

HAS SOCIAL SCIENCE TAKEN OVER ELECTORAL CAMPAIGNS AND SHOULD WE REGRET IT?

Vincent Pons

Harvard Business School

(Business, Government, and the International Economy)

Elections and political campaigns make for a fascinating research playground. They correspond to Marcel Mauss's definition of *fait social total*, a social phenomenon that involves all individuals and reveals something about them all.*¹ They take place frequently and nearly everywhere in the world, providing an ideal vantage point for comparing societies across time and space. They are documented with an increasing amount of data, starting with disaggregated electoral results. These features alone would suffice to explain the central importance of elections in the social sciences, from history and political science to economics and psychology. But a recent evolution makes the study of elections and campaigns perhaps even more appealing today: in almost no other fields are the recommendations of social scientists followed so closely and so rapidly. The first milestone in this trend was a study conducted during the November 1998 general elections in New Haven by two Yale political scientists, Alan Gerber and Donald Green, which compared the effects of door-to-door canvassing, phone calls, and mailings.² This article launched a large experimental literature investigating which campaign techniques could most effectively increase voter turnout or sway undecided voters. Candidates were quick to apply the most recent findings to their own campaigns, even hiring some of their authors as strategy advisers.

There may be reason, however, to lament the increasing power of social science to influence electoral campaigns. Shouldn't politics be less about productivity and maximizing the number of votes won and more about the desire and need to engage in ideological and policy debate? Shouldn't we worry that understanding the psychological determinants of the act of



voting may at the same time make it easier to manipulate uninformed and uneducated voters?

In this essay I address two complementary questions: Has social science really taken over electoral campaigns? If so, should we regret it? I will answer the first question with a nuanced “yes” and the second with a nuanced “no.” My analysis builds on the experimental political science literature of the last fifteen years, on the book *Porte-à-porte*,³ which I wrote with Guillaume Liégey and Arthur Muller, and on several other accounts of recent French and American electoral campaigns. Together with my own experimental research, my role as a national director of François Hollande’s 2012 field campaign and my observation and participation as a volunteer for Barack Obama’s 2008 and 2012 campaigns position me well to discuss recent electoral campaigns on both sides of the Atlantic.

I first argue that the increased role of social science is indeed one of the most striking features of these campaigns: just as in the field of medicine, which took an experimental turn in the nineteenth century, so too has campaigning become a more scientifically informed field. This revolution, however, has taken place earlier and on a larger scale in the United States than in France. My analysis identifies two “scientific” aspects of modern campaigns: the reliance on experimental evidence, and the systematic collection and utilization of public and private databases.

I contend that the incentives of political parties and candidates, who are the main “users” of the new electoral science, may in principle be misaligned with the democratic good. Political parties may in theory use these experimental findings in ways that harm democracy. In practice, however, the first experiments found that campaign techniques that relied on personal discussions with low-turnout voters were the most effective for winning votes. These techniques may increase citizens’ involvement in politics, thus alleviating potential concerns about the increased role of social science in electoral campaigns.

Finally, I turn to the most recent social-scientific findings to discuss the uses that electoral campaigns can make of them and the dangers they may pose to democracy. Concerns have long been raised over attempts by campaigns to manipulate voters. In his 1964 novel *The 480*, Eugene Burdick criticizes the manipulation of public consciousness that results from the use of computer simulations to predict the public reaction to political moves.⁴ The increased amount of data available about individuals, combined with our enhanced understanding of the psychological and behavioral determinants of voting, may facilitate this manipulation.⁵ Perhaps more importantly, the increasing number of experimental results makes it possible to identify the voters most or least responsive to campaign contacts. While neglecting the least responsive voters may be rational in the short-run from the perspective of political parties, it may reinforce the disenfranchisement of these citizens in the long-run. However important these concerns are, I argue that they can be adequately addressed through a combination of political and social-scientific responses.

The Increased Role of Social Science in Electoral Campaigns

Any electoral campaign must address the following dilemma: techniques to contact voters are numerous, but available resources are scarce. Although campaign budgets have dramatically increased in the United States, they remain limited in France. In both countries, only a small fraction of citizens engage in campaign activities. Most importantly, time is limited: electoral campaigns never span more than a few months, particularly in France, and available evidence suggests that only those contacts with voters that take place within the last weeks before the election actually matter.⁶ Candidates and their campaign teams must allocate these limited resources—money, people, and time—to a wide array of potential uses. Until recently, this strategic allocation relied on old habits and conventional political wisdom. Increasingly, however, the findings of political science research are being taken into account. To gauge the importance of this new trend, it is instructive to compare the United States, where the scientific turn started fifteen years ago, to France, where it has just begun.⁷

In the United States, Alan Gerber and Donald Green's aforementioned 1998 study gave birth to an entirely new sub-field of political science: experimental studies.⁸ The number of these experiments dramatically increased over time, covering different mobilization methods, exploring variations in delivery, comparing partisan and non-partisan campaigns, and investigating the mechanisms responsible for their impact on voter turnout and choice.⁹ Diverse as they are, these studies share one essential feature: their methodology, known as randomized evaluation or randomized controlled trial. Borrowed from medical research, this methodology relies on the comparison of a group of voters contacted by the campaign, the "treatment group," with a group of voters who do not receive any contact, the "control group." Both groups are randomly selected from the same population, making them symmetric and therefore comparable. As a result, any difference between average turnout and vote choice among treated and control voters on election day can be attributed to campaign effects. The transparency and simplicity of these randomized evaluations may explain why electoral campaigns have been so quick to apply their findings. In addition, the need for social scientists to cooperate with implementing agencies to run such experiments also increased their interactions with campaigns. In 2006, these interactions were organized and systematized by the creation of the Analyst Institute,¹⁰ a DC-based consortium organizing randomized experiments and communicating their results in lunch seminars that gather researchers, companies specializing in electoral campaigns, and senior campaign managers. But the science of campaigning is increasingly produced in-house by electoral campaigns themselves. In 2008 and 2012, the Obama campaign hired a large number of data scientists to work on text analytics, social network and media analysis, and online experiments and testing. Today, electoral science is widely disseminated through organizations such as the New Organizing Institute, which offers free online

training on organizing and campaigning,¹¹ and it is taught to aspiring researchers in political science departments and masters degree students in public administration.

The second dimension of the increased role of social science in electoral campaigns is the systematic use of (big) data, whether generated by the campaign or collected from outside sources. In 2012 alone, American political parties spent thirteen million dollars on the acquisition of data, including voter turnout history, socio-demographic information, online browsing habits, magazine subscriptions, and other consumer purchases.¹² These databases are merged together by specialized companies such as Catalist¹³ into a unique file with one line per American voter and hundreds of variables. This database is then used to predict voters' support for a given candidate and their likelihood to vote, and to target areas where the potential to win votes is highest.¹⁴ Reports by field activists during the campaign after their one-on-one interactions with voters further help determine which citizens should receive additional contact before election day. To describe American electoral campaigns as fully "scientific" and data-driven would certainly constitute an exaggeration; most of a campaign's budget is still spent on buying television ads, whose effects are known by social scientists to be small and short-lived.¹⁵ Still, the contrast with France is substantial.

Back in France after observing the Obama 2008 campaign, I discussed it with French politicians and was quite surprised to find widespread disagreement regarding the relative effectiveness of rival campaign techniques—a disagreement characteristic of pre-scientific eras. While many politicians deemed door-to-door canvassing an effective technique, nearly as many were convinced that it was too intrusive for French culture. But most were unable to and often uninterested in ranking the effectiveness of this technique compared to that of phone calls, mailings, or public meetings. To introduce some scientific evidence and test the external validity of the results obtained in the United States, I set up the first get-out-the-vote experiment ever organized in France to measure the impact of door-to-door canvassing during the 2010 regional elections.¹⁶ This experiment also enabled me to observe more closely fieldwork conducted by local units involved in the campaign and to attend strategy meetings at campaign headquarters. In the field, campaign activities and the areas targeted were determined based on habits and the political intuition of local party heads. At the campaign headquarters, comprehensive databases encompassing the entire region were simply nonexistent. When campaign strategy was debated, ideas were ranked based on their originality and novelty, not their effectiveness.

François Hollande's 2012 field campaign represented an important breakthrough in this respect. It was more scientific than previous electoral campaigns in France in at least four ways. First, the campaign strategy was based on the results of the aforementioned 2010 experiment and of other experiments conducted in the United States. Second, past electoral results at the

precinct level were used to estimate the number of target voters in each area and to prioritize them. Third, canvassers were asked to report the number of doors knocked and opened after each canvassing session on the campaign's website, which helped monitoring the overall progress of the campaign. Finally, a countrywide randomized evaluation was embedded in the campaign, which enabled me to assess its impact on the outcome of the election.¹⁷ While less advanced than in the United States, the scientific turn in electoral campaigns had begun in France as well. It is currently spreading to an ever-increasing number of countries. Since the end of the 2000s, randomized election experiments are no longer restricted to the United States (and to France); they have also taken place in countries as diverse as Benin, Brazil, Canada, China, England, Georgia, Ghana, Japan, Mexico, and Nigeria.¹⁸

A Lucky State of Affairs

Whether technical progress is dehumanizing or, to the contrary, whether it advances humanity, has been debated for centuries, at least since François Rabelais' famous assertion that "science without conscience is but the ruin of the soul."¹⁹ The answer to this question typically depends on the specific use to which scientific results are put. In the present case, the main beneficiaries of electoral science are the primary actors in electoral campaigns: political parties and candidates. But the maximization of vote share and other partisan goals do not necessarily align with the democratic good. Thus arises the worry that political parties may use the experimental findings in a way that actually harms democracy.

Is this concern justified? To answer this question, let us go back to the original experiment conducted by Alan Gerber and Donald Green. The results of this experiment are twofold. First, the authors find that campaign contacts can effectively increase voter turnout in the short- and long-run: come the next election, a citizen induced to vote once is more likely to return to the polls.²⁰ The second finding is that door-to-door canvassing offers the most cost-effective means to mobilize non-voters: personal and direct discussions that take place on doorsteps have a larger impact on turnout than phone calls and mailings.

Even though the campaign efforts studied by Gerber and Green were non-partisan, these results provided an invitation for political parties to give renewed attention to the mobilization of their supporters and to reach out to them through personal discussions. These recommendations were arguably also well-aligned with the democratic good. In a context of rising abstention and distrust of political parties and institutions, increasing the number of voters should enhance the legitimacy of the elected politicians, their representativeness, and the representativeness of their policies. In addition, personal political discussions with voters could increase the amount of information

available to them and improve the understanding that political activists, otherwise often inclined to spend their time debating among themselves, have of voters' views and expectations.

The findings of Gerber and Green have been confirmed by a large number of subsequent experiments conducted in a variety of elections and settings, and they largely influenced the electoral campaigns run by Democrats and Republicans in the United States after 2000. There are two caveats to my argument that these results and the related recommendations help align campaigns run by political parties with the democratic good. The first is that voter mobilization will increase the representativeness of elected politicians only to the extent that all political parties engage equally in this strategy. But this is not necessarily the case: accounts of the superiority of the Obama 2008 and 2012 campaigns at mobilizing supporters are numerous.²¹ Nonetheless, competition between parties and candidates ensures that the most effective campaign tactics will quickly be adopted widely. After the defeat of Mitt Romney in 2012, many prominent figures in the Republican Party called for the implementation of Obama's campaign strategy.²² Perhaps even more strikingly, just one month after the 2012 presidential elections in France, many right-wing candidates were reported to have engaged in door-to-door canvassing, which they believed had contributed to Hollande's success.²³

The second caveat is that a significant fraction of citizens may be insufficiently informed, such that campaign efforts increasing participation may lead to noisy electoral results and policies that harm democracy.²⁴ This claim is the subject of a substantial literature, empirical and theoretical, which I cannot give justice to here.²⁵ I shall simply note that the concern for the level of information possessed by marginal voters derives from a vision in which political interest and competence are fixed. However, recent empirical findings suggest that citizens induced to vote may also become more engaged in campaigns and elections.²⁶

Using Electoral Science to Manipulate or Discard Voters?

Let us turn now to the most recent developments in electoral science: do these findings pose a larger threat than was found in early studies? I will focus on three dimensions: the rise of voter persuasion strategies, behavioral "tricks" to increase voters' response to campaign contact, and the exclusion of some voters from electoral targeting.

The Rise of Voter Persuasion Strategies

There are two distinct ways to win votes: mobilizing non-voters likely to support one's candidate, and persuading active voters to vote for her instead of her rival. Voter mobilization techniques were the focus of the first experiments conducted by political scientists, in part because they are easier to

study. Indeed, their outcome, voter turnout, is recorded at the individual level and available in free and public voter files in many countries. Vote choice, on the other hand, is secret. More recent work has overcome this obstacle by measuring self-reported votes after the election. The caveat is that such surveys are costly, prone to misreporting, and have very low response rates. An alternative has been to run randomized evaluations not at the individual level, but rather at the precinct level, where administrative records of vote shares are available.²⁷ The impact of the campaign on vote choice can then be assessed by comparing electoral results in precincts that were or were not targeted. This method is logistically demanding, as it requires a large number of precincts to secure sufficient statistical power, but an increasing number of studies achieve a sufficiently large sample.

The recent focus on voter persuasion methods contributes to their renewed importance in recent electoral campaigns. Should this be a concern? Partisan efforts to change a voter's ranking of candidates may at first seem less innocuous than mobilizing abstentionists. An additional source of worry is that the depth of individual-level information available to political parties in the United States enables them to tailor their messages to the individual characteristics of the voters they contact and to conceal from them issues that may turn them off. For instance, a young mother with two children who subscribes to a family magazine will be more likely to receive information on a candidate's proposals to improve childcare and schooling. One may worry that such micro-targeted campaigns replace the deliberative democratic process with a fragmented aggregation of individual views.²⁸

However, one should not overestimate the ability of political parties to read and sway voters' minds. Persuasion can sometimes have large effects; the persuasive effect of door-to-door canvassing alone increased Hollande's victory margin by 0.6 percentage points, one-fifth of the difference with Sarkozy.²⁹ But there are also many examples in which attempts to persuade voters have backfired: negative campaigning may stimulate sympathy for the target of the attack,³⁰ and positive messages about a candidate may reduce overall support.³¹

In addition, the impact of persuasion (whether expected or unintended) is in part driven by the provision of information³²: voters use this information to update their beliefs about the competence of the candidate or the content of the political platform advanced by competing candidates. In this view, persuasive communication should not make voters worse off, and there is therefore no reason to worry about the effects of electoral science on persuasion. To the contrary, scientific results help political parties improve the delivery of information to voters and select the content most relevant to them.

Behavioral "Tricks" to Increase Voters' Response to Campaign Contact

This view of persuasion, however, is incomplete. Voters, it turns out, are not fully rational, and they can be affected by seemingly uninformative peripheral factors; persuasion can work through emotion. For example, researchers have

found that more attractive female canvassers participating in a fundraising campaign raise significantly more money,³³ and that the facial appearance of candidates can affect voters' preferences even when they are exposed to their pictures for one second only.³⁴ An entire strand of the experimental literature studies behavioral mechanisms that explain voters' behavior or their response to campaign communication. Each mechanism, when properly understood, can be translated into a number of strategies available to political parties to improve the effectiveness of their voter outreach activities. Is this manipulation, and should we be concerned?

Partisan efforts to influence and pressure voters, not to mention the purchase of their votes, are perhaps as old as elections themselves. A telling example can be found in Alain Garrigou's account of the first male universal suffrage elections organized in France in 1848.³⁵ In many villages, the local priest gathered his parishioners at the end of the mass on election day, and they all went voting as a *cortège*. The density of polling stations in 1848 was much lower than it is today, and the road to vote was often ten to twenty kilometers long. Needless to say, this gave priests more than enough time to "educate" their parishioners about the "right" way to vote. Indeed, it was not infrequent until the end of the nineteenth century to see a single candidate receiving every vote in a given village. Today, voters are perhaps too educated and informed to become subject to such blatant pressure. However, recent experiments have identified more subtle ways in which votes are generated.

During the 2012 Obama campaign, the script used by activists making phone calls included a series of factual questions: around what time was the voter planning to vote on election day, what would she be doing before heading to the polls, and would she vote alone or accompanied? These questions directly applied David Nickerson and Todd Rogers's finding that the formation of a voting plan can increase turnout by 4.1 percentage points among those contacted; picturing one's vote in advance makes casting a ballot more likely.³⁶ Another study finds that telling individuals that their decision to vote or abstain will be made public to other members of their community dramatically increases their participation, suggesting that peer pressure is an important driver.³⁷ An unintended consequence of the study, however, was that many participants contacted the implementing organization to voice their protest against a method they found too intrusive. To avoid creating discontent, the political consultant Hal Malchow adapted the intervention: he checked people's turnout history, sent them letters to thank them for having voted in the past, and included the sentence, "We hope to be able to thank you in the future for being the kind of citizen who makes our democracy work." This note made it clear that voting behavior would continue to be monitored, but in a way that was sufficiently subtle not to generate unease among voters. Indeed, the effect on turnout was still substantial, and no protest letters were received.³⁸

This technique may seem all the more manipulative because the mechanism used to increase participation was hidden. In my view, however, there is

no reason to worry about this or other behavioral “tricks” used in recent electoral campaigns. The “democratic conception of the citizen,”³⁹ according to which voters are informed and autonomous and make their choices individually and independently, is largely a fiction. My decision to vote and the candidate I choose are inevitably influenced by the media and by discussions with colleagues, neighbors, family members, and friends. The communication I receive from political parties is just one additional factor in this decision mechanism. There would be reason for concern if only one political party made use of these experimental findings. However, the influence of one party is counter-balanced by the influence of others.

In some sense, the real threat is perhaps the opposite: that parties make use of electoral science to identify voters unlikely to be persuaded and then stop communicating with them, thereby reinforcing their disenfranchisement.

The Exclusion of Chronic Nonvoters

The increasing sample size and number of field experiments make it possible to explore the variation in treatment effects of voter outreach methods across sub-populations and in different contexts. Are the effects larger among younger or older voters, among ethnic minorities or majorities, in competitive constituencies, or when the election is a landslide? Responses to these questions can be used to derive an optimal campaign strategy for voter contact.⁴⁰

One dimension along which variation in treatment effects has been repeatedly explored is voters' underlying propensity to vote. As noted by Kevin Arceneaux and Robin Kolodny, the findings obtained by different studies are seemingly contradictory: get-out-the-vote is sometimes found to be most effective among low-propensity voters, and other times among high-propensity voters.⁴¹ Arceneaux and Kolodny reconcile these studies through a unified model, where door-to-door canvassing increases turnout by mobilizing marginal voters, who are essentially indifferent between voting and non-voting. But which voters are marginal depends on the salience of the election: moderate propensity voters can be mobilized to vote in local elections, and low propensity voters in more prominent elections. In the most salient elections, there may simply be no one left to mobilize, as remaining non-voters are too distant from the act of voting. In other words, door-to-door canvassing may fail to further increase voter turnout when it is already at its peak, such as in French presidential elections. Fitting with this prediction, while the 2012 Hollande campaign increased the candidate's vote share, it failed to raise participation.⁴²

Chronic non-voters can easily be identified with voter turnout history. Political parties that rely on the above findings to design their campaign strategy will simply neglect these citizens. This prospect is particularly worrying: it may be rational from the point of view of candidates in the short-run, but it will certainly reinforce the political disenfranchisement of these voters in the long-run. As a result, voter mobilization may make the electorate less rep-

representative than it otherwise would be, resulting in an increase in overall political inequality.⁴³

However, I believe that this concern can be adequately addressed by the government and by non-partisan organizations, which can use data science in much the same way as parties. In particular, they can compensate for the lack of partisan contacts by specifically targeting non-voters both during and between elections. The government can pass electoral reforms and provide information to reduce the cost of voting. Non-partisan organizations can contact non-voters both during and between electoral campaigns to further reduce the costs and increase the benefits of voting and, therefore, enhance political participation in the long-run.

But this alone will likely not suffice: it should be complemented by a response from political scientists. First, the membership of non-partisan organizations such as the League of Women Voters or Rock the Vote that are engaged in voter outreach activities and can target non-voters is low, especially in comparison to partisan organizations in the United States, and it is almost nonexistent in France. This low membership calls for experiments targeting not just potential voters but potential activists, to better understand the determinants of political engagement. Non-partisan organizations would likely cooperate in experiments devoted to this question. It is in their own interest, as they could use the findings to increase their size and influence. Moreover, they tend to be less secretive than political parties about their strategies, and they have shown their sympathy for research in the past: many field experiments of voter outreach methods, including Gerber and Green's seminal study, were organized with their participation.⁴⁴

Second, strategies targeting non-voters should ideally be able to draw on empirical work on this topic, which is unfortunately scarce. This calls for an increased focus in future experiments, to carefully identify the obstacles causing some citizens to forswear voting. As an example, the study I conducted in France with Céline Braconnier and Jean-Yves Dormagen finds that a voter registration campaign that provided information and reduced administrative costs increased new registrations by 4.7 percentage points.⁴⁵ The impact was particularly large among youth, the less-educated, and immigrants, three groups with many marginalized citizens. By definition, the individuals registered thanks to the campaign would have been unable to vote otherwise. Instead, 93 percent of them participated at least once in the 2012 presidential and parliamentary elections.

Conclusion

Similar to medicine and biology in the middle of the nineteenth century, beginning in 2000 political science became experimental. An increasing body of research, pursued first in the US and later in France, as well as in a growing

number of other countries, investigates the effectiveness of new campaign techniques to mobilize non-voters and persuade the undecided. Political parties and candidates exploit any behavioral mechanism that can help mobilize their supporters to their advantage, and they use available information on individual voters to tailor campaign literature to their interests.

We should not deem these strategies manipulation, however. Electoral competition ensures that a persuasive effort used by one side will be balanced by the other, and that any successful new technique will soon be adopted by all parties. In fact, the most visible consequence of the increased influence of social science over electoral campaigns is the large number of activists canvassing the streets ahead of elections. These volunteers bring political discussions to people's doorsteps, helping to reinvigorate the democratic deliberative process.

The rise of large data-driven mobilization campaigns has, however, created hopes that it has thus far fallen short of fully delivering on. This includes the desire that more equal representation would result from increased mobilization and participation. Instead, political parties tend to stay away from voters regarded as too difficult to mobilize; instead, they target those who most closely resemble existing voters, sometimes making participation even more unequal.

There is a political and scientific need to engage in experimental research that will identify methods that successfully include chronic non-voters in the electorate and engage them beyond the act of voting. Only then will we be reassured that the power of social science over electoral campaigns has been put to good use—or, in other words, that this new electoral science has not been the ruin of the soul of democracy.

VINCENT PONS is an assistant professor at Harvard Business School (Business, Government, and International Economy unit). He studies questions in political economy and development. In his political economy research, he examines factors that explain people's failure to register and vote, and how institutions and political campaigns affect these factors. This work led him to write *Porte à porte: Reconquérir la démocratie sur le terrain*, about François Hollande's field campaign for the French 2012 presidential elections. Professor Pons received his PhD in economics from the Massachusetts Institute of Technology and his masters in economics from the École normale supérieure in Paris.

Notes

* I am very thankful to the NYU Institute of French Studies, which hosted the conference “Get Out the Vote! Campaign Techniques and Innovations to Mobilize Voters in France and in the US” on 17 October 2014, and to Herrick Chapman and Frédéric Viguer, who co-organized the conference, leading to this special issue of *French Politics, Culture, & Society*.

1. Marcel Mauss, *Essai sur le don* (Paris: PUF, 1968).
2. Alan S. Gerber and Donald P. Green, “The Effects of Canvassing, Telephone Calls, and Direct Mail on Voter Turnout: A Field Experiment,” *American Political Science Review* 94, 3 (2000): 653–63.
3. Guillaume Liégey, Arthur Muller, and Vincent Pons, *Porte-à-porte: Reconquérir la démocratie sur le terrain* (Paris: Calmann-Lévy, 2013).
4. Eugene Burdick, *The 480* (New York: McGraw Hill, 1964).
5. This concern is very explicitly raised for instance in the op-ed “Beware the Smart Campaign,” by Zeynep Tufekci, *New York Times*, 16 November 2012: “What I really worry about, though, is that these new methods are more effective in manipulating people.”
6. David W. Nickerson, “Forget Me Not? The Importance of Timing in Voter Mobilization,” (2006). Paper presented at the annual meeting of the American Political Science Association, Marriott, Loews Philadelphia, and the Pennsylvania Convention Center, Philadelphia, PA.
7. See also chapter 5 of *Porte-à-porte: “Sens politique ou science politique? Rationaliser les campagnes électorales.”*
8. The creation of a dedicated section at the American Political Science Association, in 2010, and of a dedicated journal, the *Journal of Experimental Political Science*, in 2014, gave experimental research an institutional home in the discipline.
9. For a review of this literature, see Donald P. Green, Mary C. McGrath, and Peter M. Aronow, “Field Experiments and the Study of Voter Turnout,” *Journal of Elections, Public Opinion and Parties* 23, 1 (2013): 27–48.
10. <https://analystinstitute.org/>.
11. <http://neworganizing.com/>.
12. Charles Duhigg, “Campaigns Mine Personal Lives to Get Out Vote,” *New York Times*, 13 October 2012.
13. <http://catalist.us/>.
14. David Nickerson and Todd Rogers, “Political Campaigns and Big Data,” *Journal of Economic Perspectives* 28, 2 (2014): 51–74.
15. Jonathan S. Krasno and Donald P. Green, “Do Televised Presidential Ads Increase Voter Turnout? Evidence from a Natural Experiment,” *The Journal of Politics* 70, 1 (2008): 245–61; and Alan S. Gerber, James G. Gimpel, Donald P. Green, and Daron R. Shaw, “How Large and Long-lasting Are the Persuasive Effects of Televised Campaign Ads? Results from a Randomized Field Experiment,” *American Political Science Review* 105, 1 (2011): 135–50.
16. For a longer presentation of this experiment and its results, see Vincent Pons and Guillaume Liégey, “Increasing the Electoral Participation of Immigrants: Experimental Evidence from France” (2015), working paper.
17. Vincent Pons, “Will a Five-Minute Discussion Change Your Mind? A Countrywide Experiment on Voter Choice in France,” Harvard Business School Working Paper, No. 16-079 (2016).
18. Green, McGrath, and Aronow, “Field Experiments and the Study of Voter Turnout,” 14.

19. François Rabelais, *Pantagruel: Les horribles et épouvantables faits et prouesses du très renommé Pantagruel Roi des Dispodes, fils du Grand géant Gargantua. Composé nouvellement par maître Alcofrybas Nasier* (Lyon: Claude Nourry, 1532).
20. Alan S. Gerber, Donald P. Green, and Ron Shachar, "Voting May Be Habit Forming: Evidence from a Randomized Field Experiment," *American Journal of Political Science* 47, 3 (2003): 540–50.
21. See for instance the article by Sasha Issenberg, "Obama Does It Better," *Slate*, 29 October 2012.
22. Steve Friess, "Ahead of the Midterms, GOP Operatives Are Obsessively Studying a Book About the Obama Campaign," *nymag.com*, 12 September 2013.
23. Adrien Gaboulaud, "Quand la campagne frappe à votre porte," *Paris Match*, 7 June 2012; Gaël Vaillant, "Lancar multiplie les portes pour gagner des voix," *Journal du dimanche*, 29 May 2012.
24. See Keith Jakee and Guang-Zhen Sun, "Is Compulsory Voting More Democratic?" *Public Choice* 129 (2006): 61–75.
25. The argument that institutions facilitating participation might bring in voters who are unlikely to cast a well-considered ballot and might add noise to the final results is made, for instance, by Jakee and Sun, "Is Compulsory Voting More Democratic?"; and by Peter Selb and Romain Lachat, "The More, the Better? Counterfactual Evidence on the Effect of Compulsory Voting on the Consistency of Party Choice," *European Journal of Political Research* 48 (2009): 573–97.
26. Céline Braconnier, Jean-Yves Dormagen, and Vincent Pons, "Voter Registration Costs and Disenfranchisement: Experimental Evidence from France," (2015), working paper.
27. See Costas Panagopoulos and Donald P. Green, "Field Experiments Testing the Impact of Radio Advertisements on Electoral Competition," *American Journal of Political Science* 52, 1 (2008): 156–68.
28. This view is expressed by Archon Fung, 19 May 2014, *Boston Review*, <http://www.bostonreview.net/forum/saving-privacy/archon-fung-response-saving-privacy>.
29. Pons, "Will a Five Minutes Discussion Change your Mind?"
30. David Sanders and Pippa Norris, "The Impact of Political Advertising in the 2001 UK General Election," *Political Research Quarterly* 58, 4 (2005): 525–36.
31. Michael Bailey, Daniel J. Hopkins, and Todd Rogers, "Unresponsive and Unpersuaded: The Unintended Consequences of Voter Persuasion Efforts," (2014), HKS Faculty Research Working Paper Series No. RWP13-034.
32. Stefano DellaVigna, and Matthew Gentzkow, "Persuasion: Empirical Evidence," *Annual Review of Economics* 2 (2010): 643–69.
33. Craig E. Landry, Andreas Lange, John A. List, Michael K. Price, and Nicholas G. Rupp, "Toward an Understanding of the Economics of Charity: Evidence from a Field Experiment," *The Quarterly Journal of Economics* 121, 2 (2006): 747–82.
34. Alexander Todorov, Anesu N. Mandisodza, Amir Gorden, and Crystal C. Hall, "Inferences of Competence from Faces Predict Election Outcomes," *Science* 308 (2005): 1623–26.
35. Alain Garrigou, *Le Vote et la Vertu: Comment les Français sont devenus électeurs* (Paris: Presses de Sciences Po, 1992), 288.
36. David Nickerson and Todd Rogers, "Do You Have a Voting Plan? Implementation Intentions, Voter Turnout, and Organic Plan Making," *Psychological Science* 21, 2 (2010): 194–99.
37. Alan S. Gerber, Donald P. Green, and Christopher W. Larimer, "Social Pressure and Voter Turnout: Evidence from a Large-Scale Field Experiment," *American Political Science Review* 102, 1 (2008): 33–48.
38. Sasha Issenberg, "Nudge the Vote," *New York Times*, 29 October 2010.

39. Daniel Gaxie, *Le Cens caché: Inégalités culturelles et ségrégation politique* (Paris: Seuil, 1978).
40. Kosuke Imai and Aaron Strauss, "Estimation of Heterogeneous Treatment Effects from Randomized Experiments, with Application to the Optimal Planning of the Get-Out-the-Vote Campaign," *Political Analysis* 19 (2011): 1–19.
41. Kevin Arceneaux and Robin Kolodny, "Educating the Least Informed: Group Endorsements in a Grassroots Campaign," *American Journal of Political Science* 53, 4 (2009): 755–70.
42. Pons, "Will a Five Minutes Discussion Change your Mind?"
43. Ryan Enos, Anthony Fowler, and Lynn Vavreck, "Increasing Inequality: The Effect of GOTV Mobilization on the Composition of the Electorate," *The Journal of Politics* 76, 1 (2014): 273–88.
44. Gerber and Green, "The Effects of Canvassing."
45. Braconnier, Dormagen, and Pons, "Voter Registration Costs and Disenfranchisement: Experimental Evidence from France."