

Partisan News: A Perspective from Economics

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Abstract

I briefly summarize the economics literature on ideologically slanted political media (which I call, for short, partisan news), and discuss directions for future research. In the literature review, I take a history of thought approach, describing how theory and empirical work have fed off one another and real-world events. I also note ways in which the work of economists differs from comparable work from other disciplines. In the discussion of future research, I identify open questions and policy options, and assess the relationship between research from economics and other disciplines.

INTRODUCTION

The political news media has been studied extensively by social science and journalism scholars for decades.¹ Economists mostly neglected the Fourth Estate until the early 2000s. Interest in the topic was motivated then by two main factors: (i) growing public distrust in the media as an institution and (ii) significant technology-driven changes occurring in the content and competitive structure of media markets. Interest was strengthened as we (perhaps belatedly) recognized that the media as an industry has greater social and political importance than most, maybe all, others. The time was also right for economics media research due to the recent development of applicable research methods (computational text analysis, natural and field experiments, and ideas from behavioral economics), allowing economists to address questions that beforehand may have seemed outside of our domain.

A good portion of this new economics political media literature focuses on the specific issue of ideologically slanted political media content, which I call, for short, partisan news. For most industries, economists believe that increasing the diversity of goods serves consumers and society well. However, the overall benefits of greater diversity in news viewpoints are not as

1. A classic example is McCombs and Shaw (1972).

clear. A more competitive marketplace of ideas may make truth more likely to eventually emerge. On the other hand, a more partisan news landscape might skew political beliefs and actions. Which of these effects dominates? How do the effects depend on context? What other more subtle issues should be considered? How can partisan news be studied empirically in a scientific manner?

In this essay, I summarize findings from the economics literature on partisan news and present thoughts on where the literature stands and directions for future work. In the brief literature review,² I take a history of thought approach, discussing how theory and empirics fed off one another and real-world events, and write to a multidisciplinary audience, noting specific ways in which economics work differs from that of other fields, admittedly with a bias toward economists' contributions. In the discussion of potential future work, I take a more critical perspective. I suggest that economics media research make a stronger attempt to contribute to policy analysis (broadly defined), and that economics research can benefit from better incorporating past findings, and future reactions, of media scholars from other disciplines.

THE LITERATURE

THE "LIBERAL MAINSTREAM MEDIA" AND THE SUPPLY–DEMAND FRAMEWORK

Economics research on partisan news was first motivated in part by concerns about a liberal bias in the "mainstream media" in the United States. Scholars from other disciplines had analyzed bias using "content analysis," which involves researcher judgment calls to code the ideological slant of media content. See, for example, D'Alessio and Allen (2000). While this tool is flexible and continues to be useful, it has limitations: it is time- and labor-intensive and not precisely replicable. In the 2000s, a number of economics papers developed more formulaic text analysis methods less subject to these issues.³ Researchers from other fields quickly adopted similar methods; see Groeling (2013) and Puglisi and Snyder (2016) for recent reviews.

The liberal media claim also raised the theoretical question of how such a bias could persist in a competitive market. Sutter (2000) provided an early, informal economic analysis, noting the distinction between forces from the supply side (characteristics of owners, journalists, or advertisers) and the

2. Gentzkow, Shapiro, and Stone (2014) (GSS) and Puglisi and Snyder (2016) are other recent surveys of theory and empirical economics work on partisan media, respectively. Shleifer (2015) also discusses the history of thought on this topic, but has a more limited scope. Strömberg (2015) and other Handbook of Media Economics chapters review related issues in media economics, and Andina-Díaz (2011), Prat and Strömberg (2013), and Sobbrío (2013) are earlier surveys that include coverage of partisan news.

3. Groseclose and Milyo (2005) was perhaps the first and has since been particularly highly cited (and has attracted criticism; see, e.g., Nyhan, 2012).

demand side (consumer preferences). This framework has been useful in much subsequent literature. A famous example is Gentzkow and Shapiro (2010), an empirical analysis of “what drives media slant.” They study US newspapers in 2005 and find that consumer ideology explains much more of the variation in slant than owner ideology.

CAUSES OF DEMAND-DRIVEN BIAS AND PARTISAN SELECTIVE EXPOSURE

Concerns about aggregate liberal bias seemed alleviated, at least somewhat, in the later 2000s. This may have been partly due to research results like those of Gentzkow and Shapiro. However, it was also apparent that media content in reality was becoming more ideologically diverse. Consumers could essentially choose their media slant(s) among online and cable television news outlets (in addition to more traditional network television and print news options). Slant was no longer something imposed by the supply side on a consumer with few options. Researchers observed this trend and were motivated to pursue deeper analysis of causes and effects of consumer demand for partisan news, and in particular, the preference for like-minded news. Scholars from other fields call the resulting segregated news consumption “partisan selective exposure.” Sunstein (2001) sounded an early warning about the potential emergence and socially harmful effects of “echo chambers,” essentially an extreme version of partisan selective exposure in which consumers limit themselves to narrowly like-minded viewpoints.

Scholars from other disciplines generally assumed that the preference for like-minded news is motivated by psychological factors (Hart *et al.*, 2009). In a nutshell, most people feel good when their politics are confirmed, and find it off-putting to be challenged. Economists have incorporated such psychological factors in a number of papers (Mullainathan & Shleifer, 2005). However, perhaps the greater contribution of economists was to also explore the range of more rational forces that could drive like-minded news demand.

In Gentzkow *et al.* (2014), we present a simple game theoretic model to capture key elements from this literature.⁴ The model also serves as the basis for a formal definition of reporting bias, which we taxonomize into two types. It is useful to discuss this model here for a few reasons: to give readers who may be unfamiliar with such modeling a better sense of how it works, to illustrate how important conclusions follow from model assumptions, and to provide a vocabulary for later discussion in this essay. The model consists of the following assumptions:

4. Fang (2014), Oliveros and Várdy (2015), and Perego and Yuksel (2015) are more recent papers that analyze innovative, richer models of rationally demanded bias.

- There are two types of players: news consumers and firms.
- There is an uncertain “state of the world,” either L or R. If L is true, this can be thought of as a situation that (truly) favors a leftist political view, and if R is true, this favors rightists.
- Media firms observe private information on the state (a “signal”) but before doing so, each must announce a “reporting strategy” publicly: a way of transforming the signal into a news report.
- Firms observe their signal, then report news based on their signal and reporting strategy.
- Consumers choose which firm to consume news from, or to not consume news at all, based on the reporting strategies and a private opportunity cost, and, if news is consumed, Bayesian update their prior belief (probability) about each state.
- Finally, each consumer chooses an action (political, such as a vote, or private consumption, e.g., whether to buy organic or conventional food) and receives “payoffs” given her action, the true state, and the consumer’s utility function (preferences).

GSS’s definition of reporting bias is, in words, that strategy x is biased to the right of strategy y if consumer beliefs that R is the true state likely increase when the firm switches from y to x without the consumer being aware of the switch. The definition of left bias is analogous.

The two types of (each) bias are “distortion bias” and “filtering bias.” The former occurs when it is possible for a firm to directly report its signal as the news. Call this the neutral strategy. In this case, no other strategy can increase the (expected) payoff of a consumer who seeks news only for instrumental value, that is, to inform her choice of action. Thus, any strategy biased right or left of the neutral strategy cannot be rationally demanded for instrumental value.

The second type of bias, filtering bias, occurs when signals are more complex than news reports, and so firms must filter private information into simpler news. In this case, there is no strategy that maximizes the payoff of all rational instrumental value-seeking consumers. There may still be a seemingly neutral strategy, but a strategy biased to the right or left of this may actually be (instrumental) payoff-maximizing for some consumers, and thus rationally demanded. Bias in this case is not necessarily “payoff-reducing” for consumers.

To see these ideas more clearly consider a specific example in which there is just one firm whose signal is more complex than the news it can report. Suppose this signal consists of three “subsignals,” each of which is binary and supports L or R, but the news report is limited to a single binary statement (supporting either L or R). A seemingly neutral reporting strategy would

be for the firm to report news supporting L if the majority (two or three) of its subsignals support L, and report news supporting R if the majority of subsignals support R. A strategy in which “R” was reported only if all three subsignals support R would be “biased left” of such a neutral strategy. However, this left-biased strategy could increase the payoff of some consumers, namely, if they have a strong left-leaning utility function. Suppose the action is “vote L” or “vote R” (and suppose also that the vote is meaningful). If a consumer would only rationally switch from (vote) L to R if the evidence supporting this switch was as strong as possible (three R subsignals), then this consumer would prefer the left-biased strategy to the neutral strategy. Thus, rational choice can explain partisan selective exposure (leftists seeking left-biased news; the logic applies to rightists symmetrically). Figure 1 depicts the game tree for each of these two reporting strategies. Chiang and Knight (2011) supports the rationality of consumer interpretation of partisan news.

Groeling (2013) and Puglisi and Snyder (2016) discuss other views on defining and categorizing types of bias. Groeling splits bias into two types, “selection” (bias in stories to report on) and “presentation” (bias in what information to present for a particular story). *Groeling* refers to both of these types of bias as involving distortion, which seems to imply that they cannot be rationally demanded, although GSS’s filtering bias potentially applies to both of Groeling’s types of bias.

The GSS model implies that rational demand for instrumental value cannot explain distortion bias. GSS discuss how distortion bias can be caused by two other demand-side factors: (i) noninstrumental preferences for like-minded news (the “feels good” motive) and (ii) firm reputational incentives (firms may “look good” by distorting news toward what consumers believe is likely true). GSS also discuss how if bias is caused by such reputational motives, bias is relatively likely to be reduced by competition, but demand-side biases (distortion or filtering) driven by other causes tend to become more diverse via competition.

Economists have also contributed to empirical research on consumer preferences for partisan news. Across the social sciences this research has moved away from relying on surveys, and toward data that more directly captures behavior (Prior, 2013). Economics research has been consistent with this trend (Halberstam & Knight, 2014) and has proposed new ways of measuring and interpreting the extent of partisan selective exposure in different contexts. However, the economics literature on this specific topic is limited and the large majority of researchers working in this area come from other fields.

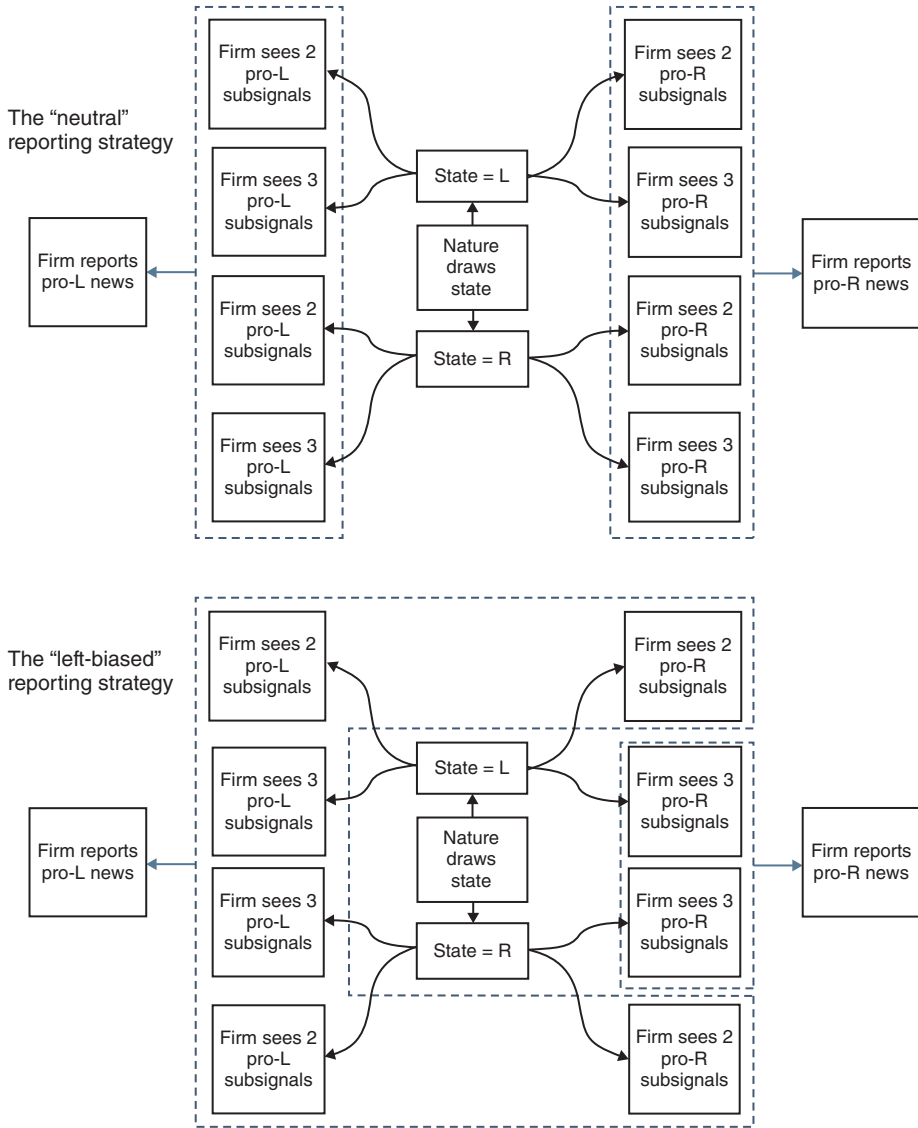


Figure 1 Partial game trees, for example, described in text in which firm observes three binary subsignals and makes one binary report. All events within a dashed box (an information set) are observationally equivalent to consumers (i.e., each event within a dashed box results in the same news report, which is the only new information a consumer can observe before choosing her action). Note the state and subsignals are random variables and occur with probabilities that the game trees omit (probabilities for events that may arise from a given box (node) must sum to one).

MEDIA EFFECTS: THEORY AND EMPIRICS

The effects of various forms of reporting strategies on media consumer beliefs and actions are what ultimately drive “social welfare effects”—the implications for societal well-being. Sometimes, models measure these effects just in terms of consumer and/or producer surplus; often models include political effects (given voter preferences, whether voters elect the optimal candidate and/or politicians take optimal actions, allowing for formalization of “political failure”). In general, theory models imply that supply-driven bias is likely harmful to consumers and society overall, while the effects of demand-side bias are more ambiguous and depend on various contextual factors. Positive effects may be due to rationally demanded filtering bias, cross-checking, and increased engagement of more partisan consumers. Cross-checking and competition of advocates are likely more beneficial when advocates have stronger incentives to search for information than neutral media. Advocate competition is less socially beneficial when “truth” is more ambiguous and difficult to verify (e.g., forecasts for climate in 50 years vs tomorrow’s weather).

Negative effects (of demand-driven bias) may be due to consumers choosing socially suboptimal news due to psychological biases, or preferences for noninstrumental value from news (entertainment or ego confirmation). Choices resulting from such preferences may be individually rational but socially harmful as they neglect positive externalities from more informative news. The engagement and biased processing effects may even go hand in hand, as more biased consumers may be more engaged by biased media. Endogenizing actions by politicians likely exacerbates effects [good ones from more informative media, e.g., Chan and Suen (2009), and bad effects otherwise, as in Stone (2013)].

To go into more depth on how modeling assumptions affect welfare implications, I refer again to the results from GSS. We show that the private welfare effects of demand-driven filtering bias are positive if the cause of bias is a partisan utility function. However, welfare effects are ambiguous if demand for bias is caused by “partisan beliefs”—prior beliefs biased toward one state or the other. Intuitively, ideal reporting is truly subjective in the first case. People with different “values” can be better off with different ways of filtering facts into news. In the second case, as ultimately people share the same goals but disagree on how to reach them, the ideal reporting strategy is not subjective. If preferences for reporting differ, at least some of those preferences must be (objectively) off base. *Noneconomics literature* often refers to consumer demand for biased news as being driven by ideological “attitudes.” It can be unclear to what extent attitudes include inherently subjective preferences (e.g., preferences for apples or oranges) versus beliefs about objective facts (e.g., whether apples or oranges most improve one’s health).

A final contribution of economics is a focus on credible identification of real-world media effects. Much of the prior research depended on lab or survey experiments or considered empirical evidence that, while still valuable, has less well identified causality.⁵ Most economics empirical research uses random, or quasi-random, variation in media exposure in the “field” to identify causal outcomes. Many papers from other disciplines use these methods as well (Arceneaux, Johnson, Lindstädt, & Wielen, 2016) and perhaps even more have used field experiments. DellaVigna and Kaplan (2007) is a key paper from economics on media effects, which indeed reports substantial voting effects caused by the entry of a partisan outlet. Subsequent papers have found results confirming these conclusions and developed them further.

WHERE WE STAND

Summing up very briefly, economists have contributed new empirical methods for analysis of partisan news, and new theoretical frameworks for analyzing the causes and consequences of partisan bias. In particular, we have fleshed out the range of rational forces that may drive demand for bias and the mechanisms by which bias may influence social welfare, and contributed to precision in measurement of media bias and its effects, helping confirm that partisan news effects are real and substantial. Still, it seems fair to say that in economics and beyond we remain unclear on the really big questions: to what extent is partisan media good or bad for society? What can be done about socially harmful aspects of partisan news?

PARTISAN MEDIA EFFECTS: POLITICS AND POLICY

Broadly speaking, if “more partisan” media offered more benefits than costs, we would expect political systems to function better as media outlets grew more partisan. Furthermore, broadly speaking, this does not appear to be the case, at least in the United States: most political scientists would agree the US political system has not fared well in the new era of more partisan media. It is well established that political elites have become more polarized, and political gridlock has increased, in the United States in recent decades (Barber & McCarty, 2015). This suggests that the growth in partisanship of media that has occurred in roughly the same period has, overall, done more harm than good. Bandyopadhyay, Chatterjee, and Roy (2015) discuss examples of similar associations between media and polarized politics from other parts of the world.

5. See, for example, Socolow (2008) for a discussion of the challenges in measuring media effects (and a defense of the strategic sophistication of media consumers).

The most straightforward way that partisan media may have caused the observed polarization of elites is via partisan selective exposure: if voters tended toward like-minded media, and media became more ideological, then this may have ideologically polarized the electorate, causing strategic or sincere polarization of elected officials. Prior (2013) reviews research related to this idea and finds that the evidence supporting it is thin. He concludes that although partisan media may have caused already partisan citizens to become more extreme, most Americans continue to be mostly moderate or indifferent toward politics. Still, there are papers offering direct evidence supporting the link between media and general polarization, including Campante and Hojman (2013), Levendusky (2013), Martin and Yurukoglu (2014), and Stroud (2010).

There are several other mechanisms by which partisan media may have contributed to the negative political trends. First, even if just the tails of the citizen ideology distribution were polarized, this could still have had important political effects. Party activists could exist mainly in these tails and be the ones who apply the key pressure on politicians causing them to take more extreme positions. Arceneaux *et al.* (2016) and Clinton and Enamorado (2014) show that partisan media has indeed caused elected officials to act in a more polarized way.⁶ The economics literature has not analyzed the behavior of party activists as a distinct and important group within the electorate; this may be a fruitful area for future work.

Second, even if the masses' fundamental values were not polarized, beliefs and information may have become more skewed. The literature could certainly dig further into information and knowledge effects of new media (Schroeder & Stone, 2015). Ahler (2014) and Levendusky and Malhotra (2015) are part of a related literature outside of economics presenting related evidence, which claims that citizens are misinformed about (overestimate) growth in ideological differences across the parties.

Third, research on growth in "affective polarization" and "partyism"—that opposing partisans have grown to dislike each other more over time—has found much stronger empirical support (Garrett *et al.*, 2014; Iyengar, Sood, & Lelkes, 2012; Westwood *et al.*, 2015). Lelkes, Iyengar, and Sood (2015) use quasi-random variation in broadband access to show that online media has played a causal role in these trends.

The economics literature (on media or otherwise) typically does not consider the concept of "dislike." While a good portion of economics work on partisan news incorporates behavioral factors, any disagreement occurring in these models seems, well, agreeable. In the variations covered in GSS, news consumers may disagree before getting news due to heterogeneous

6. Bandyopadhyay *et al.* (2015) and Stone (2013) make related theoretical points, showing how media can cause polarized political actions or gridlock without mass polarization.

priors, or disagree after getting news with different slants. However, in neither case would the model imply that voters harbor hard feelings against one another. A natural new direction for the economics literature, empirical and theory, would be to incorporate a broader range of “behavioral” factors, such as affective polarization. The economics theory papers that avoid any behavioral or noninstrumental assumptions often seem to take this modeling approach as a point of pride. As it is harder to explain the existence of slanted news without consumers having a direct preference for slant, a model that avoids such assumptions is more impressive, in a sense. It is important to understand what phenomena can and cannot be explained with different sorts of models. However, of course, we also want our models to be consistent with basic aspects of reality.

To be clear, partisan new media has certainly also had positive welfare effects. Some types of watchdog journalism have improved; examples include the Drudge Report exposing the forgery of documents criticizing George W. Bush’s National Guard service, and “citizen journalist” videos of police violence. Partisan media may do a better job of avoiding distortion in news to appear neutral (Burke, 2009) or uninformative “he-said-she-said” reporting (Chan & Suen, 2009). Many observers point out that US journalism’s embrace of the “ideal of objectivity” in the late twentieth century was an exception, not the rule (with respect to both media around the world, and historical news media in the United States). A careful analysis comparing costs and benefits of partisan news would certainly be a worthwhile, though challenging avenue for future work.

Even if the net effects of a move away from the ideal of objectivity are ambiguous, it is clear that unfettered media markets do not function perfectly and there is a role for public policy. So far, we (in economics and beyond) have not cracked the policy nut. A simple and flexible policy approach with relatively broad appeal, like, for example, libertarian paternalism or Pigouvian taxation, might be ideal. This goal is likely too ambitious, but still worth keeping in mind. Preservation of competition is the closest thing historically to such a general policy principle. The literature supports the importance of competition for avoiding negative impacts from supply-side bias, and this risk is still relevant (Baum & Zhukov, 2015).⁷ Even the Newspaper Preservation Act, which allows two newspapers in the same metropolitan area to collude on pricing to maintain both firms’ viability, requires that the news operations remain separate and competitive. However, at the national level, supporting competition is not what we need policy to do. The national media

7. Historically, a key concern was cross-ownership of outlets across platforms (print, television, and radio), and this is still a concern even with the lower costs of entry online (see, e.g., Cagé, 2015, on the trend of wealthy individuals buying newspapers), though it is also possible consolidated ownership can result in more differentiated content (George, 2007).

market is plenty competitive, and the political problems seem to exist despite, or perhaps because, of this.

A number of other policy options have been considered. The Fairness Doctrine is still regularly discussed. It is almost surely politically infeasible and its value is questionable regardless (Hazlett & Sosa, 1997). Public funding of media is another commonly discussed policy, with mixed real-world success. An obvious concern is government capture or the perception thereof. Another is lack of incentives to maximize audience size and social benefits.

A more radical option sometimes mentioned is Canada's "prohibition on falsity" in news (On The Media, 2011). This might appear politically infeasible in the United States given strong protection of political speech; however, numerous states have laws against false political ads that have been shown to reduce the incidence of misleading advertising (Zhang, 2015). Regardless, this type of policy is worthy of study, along with other variations on policy used across nations. For example, is there a correlation across nations between freedom of speech protection and polarization in the new media era?

An approach that is likely even more radical and less feasible would be to apply Pigouvian taxation to externalities from political information: tax actions with negative externalities (perhaps consumption of certain types of media known to report misleadingly partisan news) and subsidize actions with positive externalities (demonstration of political knowledge or even tolerance?). Perhaps some type of field experiment could be conducted to examine the effects of such policies?

Cagé (2015) makes the case for a creative but reasonable policy proposal: a new type of organization specific to media, akin to universities with both nonprofit and private sector elements. This proposal is meant to address the issue of declining revenue and quality of the press in general, and not partisanship, in particular. However, perhaps there is a link—maybe biased news is cheaper to produce than neutral news, or journalists prefer to be neutral, and only resort to slant under competitive pressure? (Cagé argues something similar is the case for entertainment and soft news.)

Academic research should not be bounded by practical constraints, but should take them into consideration. Given political constraints, it might be more productive for the literature to provide recommendations, or even just potentially practical findings, for conscientious media consumers. For example, can we tell consumers what effects partisan news consumption has on stress and mental health? Or on social outcomes, such as diversity and number of friends, and family relationships, or overall happiness? Can the literature advise on technologies, or even heuristics, that consumers could use to improve the neutrality or partisan diversity of news they obtain (for those who aspire to do this)? How can we enlighten those of us who do not

(to help address affective polarization)? Are there techniques informed by science that we can better use to de-bias others in casual conversation? We all know the importance of social pressure, but its power can still surprise us, especially in the absence of financial incentives [e.g., DellaVigna, List, Malmendier, and Rao (2014), or the emphasis of Kahneman (2011), on the importance of water cooler gossip]. Can we make consuming one-sided partisan news, or holding biased partisan views, or being intolerant or hostile to opposing partisans, socially unacceptable—that is, uncool, or just politically incorrect?

This literature may also be of service for conscientious journalists, or those who train them. Can we provide more clear guidance on the fundamental issue of the ideal of objectivity? What other research questions could we address of practical value to journalists? Can feedback about ideology or accuracy to journalists affect the quality of their output? Field experiments and text analysis are likely the best tools for making progress on these and similar questions.

METHODS AND DISCIPLINES

It will not shock anyone if I report that papers written by economists tend to cite few (if any) papers from other fields, and those written by noneconomists tend to neglect our work. This focus on papers from one's home discipline is at times reasonable. However, a slant in the way we cite work seems less appropriate for papers intended to enhance understanding of a question that crosses disciplinary boundaries.⁸

Are authors unaware of the range of relevant work from other disciplines? Or do we cite minimal research from other fields because its value is underestimated? Or because the value is judged correctly to be not that high? I am not foolish enough to try to answer these questions, but think they are worth considering for scholars from all fields.

In fact, I think that citation by high-quality surveys from other fields is a useful goal for economists to strive for in our work. Such citation is *prima facie* evidence that the question addressed is important, and that the results are compelling and clearly communicated. Most economics papers that have been widely cited outside of economics are empirical and use text analysis,

8. I have already mentioned several examples of findings that seem underappreciated outside their home discipline; another example is the *third-person effect*, referring to the tendency to overestimate media influence. This is a widely used term and concept outside of economics (Davison, 1983), but not mentioned in any economics paper to my knowledge. Furthermore, while reviewing the proofs for this essay I became aware of Knobloch-Westerwick (2014), which seems to exemplify this issue. Her book cites numerous studies of selective exposure—some of which focus on information—that have been neglected by economics, while also largely neglecting the more recent, closely related work by economists.

large data sets, or a clever identification strategy. Theory papers from economics (e.g., the work on rational demand for bias), on the other hand, have been more ignored outside of our field. What could make our theoretical results more compelling to noneconomists? Exploring dynamically and/or socially richer models, which do not necessarily have analytical solutions (e.g., agent-based models)? Or perhaps the Bayesian framework and theory results will be appreciated across fields in good time? Or perhaps questions addressed by economic theory papers are not of as broad interest as those of empirical papers? Again, I do not offer answers here, just questions.

CONCLUDING REMARKS

Recent developments in the media landscape have been great fodder for research but perhaps not great for social welfare. Media failure may directly cause political failure with enormous implications. Economists and scholars from other disciplines have explored a wide range of theoretical issues and made progress with empirical analysis in understanding reality. Going forward, I suggest a focus on work that will be of interest across disciplines and/or be policy relevant, and that we make a better effort to be aware of, and learn from, work across disciplines. We have yet to “save the media” (as called for by Cagé). However, we should not give up hope that we can help to do so.

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