Justin H. Gross, Cosma Rohilla Shalizi, and Andrew Gelman

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In *Left Turn*, Groseclose concludes that, in a world without media bias, the average American voter would be positioned at around 25 on a 0-100 scale, where 0 is a rightwing Republican and 100 is a left-wing Democrat. In this world, a balanced media might include some TV networks promoting the view that abortion should be illegal under all circumstances and subject to criminal penalties, whereas others might merely hold that Roe v. Wade is unconstitutional; some media outlets might support outright discrimination against gays, whereas others might be neutral on civil unions but oppose gay marriage; and on general politics there might be some newspapers that endorse hardright Republican candidates (0 on Groseclose's 0–100 scale) whereas those on the left would endorse positions near those currently held by Senator Olympia Snowe. But instead of this, Groseclose must endure a world where he estimates the average voter falls around 50, with all that follows from this, and he attributes this difference to media bias.

Groseclose sets up this stirring climax by formulating and estimating three models. The first model, from Groseclose and Milyo (2005), is an ideal-point model that puts media organizations and members of Congress on that 100-point scale, based on how often they refer to various research and advocacy organizations.¹ The second infers the political positions of voters in different districts based on how many of them voted for Obama and the estimated positions of their members of Congress. The third model, new to Left Turn, is a causal model of how media influence the positions of voters. Groseclose's claims about what our country would look like if it weren't for media bias thus rest on a multi-stage analysis. (Figure 1 depicts his estimation strategy.) He estimates latent quantities-e.g., how Americans would vote if their views were not distorted by the media—in terms of other latent, estimated quantities, such as the political location of media organizations.

What Is Media Bias?

Groseclose relies heavily (but perhaps unwittingly) on an equivocation about "bias": is the media biased when it *inaccurately represents the world*, or when it *fails to reflect*

Justin H. Gross is Assistant Professor of Political Science at the University of North Carolina at Chapel Hill. Cosma Rohilla Shalizi is Assistant Professor of Statistics at Carnegie Mellon University. Andrew Gelman is Professor of Statistics and Political Science and Director of the Applied Statistics Center at Columbia University. Online appendices and supplementary references are available at http://www.stat.cmu.edu/~cshalizi/leftturn/.

the audience's (natural) opinions? These are, we might say, respectively direct and indirect sorts of bias, and they differ substantially.

The title, marketing, and much of the content of the book invoke the former notion, and the complaint that mainstream media are biased in this way against right-of-center political actors and causes has been taken as self-evident among politically-engaged American conservatives since at least the publication of Edith Efron's *The News Twisters* in 1971.³ The accusation is that the mainstream media, while claiming neutrality, are really very liberal in personal ideology *and* in presentation of the news.

Such bias could (in principle) be measured in direct, though labor-intensive, ways: counting how many Democrats and Republicans, or liberals and conservatives, appear on op-ed pages or TV interviews; tabulating the frequency of political sales terms such as "death tax" or "Operation Iraqi Freedom" or "Affordable Care Act," compared to more neutral terms—"estate tax" or "Iraq war" or "the Obama health care plan"; measuring the prominence of positive or negative economic stories. (Is the bad news always on page A1 and the good news on page D14? Does it depend on which party is in the White House?⁴) All of these would directly measure actions that directly send out messages that could influence people.

But as in Groseclose and Milyo (2005), Groseclose, in *Left Turn*, uses a highly indirect measure of bias: citations to research and advocacy organizations. The operational meaning of "bias" here is that media are biased not if their content provides a systematically distorted estimate of the *news*, but a systematically distorted estimate of the *audience's opinions*. Groseclose, in fact, defines "absolute" bias as the distance between media slant and the "center of American political views"—the latter being found by yet another estimation. In practice, for Groseclose, media bias is not a failure of *objectivity*, but of *intersubjective agreement*.

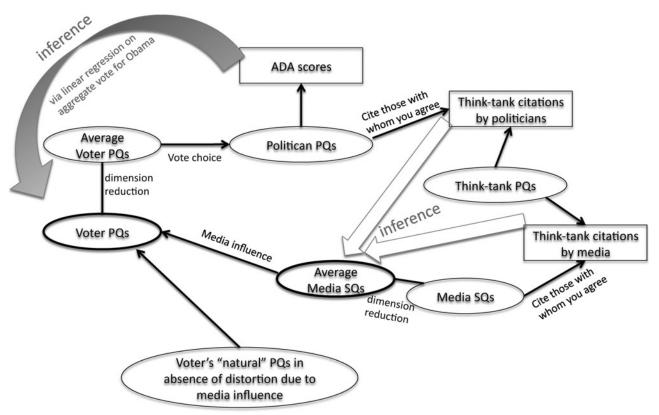
Bias, in Groseclose's operational sense, need not imply bias in the usual sense; the matter is analogous to the difference between statistical lack of diversity in a firm's members and active discrimination. Just as it takes more than showing that the employees do not reflect the population at large (in terms of age, gender, race, etc.) to demonstrate a practice of discrimination, a lack of representativeness in the media does not imply that they distort the news.

None of this is to say that Groseclose's claims are definitely wrong, just that any interpretation of them is inherently much more fragile than direct measures of bias in communication. One reason the criticism from John T. Gasper is so valuable is that it goes directly to the data rather than simply assuming that a concordance of references constitutes a political slant.⁵

A World in Which Only Media Can Be Biased

In Groseclose's model, all the bias comes from the mass media, not from other political actors. Assume, for

Figure 1
Groseclose's estimation strategy



Note: Variables in boxes are observable; variables in ellipses are latent and estimated. (The causal network implied by Groseclose's models is subtly different.) PQ and SQ stand for "political quotient" and "slant quotient," respectively.

argument's sake, that one may meaningfully contemplate the distribution of voters' ideologies in isolation. For Groseclose, this means considering what our collective views would be in the absence of left-leaning media. This holds the media to different standards than other parts of the measurement model. Consider legislators and advocacy organizations, both crucial to Groseclose's estimates of bias. Voters' aggregated ideologies are proxied by the positions of their elected representatives and senators. Legislators' votes on a handful of bills locate them in a latent (one-dimensional) ideological space. Citations of advocacy organizations by these legislators, in turn, place the organizations within that space. Finally, media sources are situated in the space based on their own citations of the organizations (refer to figure 1). Even if there were no concerns about the propagation of measurement error across these various steps, a crucial flaw in Groseclose's logic is that legislators and advocacy organizations are not neutral; their distributions may have just the sort of "bias" he attributes to the mass media.

Again, we are not asserting that the distributions of legislators and advocacy organizations are unrepresenta-

tive.⁶ But Groseclose *assumes* that these distributions are representative, so that (for instance) slightly left-of-center politicians aren't driven to cite centrist advocacy organizations as the least repellent of an unpalatable lot. This is related to a further striking feature of Groseclose's models, which is that they have only four kinds of actors: voters, media outlets, advocacy organizations, and politicians. Every other sort of institution or organization which might influence political views—schools, the clergy, and the public relations industry, to name just three—has no explicit role in the models. They are thus presumed to be either ineffective, or to have no *systematic* effects and so be absorbed into the error terms.

These are very strong modeling assumptions, and the evidence in their favor is unspecified.

Media Bias as Part of the Political Process

Stepping away from the details of Groseclose's argument, it would make some sort of sense if the news media generally fell on the left side of the political spectrum. Whether this is good or bad is another question, but newspapers generally seem to position themselves on the side of the

underdog. Consider, for example, the slogan that a newspaper should "comfort the afflicted and afflict the comfortable." Another way to think about media bias is to think about the communication industry as a whole. We might imagine that "journalism," taken as a whole, leans left, while "public relations," taken as a whole, leans right. And if most of the news media in a country moved from journalism to public relations (as in Berlusconi's Italy), we imagine it could make a difference in the country's politics.

The question of what public opinion would be like if journalists expressed views comparable to the average American, while interesting, could perhaps be combined with similar questions such as what would US politics be like if there were no public relations industry, or what would US politics be like if campaign contributions were given equally to the left and the right, or what would US politics be like if religious and military leaders were, on average, in the political center.

Our point is this: Thinking of all the different institutions affecting political attitudes, it makes a kind of *a priori* sense to suppose that journalism in particular is on the left, while religion (for instance) has been on the right. There are lots of exceptions, from Martin Luther King on one side to Silvio Berlusconi on the other, but our first guess would be that journalism might be one of the left-leaning institutions in the US. And it makes sense for Groseclose, as a conservative media analyst, to want to shift journalism to the right, just as, from the other direction, a liberal businessman might want to persuade businesses to move in the other direction.

Policy and politics are multidimensional. For example, Slate magazine notoriously polled its staff before the 2008 election and found 55 out of 57 supporting Obama. On the other hand, a Slate writer (who we would guess is an Obama supporter) wrote, "If we can find other ways of overcoming the simmering resentment that naturally accompanies wage cuts, workers themselves will be better for it in the long run." The "we" at the beginning of the sentence does not include the "workers" at the end of the sentence. This is just an anecdote (n = 1, and not a randomly sampled n = 1 at that) but it does reflect a general attitude in the big media, which by default tend to take the perspective of the employer or rich person rather than the employee or poorer person; think of the famously obnoxious lifestyle pieces in The New York Times. The multidimensionality of political attitudes should not discourage us from studying bias, but it does complicate matters.

In the US context there is arguably an asymmetry in political bias, with reporters who are Democrats—consistent with Groseclose's claims, a survey a few years ago found that twice as many journalists identify as Democrats than as Republicans—biasing their reporting by choosing which topics to focus on, and Republican news organizations (notably Fox and other Murdoch organizations) biasing in the other direction by flat-out attacks.

We have never been clear on which sort of bias is more effective. On one hand, Fox can create a media buzz out of nothing at all; on the other hand, perhaps there's something more insidious about objective news organizations indirectly creating bias by their choice of what to report. But we have long thought that this asymmetry should inform how media bias is studied.

Counterfactuals

The new scholarly contribution of the book, over the QJE article,⁸ is the model of media influence presented in chapter 20 (lead up to by chapters 18–19, and used thereafter). This is a causal model, used to calculate many counterfactuals. Model-based counterfactual inference is of course a legitimate part of science,⁹ but one must ask why this particular model, and to this the book has no good answer.

Groseclose's model is that the average opinion of a population is a convex combination of the average of their natural opinions and the average of the media to which they are exposed; the relative weight of the media is λ . We have not found any argument by Groseclose for the convexcombination model, in the book or elsewhere. A static model of influence or persuasion is already a great simplification of a dynamic process. Substantively, the phenomenon of group polarization shows that discussion among like-minded individuals often results in the average view of the group becoming more extreme—sometimes more extreme than the initial views of any member. 10 This finding is robust and has been demonstrated in both a wide range of experiments and in high-stakes situations such as judicial panels.¹¹ This is incompatible with any convexcombination model of influence, so Groseclose must assume that media influence is somehow distinctly different from interpersonal influence, though this makes his use of signaling-game findings odd.

The convex-combination model for average opinions must be an aggregation of individuals' beliefs. If the individual-level process is also a convex combination model, then very serious issues of aggregation arise. (Refer to the online appendix for details on what follows.) For the aggregated and individual models to coincide, voters must not be influenced by politicians or by each other, or chose what media they consume, or trust or attend to some media sources more than others. Violating the influence restrictions, in particular, can render the whole model unidentifiable. The convex-combination model could of course hold as an emergent property of the group, not displayed by its members, but then Groseclose could not use of individual-level experiments (like the signaling game) to estimate its parameters.

Groseclose wishes to evaluate the influence of the national media on national elections. His data sources for the model do not address this. He thus needs λ to be at least roughly "projectible" across many contexts, say the US in the past two decades. He goes beyond this to posit

that λ is a universal constant, comparable to the constant in Newton's law of gravitation. He does not share why he thinks this. It would not follow from aggregation without special assumptions, but it would be even more mysterious as an emergent property.

The fundamental problem with the use of the convexcombination model is that Groseclose makes no effort to *check* his model of media effects, i.e., to systematically compare it to data and show that departures from its predictions are unsystematic and effectively noise. Once again, it is fine to use models to infer counterfactuals, but then one needs to look into possible problems.

Groseclose does compile estimates of λ implied by different data sources. Under his assumptions, these should all be compatible; he does not try to check this, even roughly by finding standard errors. Indeed, the experiment by Gerber et al., which Groseclose praises as exemplary, yields a nonsensical estimate of λ , greater than 1. Groseclose attributes this to sampling noise, but does not back this up by calculating any measure of uncertainty. It might be more useful to consider an out-of-bounds estimate as a warning of a problem with the model.

Reception of the Book

Political observers of all ideologies recognize the importance of news media in influencing public opinion. One reason we believe that the Groseclose and Milyo work has been taken so seriously (with over 200 citations so far in Google Scholar) is that it was a relatively sophisticated quantitative take on an important problem.

Consider, for example, the comments by economist Steven Levitt (who has collaborated with Groseclose in the past): "[Left Turn] is not, however, a right-wing rant by any means. Rather, it is a carefully researched and amusingly written book by a highly regarded academic . . . liberals will not like what Groseclose has to say, but that is all the more reason why liberals should read his book." 12 Consider what is left unsaid: Levitt does not write that the book's claims are scientifically proven or even substantively correct, nor does he endorse Groseclose's main conclusion, that, without media bias, the average American would think and vote like Fox News personality Bill O'Reilly. Rather, Levitt writes that the book is "carefully researched," which praises the process and not (necessarily) the product. Similarly, on a blog discussion of the Groseclose and Milyo article one of us expressed some concern about the methodology but wrote, "I'm a bit more positive than [Nyhan] is about the paper, I think because the problem of studying media bias is tough, and I'm impressed about what Groseclose and Milyo did manage to do."13

Academic communities sometimes hold our writings to high levels of rigor (internal validity) but a low level of correspondence to reality (external validity). Sometimes this is even appropriate, as in speculatively exploring the implications of hypotheses that might later be refined into explanatory theories; on such a basis it seemed reasonable to vaguely endorse Groseclose and Milyo's efforts as published in 2005 without having to believe their conclusions. Emphasizing rigor over accuracy becomes a failure-mode of scholarship, however, when internal validity is *mistaken* for external validity, and a rigorously worked-out conjecture for the correct explanation. ¹⁴ Misconceptions that arise in this way can be incredibly tenacious, precisely because of their scholarly form. ¹⁵ In *Left Turn*, Groseclose makes the commendable effort to connect the dots and think about the political implications of his work. That's fine, but then we find ourselves less inclined to be charitable about flaws in the research.

"Carefully researched and amusingly written" can be enough for an academic article, or for a popular book, but it does not suffice for a popular book that purports to provide scientific proof of a controversial claim.¹⁶

Conclusion

In moving from an academic journal to a popular work, Groseclose has added a partisan, even rabble-rousing, dimension to his work. This political activism is appropriate given the importance of Groseclose's claims: if the biased media are indeed moving the average American from the position of Bill O'Reilly to that of Joe Lieberman, this is a big deal. There is a long tradition of left-of-center social scientists (recently, for instance, William Julius Wilson and Paul Krugman) expressing strong recommendations along with their research findings, and Groseclose can certainly do likewise from the other side. We have no criticism of Groseclose's care in describing his own political positions.¹⁷

In addition to its crowd-pleasing rhetoric, *Left Turn* also aims to be a serious work of political science. In particular, it aspires not just to be a theoretical exploration of the consequences of certain hypotheses ("what would happen if the media were really, really biased?"), but an accurate explanation of why, in fact, America has the politics it does. As noted above, the book relies heavily on a set of theoretical models that are multiple steps removed from actual media bias. Ultimately the work must be judged not (just) by whether its proposals are normatively compelling, or by whether its hypothetical speculations are internally coherent, but on the fit of its models to political reality.

Notes

- 1 We think "advocacy organization" is a more accurate label than "think tank" for organizations like the American Civil Liberties Union, National Rifle Association, etc.
- 2 For the purpose of this discussion, we follow Groseclose in hypothesizing the existence of natural opinions that people would hold if they were exposed only to unbiased media.

- 3 Efron 1971.
- 4 See for instance Niven 2002, which includes comparison of unemployment coverage for presidents and governors of opposite parties, and crime rate coverage for governors.
- 5 See Gasper 2011.
- 6 Though it is easy to come up with accounts of why they might be unrepresentative. Arguably, much of the proliferation of think tanks occurred in direct reaction to the perception among conservatives that academia, as well as the media, had been hostile to their views; Abelson 2002. Analogously, the distribution of legislative candidates may be filtered by the need to finance campaigns through large donations.
- 7 Fisman 2011.
- 8 Groseclose and Milyo 2005.
- 9 See Morgan and Winship 2007.
- 10 Sunstein 2002, 2009.
- 11 Sunstein 2009.
- 12 Levitt 2011.
- 13 Gelman 2007.
- 14 Cf. Rogeberg and Melberg 2011.
- 15 Boudon 1986/1989, Hamilton 1996.
- 16 We agree with Levitt that *Left Turn* is well-written; unfortunately the cleanest parts of the writing correspond to the simplest, most speculative, parts of the model (for example, Groseclose's assertion that individuals' political attitudes are a weighted average between media positions and voters' underlying true ideologies), while the more complicated, data-based parts of the analysis are described less clearly. We refer readers to Gasper 2011, who is admirably clear on the details of the data behind the analysis.
- 17 However, we do think Groseclose may have gone over the line as a partisan advocate when, during a Fox News interview, he said that the left-leaning organization Media Matters is "violating the spirit of the law" in doing political advocacy while being classified as a tax-exempt group under IRS Code Section 501(c)(3). Apparently, though, many conservative educational groups claim this tax exemption as well, including the Heritage Foundation, Cato Institute, American Family Association, and Family Research Council. If Media Matters is violating the spirit of the law, so are all these other groups. Groseclose also misattributed to Media Matters a headline of a critical article that actually appeared on the website of the Center for American Progress.

References

Abelson, Donald E. 2002. *Do Think Tanks Matter?*Assessing the Impact of Public Policy Institutes. Montreal: McGill-Queen's University Press.

- Boudon, Raymond. 1986/1989. *The Analysis of Ideology*. Trans. Malcolm Slater. Cambridge, UK: Polity Press.
- Efron, Edith. 1971. *The News Twisters.* Los Angeles: Nash Publishing.
- Fisman, Ray. 2011. "Raises Don't Make Employees Work Harder." *Slate.* March 18. (http://www.slate.com/articles/business/the_dismal_science/2011/03/raises_dont_make_employees_work_harder.html), accessed March 19, 2011.
- Gasper, John T. 2011. "Shifting Ideologies? Reexamining Media Bias." *Quarterly Journal of Political Science* 6(1): 85–102.
- Gelman, Andrew. 2007. "Measuring Media Bias." May 8. (http://andrewgelman.com/2007/05/measuring_media/), accessed May 8, 2007.
- Groseclose, Tim, and Jeffrey Milyo. 2005. "A Measure of Media Bias." *Quarterly Journal of Economics* 120(4): 1191–237.
- Hamilton, Richard F. 1996. *The Social Misconstruction of Reality: Validity and Verification in the Scholarly Community.* New Haven: Yale University Press.
- Levitt, Steven D. 2011. "Tim Groseclose's New Book on Liberal Media Bias." Freakonomics: The Hidden Side of Everything. July 27. http://www. freakonomics.com/2011/07/26/tim-grosecloses-newbook-on-liberal-media-bias/, accessed July 28, 2011.
- Morgan, Stephen L., and Christopher Winship. 2007. Counterfactuals and Causal Inference: Methods and Principles for Social Research. New York: Cambridge University Press.
- Niven, David. 2002. *Tilt? The Search for Media Bias.* Westport, CT: Praeger.
- Rogeberg, Ole, and Hans Olav Melberg. 2011. "Acceptance of Unsupported Claims about Reality: A Blind Spot in Economics." *Journal of Economic Methodology* 18(1): 29–52.
- Sunstein, Cass R. 2009. *Going to Extremes: How Like Minds Unite and Divide.* New York: Oxford University Press.
- ------. 2002. "The Law of Group Polarization." *Journal of Political Philosophy* 10(2): 175–95.