *who* and *what* survey questions focused on, but also *how relevant* these survey questions were in ascertaining public perceptions of experts. Questions were coded independently by two researchers and then cross-verified to finalise codes. In total 85 per cent of initial codes were consistent in the first coding, with 15 per cent altered after discussion and refinement of the coding framework.

### **Public attitudes to experts: what do we know? Not much.**

Our primary finding is that despite much recent commentary on public attitudes towards experts, there is limited attention paid to this topic in established surveys. Whilst 97 questions were initially identified, only 39 were classified as directly (D) or tangentially (T) relevant to debates around experts and expertise (13-D, 26-T). This lack of focus may not be entirely surprising as many of the surveys examined have other primary foci (for example, the British Election Study primarily examines attitudes towards and participation in elections). More surprising is that where pertinent questions are asked, they are often too narrow or shallow to offer clear insight into public views.

Eight questions were identified that directly mentioned expert or expertise in the question (six directly relevant, one tangentially relevant, one not relevant). Relevant questions mainly focused on attitudes towards experts as decision-makers. For example, the World Value Survey asks whether 'having experts, not government, make decisions according to what they think is best for the country' is 'a very good, fairly good, fairly bad, or very bad way of governing this country?'. Across all the 60 countries surveyed in 2014, 55.2% responded that it was very or fairly good, whilst 36.4% answered very or fairly bad. In the UK, the British Social Attitudes Survey asks whether people agree that the 'House of Lords should consist of independent experts, not party politicians'. For example, in 2011 it found that 61% agreed or strongly agreed with this statement, with only 1.3% strongly disagreeing. On this basis it appears that, contrary to prevailing narratives, there is support for an increase in experts' decision-making powers within the UK.

Alongside data on perceptions of experts as decision-makers, we found questions on experts informing decisions made by others. Eurobarometer asks whether 'politicians should rely more on the advice of expert scientists'. In 2005 the survey found that across the 33 countries surveyed 77% strongly agreed or tended to agree, whilst just 2% strongly disagreed. The UK Public Attitudes to Science survey asks whether 'experts and not the public should advise the government about the implications of scientific developments'. Once again, responses showed support for expert involvement, with 70% of respondents agreeing or strongly agreeing with this idea. A further Eurobarometer question focused on the requirements experts should be subject to, asking whether 'scientific experts should be obliged to openly declare possible conflicts of interest, such as their sources of funding, when they are advising public authorities'. Strong support for this idea was found in 2013, with 88% totally agreeing or tending to agree with this idea, and just 1% totally disagreeing. Survey data offered more limited insights into respondents' own use of expertise. For example, the 2003 Eurobarometer survey asked respondents how they informed themselves about the current international situation and found that when provided with a list of responses, 22% mentioned 'television debate with experts'.<sup>4</sup>

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<sup>4</sup> The other options presented to respondents included 'News on national TV (82%)', 'National newspapers in our country (59%)', 'Radio Stations in our country (40%)', 'Television debate with politicians (25%)', 'Discussions with colleagues, friends and relatives (24%)', 'Continuous TV news channels' (20%), 'The

In the context of contemporary debates around public scepticism towards expert and expertise, these responses reveal perhaps surprising levels of support, particularly in the realms of decision-making. However, when it comes to the personal use of expertise there is less evidence for public utilisation of expertise. Most striking is the limited scope of the survey questions being asked, and the scant evidence of public views provided by the responses. Next, we consider how survey questions could be improved to contribute to a richer, interpretive understanding of public attitudes towards experts. Pointing to current debates within conceptual literature on expertise, we explore how different methods could be employed to generate more insight into public views. Specifically, we identify two possible themes for survey questions: who qualifies as an expert, and what are experts expected to do.

### **Expanding the survey data on public attitudes to experts**

#### *Who qualifies as an expert?*

Many scholars have identified certain attributes of experts, while others have focused on the relationship between the users and consumers of expertise. Grundmann, for example, defines an expert as a specialist, noting that specialist characteristics can apply to those possessing technical skills in the professions and science, and have an impartiality “which makes their advice trustworthy” (2017: 26). Grundmann argues that what matters most is performance: individuals become experts when ‘a client starts to use their service’ and that individual comes to be trusted and viewed as legitimate (2017: 27). Here, expertise is relational, implying both that public attitudes towards experts are important and that expert is a diverse category. While some forms of expertise are recognised as universal (e.g. physicists), others are valued only by certain groups of adherents (e.g. theologians), making it pertinent to ascertain the various circumstances under which individuals are perceived to be legitimate experts (Turner, 2001).

Existing survey questions do not generate insight into experts’ attributes. The closest measures identified in our analysis was within Eurobarometer, where a series of questions asked what it meant to study something scientifically, and the British Social Attitudes asked ‘when you see your doctor or another health professional about a medical problem, who would you prefer to make decisions about your care?’, presenting response options including ‘Your doctor or health professional, based on their expertise’. Such questions query some aspects of expert traits, yet existing survey measures fail to do this systematically, making it difficult to identify *who* is an expert and *why* they are seen to have expertise.

#### *What are experts expected to do?*

A second strand of the literature raises questions about the way in which public attitudes are informed by different conceptions of what experts are expected to do, and the nature and impact of expert contributions. Turner (2001) contends that expertise has an important role in providing shared facts as the basis for democratic debate. Much scholarship has focused on the provision of expertise to the public, conveying the idea that experts can inform the public while also recognising that important knowledge can flow from the public to experts (Irwin, 2014). Other scholars have focused on policy makers and politicians – seeing experts as vital in informing

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internet’ (12%), ‘News on TV from other countries’ (11%), ‘Newspapers and magazines from other countries’ (5%), ‘Radio stations from other countries’ (3%).

democratic processes (Cairney, 2016). Experts can also be given decision-making power (for example, in an independent commission), engaged as stakeholders to inform debate but not make decisions, as policy advisors to make suggestions, or simply as independent observers to regulate process. Experts can therefore be conveyed different degrees of personal power, affecting how they relate to other actors.

Horst highlights how experts can offer specific, subject-defined contributions for which they possess qualifications or professional expertise, or can act as a “guardian of science” whereby they speak on behalf of their field of expertise (2013: 772). Pielke Jr. (2007) describes the potential for scientists to make different kinds of contributions, differentiating between experts as pure scientists who provide information, issue advocates who focus on the implications of research for an agenda or decision-making, science arbiters who inform decision-making without seeking to drive a particular agenda, and honest brokers who clarify and seek to expand the choices of decision-makers. Here, experts can play different roles and adopt different normative positions, illustrating that experts may be subject to fluctuating expectations regarding the area of knowledge they operate within and the type of advice they provide.

Returning to the surveys, we found limited questions that concerned the status of experts in relation to decision-making and information provision. For example, Eurobarometer asks whether ‘decisions about science and technology should be based primarily on ‘the advice of experts about risks and benefits involved’ or ‘on the general public’s views of risks and benefits’. Elsewhere, the survey asks about experts as a source of information, questioning: ‘Which are the sources that you use the most to inform yourself about the current international situation?’ and ‘When forming your opinion on farming and the agricultural policy of the European Union, which sources do you trust the most?’. These questions offer some insight into the relative status of experts as providers of information and decision-makers, but do not unpack what experts are expected or perceived to do, or what role they should play. For this reason, we argue that there is a need to generate new insight into public attitudes towards experts and expertise.

#### *Scenario-based survey questions*

In order to improve the contribution of survey data to understanding, there is a need to expand existing measures to include a wider range of factors that may affect views of expertise, and refine existing measures to focus on specific traits that condition and shape citizens’ views. For example, experts’ “source credibility” has previously been identified as playing a role in whether experts are persuasive (Lachapelle et al., 2014: 675), implying a questioning of a) which attributes experts possess, and b) in what circumstances different sources of expertise are valued. One potential method to do this is a scenario-based survey question that interrogates the importance of expert attributes in particular circumstances, such as:

*Sometimes experts can offer advice to the government on policy making. Which of these attributes do you think an expert should have in order to provide useful advice?*

- *Trustworthiness*
- *Reliability*
- *Academic qualifications*
- *Practical experience of working in the area*
- *Professional qualifications*



- *Impartiality*
- *Local knowledge*
- *Good communication skills*

This method would allow the question of who qualifies as an expert to be explored further in a further question such as ‘*Sometimes experts can offer advice that help you make everyday decisions. Imagine that you are taking expert advice on what vacuum cleaner to buy. What would you look for in picking an expert to listen to?*’. Scenario-based questions can explore responses when a specific kind of expert is specified (Kahan et al., 2011), providing an overview of how expert attributes may vary between professions and cultures (Jasanoff, 2003: 394).

As argued above, ethnographies, interviews and focus groups can provide a nuanced account of expert-public relations, either mobilised independently or in combination with survey methods. For example, research into the expectations of experts would be possible to observe how publics utilise different sources of expertise when making a purchasing decision, or to gather personal reflections on encounters with experts in different contexts through diary-based methodologies. A willingness to deploy a range of methods can help unpack the complexity and contingency of expertise in a range of settings.

## **Conclusion**

In response to concerns about the ‘death of expertise’, we have conducted the first review of relevant UK and EU survey data. This review has three main findings. First, that there is insufficient survey data available to strongly support **any** claims regarding public attitudes to experts. Second, that what evidence does exist suggests broadly positive public attitudes towards experts, rather than the bleak commentary associated with descriptions of a ‘post-truth’ era. Third, there is scope for survey questions to provide improved macro-level descriptions of the attributes and expectations associated with experts, drawing on concepts from the extensive academic literature on experts.

We argue for improving survey measures not because surveys are a superior research method, but because they can complement the more nuanced explanation provided by qualitative methods. The current political moment has led to a wave of public commentary and reflection on the role of experts and expertise in democracies. Academic research is not yet supplying a sufficiently broad or robust range of evidence to meet this new-found public interest. Meeting this challenge will require the use of multiple methods and approaches across different issues and spatial scales. The role of digital technologies and platforms in producing and representing expert knowledge should also be considered (Marres, 2018; Niederer and Van Dijck, 2010). A concerted and sustained effort to research public attitudes towards experts is urgently needed to inform on-going debates regarding the role of expert knowledge in the UK, EU and beyond.

## **Acknowledgements**

WP acknowledges the support of the Economic and Social Research Council Future Leaders Research programme Making Climate Social project ES/N002016/1. The authors would like to acknowledge the excellent research support of Robin Hughes who helped to search available survey data to identify existing research on experts and expertise.

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