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In 1986, the US Supreme Court declared political gerrymandering *justiciable* -- which means that a plaintiff can ask the courts to throw out a legislative redistricting plan if the plan treats one of the parties unfairly. However, since then, political gerrymandering has never been *justished* (OK, that’s my word!) -- meaning that no plan has ever in fact been thrown out, nor has the Court established the standard that redistricting plans must meet.

So that was 1986. What was happening in 1987? Well, the most important thing going on then from my point of view is that I really wanted a job. And the university down the road gave me an interview and the chance to give a job talk.² So I talked about an article to be published that year in the *American Political Science Review* with my graduate school buddy, Robert Browning.³ In that article, we proposed a mathematical standard for partisan fairness, and a statistical method to determine whether a redistricting plan meets that standard. We called the standard *partisan symmetry*.

I’m proud to say that, as it has turned out, since our article and my job talk, virtually all academics writing about the subject have adopted partisan symmetry as the standard for partisan fairness in legislative redistricting.

Then, a little more than a decade ago, the Supreme Court actually said in an opinion, hey you academics out there (I might be paraphrasing!), if there were some standard, which you all agreed on, we’d love to hear about it. So that led me to think, its job talk time again!

So in the next redistricting case that reached the Court, my friend Bernie Grofman and I, along with a few others, filed an amicus brief telling the court all about partisan symmetry.⁴ By that time, partisan symmetry was not merely the near universally agreed upon standard among

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² Thanks to the members of the search committee, Jim Alt, Mo Fiorina, and Bob Putnam!

³ Gary King and Robert X Browning. 1987. “Democratic Representation and Partisan Bias in Congressional Elections.” *American Political Science Review*, 81, Pp. 1252–1273. Copy at <http://j.mp/2n5Y11v>

⁴ Gary King, Bernard Grofman, Andrew Gelman, and Jonathan Katz. 2005. “Brief of Amici Curiae Professors Gary King, Bernard Grofman, Andrew Gelman, and Jonathan Katz in Support of Neither Party.” U.S. Supreme Court in *Jackson v. Perry*. Copy at <http://j.mp/2gw1W1R>.

academics; it had also become the standard used by most expert witnesses in litigation about partisan gerrymandering. In fact, in many cases, including the one for which we filed the brief with the Supreme Court, experts on *both* sides of the same cases appealed to partisan symmetry.

The Supreme Court explicitly discussed our brief in three of its opinions, including the plurality opinion. All discussions by the justices in their opinions of our brief, and the partisan symmetry standard, were positive. It appeared that, if a redistricting plan were ever overturned, the standard adopted by the Court would have to involve partisan symmetry. But the justices in that case did not go so far as to overturn the redistricting plan before it, or to explicitly adopt a standard for future cases.⁵

Also since 1987, data on voters has gotten better. The science has advanced. Statistical methods used to determine whether a plan meets the standard have improved. With high accuracy, we can now determine whether an electoral system meets the partisan symmetry standard after a set of elections, after just one election, or, without much loss of accuracy, before any elections have been held at all. These methods have been rigorously tested in thousands of elections all over the world. The standards are clear and the empirical methods are ready.⁶

Now along comes a new Supreme Court case, *Gill v Whitford*. With some other colleagues I filed a new brief in that case, reminding justices about partisan symmetry and clarifying some other issues.⁷ The case hasn't yet been decided but, judging from the oral arguments last month, partisan symmetry is again a central focus. By the way, I highly recommend listening to the oral arguments; they were remarkably sophisticated and intense, quite like a high level seminar at a

⁵ Bernard Grofman and Gary King. 2008. "The Future of Partisan Symmetry as a Judicial Test for Partisan Gerrymandering after LULAC v. Perry." *Election Law Journal*, 6, 1, Pp. 2-35. Copy at <http://j.mp/2ow4pQ8>

⁶ Gary King. 1989. "Representation Through Legislative Redistricting: A Stochastic Model." *American Journal of Political Science*, 33, Pp. 787-824. Copy at <http://j.mp/2o46Gkk>; Andrew Gelman and Gary King. 1990. "Estimating the Electoral Consequences of Legislative Redistricting." *Journal of the American Statistical Association*, 85, Pp. 274-282. Copy at <http://j.mp/2nRBB00>; Andrew Gelman and Gary King. 1994. "A Unified Method of Evaluating Electoral Systems and Redistricting Plans." *American Journal of Political Science*, 38, Pp. 514-554. Copy at <http://j.mp/2oT1ZqA>; Stephen Ansolabehere and Gary King. 1990. "Measuring the Consequences of Delegate Selection Rules in Presidential Nominations." *Journal of Politics*, 52, Pp. 609-621; Gary King. 1990. "Electoral Responsiveness and Partisan Bias in Multiparty Democracies." *Legislative Studies Quarterly*, XV, Pp. 159-181. Copy at <http://j.mp/2o4k5Jc>; Andrew Gelman, Jonathan Katz, and Gary King. 2004. "Empirically Evaluating the Electoral College." In *Rethinking the Vote: The Politics and Prospects of American Electoral Reform*, edited by Ann N Crigler, Marion R Just, and Edward J McCaffery, Pp. 75-88. New York: Oxford University Press. Copy at <http://j.mp/2ovY86M>.

⁷Heather K. Gerken, Jonathan N. Katz, Gary King, Larry J. Sabato, and Samuel S.-H. Wang. 2017. "Brief of Heather K. Gerken, Jonathan N. Katz, Gary King, Larry J. Sabato, and Samuel S.-H. Wang as Amici Curiae in Support of Appellees." Filed with the Supreme Court of the United States in *Beverly R. Gill et al. v. William Whitford et al.* 16-1161 . Copy at <http://j.mp/2iJAMZl>.

leading university. (Although beware, and much to my chagrin, all references to “Professor King’s brief” in the oral arguments were to the brief I filed a decade ago, with no mention of the one I filed in this case!)

But let me tell you now about partisan symmetry. How it is really simple. And why you should support it too. A good example comes from the case presently before the Court. At issue is a redistricting plan passed by the state of Wisconsin in 2011.

In the 2012 election, Republicans received 48% of the votes statewide and, because of the way the districts were drawn, received more than 60% of the seats in the state assembly. It may seem strange that the Republicans received a minority of the votes and a majority of the seats, but strange doesn’t make it unfair. What makes it unfair -- according to our partisan symmetry standard -- is the next election in this state: In 2014, the Democrats happened to also have a turn at receiving about 48% of the votes and yet, in that perfectly symmetric voting situation, the Democrats only received 36% of the seats. Moreover, we know from considerable scholarship in political science that this is not going to change: In all likelihood, no matter how many elections are held where the Democrats happen to receive about 48% of the votes, they aren’t going to come close to 60% of the seats -- as long as the redistricting plans remain unchanged. That’s unfair. And the reason it is unfair is because it is asymmetric.

This is obviously a dramatic Republican gerrymander, clearly hurting the Democrats. But this is not a partisan issue. We’ve analyzed thousands of elections and have plenty of examples where the Democrats control the redistricting process and do just as much damage to the Republicans.

To be clear, any translation of votes to seats is fair -- as long as it is symmetric. For example, some states require redistricters to draw plans that make competitive elections likely -- so 52% of the vote might produce 75% of the seats rather than say 55% -- which is fair so long as the other party would also get 75% of the seats when they also happen to get 52% of the vote.

Other states require redistricters to draw plans that favor incumbents (perhaps so that members of congress from their state will have more seniority and thus influence), which will yield a result closer to “proportional representation,” with seat proportions closer to vote proportions.

In fact, I think I can convince you that you have already invented a symmetric electoral system when you go out to dinner with a group and need to choose a restaurant. The decision rule most people choose is called the *unit veto* system whereby any one person can veto the outcome. This decision rule is fair because it is symmetric -- it isn’t only Bob or Sally (or you!) who can veto the choice; it is *any* member of the group. This is an extreme system, one we probably wouldn’t

choose for electing members of a legislature, but it is one of the numerous possible symmetric and thus fair electoral systems.

The point is not only that partisan symmetry is the obvious standard for a fair electoral system. It is also that, if the Court adopts partisan symmetry, it will still leave considerable discretion to the political branches in each state, something that the Court has historically seen as essential.

Partisan symmetry leaves redistricters lots of other types of discretion in drawing districts as well. One is compactness, which many states and federal law require. The paper I wrote with my graduate students, Aaron Kaufman and Mayya Komisarchik, and distributed at this event provides a single measure of compactness that predicts with high accuracy the level of compactness any judge, justice, or legislator sees in any district.⁸ There are also criteria based on maintaining local communities of interest, not splitting local political subdivisions, having equal population, not racially gerrymandering, and many others. Partisan symmetry may be related to some of these in some states but the standard does not absolutely constrain any one of these criteria.

In fact, a huge number of other factors are also chosen by redistricters, most of which no court, constitution, or legislature has ever tried to regulate, and few of which have been written about. Moreover, these other factors could not be more important to those responsible for redistricting. None are constrained by partisan symmetry.

Here's an example, along with how I came upon it. To learn about redistricting and to obtain access to data, I occasionally sign on as a statistical consultant. I estimate the deviation from partisan symmetry for proposed redistricting plans, determine the degree of racial bias, compute compactness, among other things. During this process, one of the legislators was raging mad at the proposed plan, just fuming. Well, one of things I do whenever I'm near partisans, and have access to data, is to compute the probability that they will win the next election. It turns out these predictions, which political scientists make all the time, are straightforward and highly accurate. Knowing these predictions helps reveal the motives and interests and desires of most everyone, and so they can be clarifying. (And don't judge: no matter how noble the goals of politicians, if they don't first attend to their own reelection, they won't be able to do anything else.)

So I looked up my forecasts for this apoplectic legislator and said, "what are you upset about? You're going to win this election with 75% of the vote." At that point, he was pacing and insisting, "Look at the plan, look at my district!"

⁸ Aaron Kaufman, Gary King, and Mayya Komisarchik. 2017. working Paper. "How to Measure Legislative District Compactness If You Only Know it When You See it". Copy at <http://j.mp/2u9OWrG>

So I said, “I’m looking. You’re going to be reelected and have a job. What do you want? 85% of the vote? What is the big deal?” He then explained, “Look at this line,” pointing to one of the boundaries of his district. “Do you see where it excludes this little area and then continues?” I nodded and he continued, “That’s my kids’ school. And this? That’s where my wife works. And this? That’s my mom’s house!” He then pointed to the map on the wall of the entire state and said “Previously I had a nice compact district where I could drive to see any constituent. Now the district is splayed halfway across the state, and it will take me all day flying to get anywhere! They’re just trying to annoy me. They’re trying to get me to retire!”

And they *were* trying to get him to retire. Indeed, we looked into it -- systematically, across many elections, and many redistricting plans.⁹ It turns out that, during redistricting, incumbents are much more likely to retire, and that causes the partisan division of seats in the legislature to be more responsive to changes in voter preferences, at least compared to no redistricting. Redistricting is a nasty process, probably the most conflictual form of regular politics this country ever sees, with a good number of fist fights, examples of hardball politics, and many really unhappy bedfellows. Imagine if some guy you don’t know in a basement playing with maps once a decade could get you fired! As a result, legislators often prefer to retire over the risk of getting drawn into a district with another incumbent, perhaps having to run against your friend, or ending a successful career being humiliated at the polls in a new district dominated by opposition party voters.

In fact, lack of redistricting doesn’t mean no change. Voters move, die, come of age, immigrate, emigrate, and come to the polls in different numbers. Over time, without redistricting, nothing constrains the electoral system from moving far from partisan symmetry. Some states become horribly biased on their own, without moving district lines.

In contrast, if you control a state’s redistricting, you are likely to restrain yourself to some degree. Why? Well, you can gerrymander in your favor, moving your state far from symmetry, but if you go too far, and wake the sleeping judicial giant, you might have the entire process taken away from you. If that happens, you lose not only the opportunity to win a few more seats for your party, but also the opportunity to have completely free reign over many things that may otherwise make your life, and that of your party members, miserable.

So redistricting increases responsiveness and reduces partisan bias relative to no redistricting at all. In that sense, aspects of messy partisan redistricting battles can be good for democracy.

⁹Andrew Gelman and Gary King. 1994. “Enhancing Democracy Through Legislative Redistricting.” *American Political Science Review*, 88, Pp. 541–559. Copy at <http://j.mp/2ow4XoP>;

But, with gerrymandering becoming far more powerful as technology and statistical methods improve, it also means that the Supreme Court can play a fundamental role and reign in much of the excesses of gerrymandering without much trouble. All they need to do is to eliminate some of the worst cases by adopting the partisan symmetry standard, and to outlaw the worst excesses. If the Court takes this minimal action, redistricters -- jealous of their prerogatives -- will stay well away from that line. Any line, even one that is not bright white, will have the effect of greatly increasing the fairness of American democracy. The problem here is not some foreign power meddling in our election system; this is on us, as Americans. And the only institution in American politics well situated to fix the problem -- uniquely responsible for the functioning of our electoral system and at least aspirationally above politics -- is the Supreme Court. We know for certain, from two hundred years of partisan redistricting battles, that we can't leave it to legislatures to save the day.

So, as I wait with the rest of the country to hear the outcome of this important Court decision, I feel a little like I'm in the same position I was thirty years ago -- hoping someone will like my job talk.

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