1 Pictures of Experts in Our Heads

1.1 Introduction

If the news reflects the pictures in our head, as Lippmann (1922) famously described, then news sources are the main characters. In the event of a car crash, the main characters may include a bystander who offers an eyewitness account, a sheriff who provides additional information about the accident, and a concerned citizen who shares neighborhood frustrations regarding a problematic intersection. Reporting a newsworthy event such as an accident is fairly formulaic: A clear cast of characters, people – who either observed or can comment on the who, what, when, where, and how of a story – contribute to the news narrative (Ross, 2007; Tuchman, 1972).

The task becomes more difficult when the news event is complicated, ambiguous, or unusual. In such cases, reporters often call upon a subset of sources – *expert sources* – to contextualize stories (Diekerhof, 2021; Gans, 1979). A climate researcher, for example, may explain how the weather is affecting local crops, while a scholar of Congress may clarify the history of legislative decision-making. These expert sources fulfill an important function, particularly as newsroom cutbacks mean journalists are increasingly called upon to report on broader geographic and subject areas (Gandy, 1982; Lewis, Williams & Franklin, 2008; Sigel, 1973). With less specialization and fewer resources, journalists are unlikely to have the needed competencies or time to comprehend the scope of a complex story (Coddington & Molyneux, 2021). Such is the case in the domain of politics, where reporting requires background knowledge of political actors, institutions, and policy.

Expert sources can step into this gap, offering (ostensibly) unbiased, factual knowledge to the news article (Albæk, 2011; Shoemaker & Reese, 1996) and adding to perceived journalistic objectivity (Reich, 2011; Steele, 1995). Experts can also lend nuance to a story – sending a signal of in-depth reporting (Boyce, 2006). Inasmuch as journalists see their role as watchdogs, shedding light on politics to hold politicians accountable, expert sources can help ensure reporters get the story right (Galtung, 1995).

The impact of this function goes beyond utility, however; who serves as an expert source affects perceptions not just of the story, but of who gets to be an expert. Expert sources serve as translators of often complex policy issues and ideas to the broader public (Berkowitz & Beach, 1993; Kruvand, 2012; Venger, 2019). When they make it to the news, experts' ideas are elevated, which affects how complicated ideas – often heavily debated and contested by scholars within a given field – come to be defined as conventional wisdom or policy in news coverage (Brown et al., 1987; Merkley, 2020; Tuchman,

1978). Said another way: becoming a news source legitimizes experts. Such legitimization is consequential, as news coverage of politics informs the work of interest groups and lawmakers who look to the news to learn of the problems the public faces (Cook, 2005). With a preference for certainty, these groups are likely to treat these translations as definitional (Esterling, 2009). Thus, the construction of politics by expert sources in the news affects our shared agenda and ultimately, policy (Baumgartner & Jones, 2009; Kingdon, 1984). The result is that both the function and form of an expert source influence the news. In this Element, we consider how expert sources come to be included in the news.

Previous studies of sourcing reveal disparities in who is included in the news. There is research to suggest that women, for example, are less likely to be included as sources than men (e.g., Mellado & Scherman, 2021; Mitchelstein, Andelsman & Boczkowski, 2019). Black experts are also much less likely to be included as sources (Zeldes & Fico, 2005). In their study of the *St. Louis Dispatch*, for example, Rodgers, Thorson and Antecol (2000) find that "White adult males dominated as sources throughout all sections of the newspaper" (Zeldes & Fico, 2005, 375). Still other work finds that expert sources in particular are also selected based on the prestige of the institutions with which they are affiliated (Armstrong, 2004; McShane, 1995; Powers & Fico, 1994; Zoch & Turk, 1998) – a pattern some have termed "the golden rolodex" (Soley, 1992).

Our work builds on these previous efforts to consider sourcing, with a focus on a particular area of expertise: politics. We begin by tracking the patterns of expert sources in the news, before turning to the driving question of this Element: Whose research and ideas become scientific fact for news audiences?

1.1.1 Layers of Influence

Our approach begins with the idea that media content, as Reese and Shoemaker (2016) write, is a function of different, layered factors such as "individual characteristics of specific newsworkers, their routines of work, organizational-level concerns, institutional issues, and larger social systems" (396) – or what they call the "hierarchy of influences."[1] From our perspective, then, to understand how and why certain experts are included (and, why others are excluded) one must consider not only journalist decision-making and the organizational constraints that shape journalist behavior, but also what Reese and Shoemaker (2016) term "extramedia" influences. Here we consider one particular extramedia factor: the preferences and institutional constraints of the experts themselves.

[1] Reese and Shoemaker (2016) explain these different factors as distinct levels – some micro and some macro.

Constructing expertise through the news operates, at a minimum, under several layers of influence: first, the journalist selects the expert and second, that the expert has the ability and incentive to agree to media requests. While these are necessary conditions for experts to make the news, they simplify what is likely the result of far more complicated interactions between institutions and individuals. Journalists – working under newsroom pressures, within organizational constraints, and under professional norms – select who gets to speak for experts *and* expert preferences. These selections are shaped by the institutional contexts in which journalists and experts operate. Also implied are the sociocultural and professional socialization processes that exert selection effects on both journalists and academics long before they even have the chance to engage in such interactions.

At the end of this interplay between individual preferences and institutional characteristics, the chosen expert source gets the opportunity to define the problem space for the public in a way that could lend certainty to otherwise complex topics. Moreover, the news media are often the primary way the public learns of expertise. Thus, to understand who is included as an expert in the news is to understand how the news informs the public. In other words, who we believe to be an expert and what we believe to be expertise has consequences.

1.1.2 Capturing Expertise in the News

Although different types of individuals can serve as expert sources in the political realm, in this Element we deliberately limit our focus to expert sources with a Ph.D. who are employed by an institution of postsecondary education.[2] We believe our focus on academics as expert sources is both useful and important. First, focusing on academics allows us to define a specific population of expert sources – which gives us greater methodological leverage to track extramedia influences. In Section 4, for example, we conduct a survey of potential sources to better understand how they interact with news media requests – a type of study we could have only done with a defined expert population. Second, academics are often advised to make their work more publicly accessible – "a means of demonstrating impact, as well as a way to help others and inform the public" (Kamau, 2019, 425). From this perspective, interactions between journalists and academics have key implications for *whose* ideas inform. On a broader level, political expertise may be uniquely difficult to convey (Lupia, 2000), and therefore focusing on politics gives us a glimpse into how complex information is cocreated between the experts and the news.

[2] Here we include all types of postsecondary institutions.

Finally, there is reason to believe that the patterns we observe with political science academic expert sources can translate to other types of expert sources. While it is outside the scope of this work to investigate whether the patterns we observe for political science extend to other categories of experts, we suspect this may be the case, at least for other social scientific disciplines (e.g., economics, sociology, etc.). We will revisit this point in the Conclusion. There are, undoubtedly, important expert sources who fall outside the academic category; we hope other researchers will extend this work to other expert types and we are hopeful that the findings in this Element can serve as a starting point.

Throughout the Element the goal is, first, to track which types of political experts are most likely to be on journalists' "rosters of expert sources" (Kruvand, 2012, 567). Then, we consider how various individual characteristics of expert sources affect journalists' perceptions of expertise and, ultimately, news judgments.

Who speaks for political experts, our findings suggest, is often a function of who has spoken for political experts in the past. In line with previous research, we also find experts with some social media cachet are more present in the news (McGregor, 2019). And, of course, who had the opportunity to speak in the past is the culmination of other factors – race, gender, and institutional prestige. Ultimately, research on politics is often an area with disagreements – some are conceptual, some are methodological, and some are specific to a particular research area. Thus, people who are elevated to the role of expert sources, especially those who are elevated to that role with frequency, likely speak to a particular set of findings and a particular research agenda. Yet the translation from expert to news means that these ideas become entrenched, often with more certainty than the research suggests. Thus, while the inclusion of expert sources may seem like yet another aspect of news production, it is an aspect with consequences that stretch beyond a single story.

1.2 Who Is an Expert Source?

Before we can understand how and why certain academics end up as expert sources, we need to describe political expert sources and who sources them. Previous projects have examined patterns in the number of official sources cited (Powers & Fico, 1994; Sigel, 1973), and the number of women sourced (Jia et al., 2016; Shor et al., 2015), including the gargantuan task of tracking women sources around the world and across mediums (Macharia, 2020). Other work has considered the role of academic prestige in sourcing, suggesting that scholars from certain types of universities and those who publish in certain types of journals are more likely to be expert sources (Soley, 1992). Indeed,

Soley (1992) blamed journalists' use of a "golden rolodex," or a contact list of expert sources with prestigious credentials (e.g., association with an Ivy League university), for the overrepresentation of academic prestige in the news.

Building on this work, we also begin by considering patterns in expertise by analyzing which types of scholars appear as experts in media coverage. Here, we turn to a content analysis of a random sample of articles published in the *New York Times* during the 2020 national election. Using these articles, we consider whose voices are amplified and elevated to "expert" status. We use this data to consider not only which scholars form the "pictures in our heads" but also which ideas construct our politics.

1.2.1 Methods

We first collected a population of articles the *New York Times* published between August 3, 2020, and November 3, 2020 (Election Day), which contained academics cited as expert sources.[3] Although the *New York Times* is only one source, we follow previous research in treating it as an exemplar outlet (Boydstun, 2013). To start, we collected articles that included *any* expert sources. Although our interest is in political expertise specifically, our goal in the content analysis is to first track the general use of expert sources and then compare these general patterns to the use of political expert sources, specifically. In total, we began with a population of 1,481 articles.

As a next step, we relied on a group of four coders to hand-code a random sample of 901 articles, of which, 556 met our criteria for coding: inclusion of an academic expert source in the form of a stand-alone article or op-ed (rather than, for example, an aggregated news brief or an announcement).[4] Here we further define "expert sources" as those experts included in an article because of their research and knowledge on a topic. By this definition, an academic who was interviewed because of their specific involvement in the topic of the article (e.g., as a plaintiff in a court case or a witness to a crime) would not be considered an expert source, while an academic providing contextual commentary

[3] Articles were pulled for the *New York Times* between August 3, 2020, and November 3, 2020, with the key terms "researcher" or "professor" using MediaCloud Explorer. These key terms were decided upon after an iterative process found them to be the most reliable and valid (McGregor et al., n.d.). MediaCloud yielded a list of 1,480 URLs, of which the story text for each was pulled via a Python loop, using the Goose3 package, which extracts articles' content, and metadata from the URL.

[4] To develop the codebook, we followed an iterative process relying on actual *New York Times* content to validate the instrument. After drafting the codebook, we deployed the draft instrument in several rounds of coding practice. We then solicited feedback, using this feedback to further refine the instrument. Once finalized, coders were asked to familiarize themselves with the instrument and were then trained over the course of several hours. Coders participated in several practice rounds of coding to ensure conceptual alignment.

(perhaps based on their research) about a news event would be. In most cases, this took the form of an interview with a journalist; in more rare cases, this took the form of a mention (often with a link) to a research product (e.g., a book, academic article, or survey).[5] The instructions provided to the coders for identifying expert sources are in Online Appendix A.1. This final set of 556 articles included a total of 1,074 expert sources, of whom 976 were unique (some experts were interviewed for multiple articles in our sample).

These articles and experts were first hand-coded for (a) the gender of the journalist and (b) the academic research area of the expert. Again, for the purposes of this Element, experts are defined as individuals with a Ph.D. who are affiliated with an institution of higher education. This definition, of course, limits our discussion and our coding, but does allow us to focus on a defined population, which is critical to the "expert-side" analyses we conduct in Section 4. To retain consistency in coding the research area, coders considered whether the expert was identified as being in a political science department (or teaching a political science course) or in an "adjacent" department – for example, public policy or international relations. If the scholar's departmental affiliation was unclear, coders would search for more information. Any interviewed expert with a political science Ph.D. (or a Ph.D. in an area such as public policy or international relations) would also be considered a political expert regardless of the particular department with which they were affiliated.[6]

When the source's expertise was in politics, the original coders collected additional information, including their gender, institutional affiliation, departmental affiliation, and professional rank. A different coder later hand-collected information on the race of the political sources. Although the political experts were hand-coded, we did obtain demographic information on the remaining experts (i.e., those who were not experts in politics) using software tracking race and gender by name (Imai & Khanna, 2016; Wais, 2015).[7] At a later point, a different coder also collected information on the political experts' social

[5] It is possible for an academic to have a byline in the *New York Times*. We do not consider these bylines in our expert source count as they are not a function of journalistic sourcing. An academic with a byline may have been invited to contribute by the editor or they may have pitched the piece themselves; our focus is on journalists (and op-ed writers) selecting expert voices. It is possible for there to be a piece written by an academic that references other academic expert sources; if this was the case, we would have coded those expert sources as usual, but flagged that piece within the analysis. This is not something that occurs within the data.

[6] So, for example, a scholar with a public policy Ph.D. affiliated with an informatics department would be coded as a political expert.

[7] We calculated inter-coder reliability statistics for latent variables coded by separate coders using Krippendorff's alpha. These include (1) whether the article is an opinion piece: $\alpha = 0.72$; (2) gender of the journalist: $\alpha = 0.76$; and (3) number of expert sources: $\alpha = 0.71$.

Table 1 Demographic characteristics, expert sources

	All	All, 1+ Interview	Political	Political, 1+ Interview
Women	37.09%	38.92%	26.73%	22.00%
Men	62.07%	59.88%	73.26%	78.00%
Black	3.54%	3.59%	7.94%	4.00%
Latinx	2.61%	3.59%	1.06%	0
Asian	9.60%	13.17%	10.05%	22.00%
White	83.69%	79.64%	79.31%	74.00%
N	1,073	187	167	50

Note: *N* reflects the number of expert sources.

media presence (whether they were on Twitter and their number of followers), as well as more specific information about their research area.

1.2.2 Broad Patterns in Expertise

As an initial step, we consider overall demographic patterns in our data, starting with the entire set of expert sources, before moving on to the expert sources who study politics. We present these results in Table 1. In these results, the race and gender identifications for the full set of sources are obtained via software (Imai & Khanna, 2016; Wais, 2015), while the race and gender patterns for political expert sources are hand-coded.[8]

Echoing previous research, this first set of results shows that the experts – whether political or otherwise – in our sample are largely men. Notably, the gap between women and men political experts is double the gap between women and men experts, writ large. In the case of political experts, we can compare this percentage to a baseline – the proportion of registered members of the American Political Science Association (APSA) who identify as women. Notably, the proportion of women who are registered members of APSA is 37.4%, suggesting that women are underrepresented in our list of political expert sources.[9] Our sample of experts is also overwhelmingly white. Indeed, 53.6% of the expert

[8] Following Imai and Khanna (2016), for racial identification we use the group with the highest produced probability. Note, however, that we deviate slightly from Imai and Khanna (2016) by not using partisan identification. We also used our set of hand-coded experts to consider the validity of the automated coding; using *genderizeR* replicates hand-coding 94% of the time. Predicting race via names predicted the same race as our hand-coded sample 86.9% of the time.

[9] Data from February 2020, reported by APSA here: www.apsanet.org/RESOURCES/Data-on-the-Profession/Dashboard/Membership.

sources in our sample are white men – a proportion that increases to 62.4% in the set of political experts. In contrast, only 4.2% of the political experts in our *New York Times* sample are Black women.

We do not, however, see substantively large shifts in demographics when we consider expert sources who were interviewed more than once (e.g., were quoted in multiple articles) in our sample. In other words, the demographics of experts who gave more than one interview are generally similar to those who only appear once in our sample.

As a next step, we take article-level dynamics into account and consider patterns in expertise as a condition of journalist demographics. Here we focus on the gender of the journalist, which was hand-coded. Some of the articles in our sample were authored by multiple journalists, so we distinguish between articles that had *any* women authors versus those that were authored by men only.[10] We present our results in Table 2.

Previous research suggests that, theoretically, women journalists may be somewhat more likely to include women as expert sources (Hanusch & Nölleke, 2019), though past content analyses do not find a clear relationship between journalist and source gender (Cann & Mohr, 2001). We see that articles that have at least one woman as an author are more likely to include women as expert sources. This is true within the entire sample of articles, as well as in the articles with political expert sources.[11]

As a final step, we consider whether articles with more sources are more likely to have a diverse set of experts simply because the journalists may be reaching out to more people. We see no evidence that this is the case. In fact, we see evidence that the diversity of experts interviewed actually *decreases* as an article features more sources. There are several possible reasons for this outcome. First, articles with multiple expert sources often included coauthors on research projects, and academic networks are likely to be homogeneous (e.g., Teele & Thelen, 2017). Another possibility is that, when journalists work

[10] Articles that were written by a group – like the *New York Times* board – are excluded from these results.

[11] While previous research suggests sourcing patterns by gender, there is not clear guidance on what (if any) expectations we can have regarding the interaction of journalist gender and source race. We present the data here for interested readers, hoping it may motivate future study, but caution interpretation accordingly. Some noteworthy patterns: while 48.1% of articles reported by women include sources who are white men, the proportion of white men sources increases to 60.7% in articles written only by men reporters. Although the proportion of Black women as expert sources is very low across all types of articles, Black women are somewhat more likely to be included in articles with at least one woman author. In total, 2.26% of articles authored by at least one woman include Black women as expert sources compared to 0.9% of articles authored only by men. The difference, however, does not reach conventional levels of statistical significance at $p = 0.085$, two-tailed.

Table 2 Demographic characteristics of expert sources, by journalist gender

	All		Political	
	Women journ.	**Men journ.**	**Women journ.**	**Men journ.**
Women	43.62%	28.44%	31.39%	23.23%
Men	55.74%	70.44%	68.60%	76.77%
N	619	450	89	99

Note: *N* reflects the number of expert sources.

on articles with many sources they build their roster of experts by asking already-interviewed experts for recommendations. Again, then, the potential homogeneity of academic networks would lead to a less diverse set of expert sources.

1.2.3 Expertise in Political News

Our goal, however, is to consider the construction of *political* expertise. Therefore, we next turn to patterns in the set of articles interviewing political experts. Here, in addition to demographic variables, we can consider other descriptive information about the scholars. As Table 1 already showed, most of the political expert sources are white and men (indeed, 62.4% of them are white men). As a next step, we turn to their academic backgrounds.

First, unsurprisingly, most political experts interviewed are in political science departments (85.2%). Second, 25.9% of them are from institutions outside the United States. The scholars from international institutions are more likely to have been included as an expert source in more than one article in our sample. The patterns hint at the possibility that once journalists speak to an international expert source they tend to return to that source for other articles that address the same topic, rather than cultivating new international sources.

Next, the plurality of our experts – 45.6% – are scholars of American elections or public opinion; another 13.4% focus on American institutions. This is to be expected given that our sampling frame is articles published in the lead-up to the 2020 election. Comparatively, 16.8% of the political experts are scholars of international relations and 15.4% study elections and public opinion in other countries.

As a next step, we turn to the academic backgrounds of these scholars. Previous research suggests that journalists may be attracted to institutional prestige (Soley, 1992). Therefore, it is reasonable to expect that this preference may manifest in the numbers of expert sources from highly ranked institutions and

Table 3 Academic positions, political expert sources

	All	1+Interview
Ph.D. candidate	2.14%	0
Post-doc	0.71%	0
Lecturer	3.57%	0
Assistant	9.29%	0
Associate	21.43%	16.67%
Full	56.43%	83.33%
Emeritus	3.57%	0
N	140	36

Note: International scholars are not included. Percentages do not add to 100% in some cases because either the position of the academic was unclear (0.71%), or the person is deceased (1.43%).

departments in our data. We can extrapolate this idea to professional rank, which can serve as another signal journalists use to select among possible expert sources. In our next set of results, we turn to the positions of our expert sources (e.g., assistant, associate, or full professor) and the ranks of their institution and department. Notably, we can only do so for academics who are within the United States, as both position and rank may not translate globally. We first look at academic positions in Table 3.

The results in Table 3 suggest that the majority of political experts in our sample are full professors. Moreover, full professors are also more likely to be sourced in more than one article. This reliance on full professors may also explain the demographic patterns in Table 1: most full professors in political science are white men (Alter et al., 2020).

We next turn to university ranks – again focusing on American postsecondary education institutions to ensure comparability. First, we note that the bulk of the political experts in our sample – 73.6% – came from R1 institutions.[12] The next largest group of scholars, 7.86%, came from liberal arts colleges. In contrast, only one of the experts in our sample of political sources came from a historically Black college or university.

In Table 4 we present patterns by two types of ranks: the ranking of the political expert's university and the ranking of the political expert's department. We focus here on university rankings given the institutional makeup of the

[12] Also classified as Doctoral: Very High Research by the Carnegie Classification of Institutions of Higher Education.