

Letter

Endogenous Popularity: How Perceptions of Support Affect the Popularity of Authoritarian Regimes

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Being popular makes it easier for dictators to govern. A growing body of scholarship therefore focuses on the factors that influence authoritarian popularity. However, it is possible that the perception of popularity itself affects incumbent approval in autocracies. We use framing experiments embedded in four surveys in Russia to examine this phenomenon. These experiments reveal that manipulating information—and thereby perceptions—about Russian President Vladimir Putin’s popularity can significantly affect respondents’ support for him. Additional analyses, which rely on a novel combination of framing and list experiments, indicate that these changes in support are not due to preference falsification, but are in fact genuine. This study has implications for research on support for authoritarian leaders and defection cascades in nondemocratic regimes.

For dictators, being popular is better than being unpopular. Evidence of regime popularity, such as favorable opinion polls or election victories, can prevent voter and elite defections as well as bolster regime control (Hale and Colton 2017; Reuter and Szakonyi 2019; Tertychnaya 2020). A growing literature has therefore explored the factors that make authoritarian leaders popular, focusing primarily on the role of ideology (Colton and Hale 2009), performance evaluations (Magaloni 2006; Treisman 2011), and information manipulation in the form of propaganda or censorship (Guriev and Treisman 2019; 2020a).


An under-examined question is the extent to which the *perception* of an autocrat’s popularity can itself influence their popularity (e.g., Greene and Robertson 2019). Individuals may be more likely to express support for leaders when presented with evidence suggesting that support for the authorities is widespread. Similarly, individuals may be less likely to profess support when such evidence suggests that support for the regime is low or in decline. Such dynamics may reflect sincere


preference change or *insincere* change, where respondents’ publicly expressed views and preferences *do not* align with their privately held beliefs and opinions.¹


We examine these issues with a framing experiment that presents respondents with information about Russian president Vladimir Putin’s standing in opinion polls in the period 2020–21. Our experiment takes advantage of a unique circumstance: while a majority of Russians expressed support for Putin in surveys during this period, this support had sunk to historic lows. We were thus able to experimentally portray Putin’s approval ratings in either a positive or negative light without deception. Across four survey waves in the period 2020–21—three nationally representative (two face-to-face and one online) and one subnationally representative (online)—we find that inducing respondents to consider Putin’s ratings as relatively low leads to lower levels of support for him. However, showing respondents a frame that prompts them to consider Putin’s approval as relatively high does not influence their support for him.

We furthermore examine whether sincere preference updating or preference falsification drives these changes in support, taking advantage of the large sample size in the subnationally representative survey to pair our framing experiment with a list experiment. As in the direct questions, we find that the “low popularity” frame reduces estimated support for Putin. These results suggest that some Russians become *genuinely* less supportive of Putin when presented with

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¹ Public views are views expressed to strangers, including responses to survey questions (see also Hale and Colton 2017).

information that suggests he is unpopular. This evidence of sincere preference change implies that the popularity of autocratic leaders can be endogenous: perceptions of regime support can influence actual support.

THE POPULARITY OF AUTOCRATS

Most contemporary autocrats rely on their popularity to ensure social control (Guriev and Treisman 2019). Autocrats can draw popularity from some of the same sources as democratic leaders: citizens may support the leader's programmatic positions or character traits (Colton and Hale 2009; Hale and Colton 2017) or they may believe that the autocrat is performing well in office (Magaloni 2006; Treisman 2011). Contemporary authoritarian regimes also try to actively *shape* citizen perceptions of the regime. Through their control of the media, electoral subversion, and the suppression of opposition voices, dictators elevate their own real and perceived popularity (Guriev and Treisman 2019; 2020a).

Less attention has been paid to how the perception of a regime's popularity can itself influence support for that regime. Simpson (2013) argues that perceptions of incumbent popularity can persuade potential challengers that it is not worth challenging the regime. In the case of Russia, Greene and Robertson (2019) have suggested that Putin's popularity is, in part, founded on social pressures to conform with the dominant view. Similarly, Hale (2021) shows that the need to conform with a socially acceptable view could account for rally-round-the-flag effects.

This type of conformist behavior may reflect sincere support for the autocrat. As Bicchieri (2005) shows, people may choose to follow the preferences of others because they feel that others' choices are based on information that dominates their own. For example, opinion polls indicating majority support for an incumbent may lead citizens to infer that the leader is competent and trustworthy. Such updating may reflect a conscious consideration if individuals explicitly reason that the leader is more worthy of support simply because others support him.

New information may also lead to sincere preference changes by communicating the dominant, socially desirable view in society (Lohmann 1994; Hale and Colton 2017, 324). A long line of research shows that many individuals derive pleasure from conforming with the views held those around them (Durkheim [1912] 1965). By being in harmony with a meaningful reference group—here, the rest of society—individuals can derive positive utility (Edwards 1957; Hale 2021).

In the political realm, evidence that the ruling regime is popular may encourage some individuals to adopt and report more favorable assessments of the incumbent. However, a similar mechanism could lead to the opposite result: information that regime support is in decline or that opposition to the authorities is becoming socially desirable could lead individuals to (genuinely) adopt less favorable assessments of the regime. In both cases, the updating reflects true preference change.

However, a desire to conform with the majority may also encourage individuals to misreport their true views of the regime—to engage in preference falsification. Individuals could report public views that contrast with their private beliefs because they strive for social approval (Tourangeau and Yan 2007). Indeed, across a range of contexts, social desirability considerations routinely lead people to either report views or to engage in behaviors that do not align with their private beliefs (Blair, Coppock, and Moor 2020; Hale 2021; Maass and Clark 1983).

Thus, changes in the perception of regime popularity may lead to changes in rates of preference falsification. Reputational cascade models also hold that new information about regime support may encourage individuals who falsely reported support for the authorities to reveal their true preferences, believing that their preferences are more widely shared than previously thought (Kuran 1991). For example, opinion polls suggesting that opposition to the regime is growing could encourage individuals who previously only *privately* disapproved of the authorities' performance to reveal their sincere preferences now that publicly expressing opposition is seen as common. The opposite could also be true: as politicians become discredited, individuals who privately support them may publicly express opposition (e.g., Hale 2021; Kuran 1991).

The distinction between preference falsification and sincere conformism is more stark in theory than it is in practice. Individuals' publicly expressed beliefs are a balance between social pressures (e.g., the expectation to express certain views about a regime) and personal considerations (e.g., experiences). For many individuals, preference updating is likely to reflect a mix of both sincere and insincere updating. However, the distinction between sincere and insincere opinion change is important because these phenomena have different implications for regime stability.

AUTOCRATIC POPULARITY IN RUSSIA

Most observers agree that President Vladimir Putin's popularity is fundamental to the stability of Russia's authoritarian regime (Greene and Robertson 2019; Hale 2014). Since taking office in 2000, Putin has enjoyed popularity ratings that have never dropped below 60%. There is also substantial evidence that this support is largely sincere (Frye et al. 2017; Greene and Robertson 2019).

Although Putin's approval ratings have historically been quite high (above 80% for almost 4 years following the annexation of Crimea in 2014), they declined dramatically in early 2018 following an unpopular pension reform. Putin's popularity hovered just above 60% through the end of 2021.

RESEARCH DESIGN

There is already suggestive evidence that perceptions of Putin's popularity affect support for him. The

FIGURE 1. Framing Experiment

Control: On the whole, how much do you support the activities of the President of Russia?

Positive frame: Sociological surveys unanimously show that, on the whole, two thirds of Russians support the activities of the President of Russia. The President enjoys stable support from the population—a strong majority of Russians support the activities of the President of Russia. On the whole, how much do you support the activities of the President of Russia?

Negative frame: Sociological surveys unanimously show that only two thirds of Russians support the activities of the President of Russia. This is the lowest level of support for the President of Russia in recent years. On the whole, how much do you support the activities of the President of Russia?

- Completely do not support
- Mainly do not support
- Mainly support
- Completely support

Levada Center, Russia's most respected polling agency, regularly includes a question in nationally-representative surveys asking respondents who support Putin to explain their support by selecting items from a list of possible reasons. Putin's popularity is one item respondents can select. While assessments of Putin's experience, decisiveness, leadership, and perceived accomplishments routinely top the list, perceived popularity also matters. In multiple surveys in the 2000s, for example, 12%–17% of respondents noted that they support Putin because he “has the respect of people around me.”²

Unfortunately, such responses cannot form the basis for reliable inferences about how perceptions of regime approval drive Putin's popularity. Respondents who sincerely adhere to social norms about supporting Putin are likely to rationalize their support by identifying concrete reasons that they support Putin. Moreover, respondents may be loath to admit that they are so easily swayed by the opinion of those around them.

Another way of addressing this question is to look at the association between support for Putin and a respondent's beliefs about Putin's popularity. We identified two instances in which Levada posed this question: March 2015, when respondents were asked about perceptions of Putin's support levels³ and July 2018, when respondents were asked to estimate Putin's popularity in society.⁴ In both cases, support for Putin was strongly associated with believing that Putin was popular. However, respondents may have drawn conclusions about Putin's general popularity based on their own support,

or the two factors may be co-determined by unobserved factors.

To exogenously manipulate respondents' beliefs about Putin's popularity, we employ a framing experiment that attempts to shift respondents' perceptions about the popularity of the regime. To the best of our knowledge, this is the first effort to explicitly examine the effects of different frames of societal approval levels on respondents' own reported support for the regime. Our approach leverages the fact that levels of support for Putin were objectively high in 2020–21 (over 60%), but still much lower than in recent memory (over 80% following the annexation of Crimea). This makes it possible to frame Putin's poll numbers in both positive and negative light without deceiving respondents. Figure 1 shows the phrasing of the survey experiment.

Both the positive and negative frames provide the respondents with the same information: close to 67% of Russians have reported support for Putin in recent surveys when asked directly (63% in our November 2020 pilot survey).⁵ The positive frame notes that this quantity represents a strong and stable majority, whereas the negative frame notes that *only* that many Russians support Putin and that his approval rating is lower than it has been in recent years.

As previously noted, respondents who update in response to these experimental frames may be doing so because they sincerely update their preferences for

² <https://www.levada.ru/2016/03/21/vladimir-putin-otnoshenie-i-dov-erie-2/>.

³ <http://sophist.hse.ru/dbp/S=2054/Q=14/>.

⁴ <http://sophist.hse.ru/dbp/timeser/?S=2122&Q=44>.

⁵ In our November 2020 pilot, we referred to the president by name, i.e., “Vladimir Putin, the President of Russia”; the framing wording also used “social” as opposed to “sociological”; and the response scales were slightly different. Given the broad similarity in results between the pilot and the other three surveys, these differences are unlikely to be consequential.

FIGURE 2. List Experiment

Take a look at this list of politicians and tell me for how many you generally support their activities:

- The President of the USA
- The Chancellor of Germany
- The President of Belarus
- **The President of Russia**

Support: 0 1 2 3 4

Putin, or because they are misrepresenting (or ceasing to misrepresent) their true preferences. In order to investigate whether this updating is driven by a sincere change in preferences, we directly followed the framing experiment with a list experiment in a large-scale online survey.

In principle, list experiments allow respondents to reveal support for a political figure in aggregate without doing so individually (Blair, Coppock, and Moor 2020; Blair and Imai 2012; Glynn 2013; Imai 2011). Respondents are exposed to either a control or treatment list and asked to report the *number* of items pertaining to them. In our application, respondents see either a control list of international political figures or a treatment list with the same figures *and* “the President of Russia” (Figure 2). The lists are identical, except that the treatment list includes the sensitive item (Putin) in addition to the items on the control list. The average difference between control and treatment responses should therefore reflect the overall prevalence of support for Putin. However, since respondents only report a number, not specific items, respondents in the treatment group do not reveal if they support Putin specifically.

In this application, the list experiment should enable us to estimate the degree to which the framing experiment results are due to changes in levels of preference falsification. If results from the combined framing and list experiment are similar to those from the framing experiment alone, it is evidence that the frames result in a sincere change in preferences. However, if the frames affect estimates of Putin’s support from the direct question—but not the list experiment—it is evidence that the frames are changing levels of preference falsification.

In practice, design effects can limit the validity of list experiments. In the Russian context, Frye et al. (2023) argue that lists of political figures such as that which we use here could result in artificially deflated estimates of support for Putin. While these concerns imply that we should be cautious in using the results to make claims about Putin’s general popularity, they are of minimal relevance to our particular application. Even if design effects affect overall estimated support for Putin, they should be constant across framing experiment conditions. As a result, the treatment effect estimates from our framing experiment should not be subject to list design effects.

THE DATA

We analyze data from four surveys fielded in Russia between November 2020 and September 2021. The Levada and Russian Election Study (RES) surveys are nationally representative face-to-face surveys implemented by the Levada Center. The Public Opinion on Analog and Digital Services in Russia’s Regions (POADSRR) surveys are nationally and subnationally representative, respectively; they were fielded online using a sample frame provided by a well-regarded online polling center. Both the Levada and POADSRR nationally representative surveys were pilots for the RES nationally and POADSRR subnationally representative surveys.⁶ Since the changes between the pilots and pre-registered surveys were minimal, we report the results together.⁷ All surveys included the framing experiment, while the POADSRR surveys also included the framing × list experiment. Since the nationally representative POADSRR survey was severely underpowered for this framework, we only report framing and list results from the subnationally representative survey.

Using multiple survey firms and modes helps ensure that results are not driven by a specific firm or mode, alleviating concerns about experimenter demand effects.⁸

MODELS

To estimate the direct effect of the negative and positive frames on support for President Putin, we dichotomize the 4-point Likert scale support for Putin (President of Russia) question, coding the top two categories as 1 (“support”) and the bottom two categories as 0 (“do not support”). We use a linear probability model to regress this outcome on dichotomous

⁶ Survey details can be found in Appendix A of the Supplementary Material.

⁷ Pre-registration available at osf.io/8fj2q/?view_only=cfaf91f9e03043ac9b17d1863728efb8.

⁸ Experimenter demand effects likely vary across mode. For example, online experiments minimize experimenter–participant interaction and thereby (perceived) social pressure from the experimenter.

TABLE 1. Framing Effects on Support for President Putin

| | Levada National | POADSRR National | RES National | POADSRR Regional | POADSRR (List) Regional |
|---------------------------|--------------------|---------------------|-------------------|---------------------|----------------------------|
| | Nov 2020 | Jun 2021 | Sep 2021 | Aug 2021 | Aug 2021 |
| Support for the president | | | | | |
| Constant | 0.63*** (0.02) | 0.52*** (0.02) | 0.67*** (0.02) | 0.56*** (0.01) | 0.56*** (0.03) |
| Positive | -0.02 (0.03) | 0.01 (0.03) | -0.02 (0.03) | -0.002 (0.01) | -0.05 (0.04) |
| Negative | -0.08** (0.03) | -0.06* (0.03) | -0.07** (0.03) | -0.11*** (0.01) | -0.12*** (0.04) |
| Control list | | | | | |
| Constant | | | | | 1.00*** (0.02) |
| Positive | | | | | 0.02 (0.03) |
| Negative | | | | | 0.01 (0.03) |
| No. of obs. | 1,554 | 1,503 | 1,277 | 16,329 | 14,582 |
| R ² | 0.004 | 0.003 | 0.004 | 0.01 | 0.06 |

Note: All analyses use linear regression (dichotomized outcome for columns 1–4). The control list constant is the number of items respondents report supporting in the control condition. * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

indicators for the Negative and Positive frames, leaving the control condition as the reference category.⁹

$$y_i = \alpha_1 + \alpha_2 \text{Negative}_i + \alpha_3 \text{Positive}_i + \epsilon_i. \quad (1)$$

To estimate framing effects in the list experiment, we use standard linear regression.¹⁰ Specifically, we regress the number of political figures a respondent reports supporting on (1) an indicator for the list experiment treatment, (2) indicators of the framing treatments, and (3) the interaction of the experimental treatments:

$$y_i = \beta_1 + \beta_2 \text{Negative}_i + \beta_3 \text{Positive}_i + \alpha_1 \text{List}_i + \alpha_2 \text{List}_i \times \text{Negative}_i + \alpha_3 \text{List}_i \times \text{Positive}_i + \epsilon_i. \quad (2)$$

Quantities of interest are denoted by α . α_1 represents the estimated proportion of the population which supports Putin in the framing control condition. α_2 and α_3 represent the difference in this proportion between the control and the negative and positive framing

conditions, respectively. β represents control list parameters, which are not of substantive interest.

RESULTS

Table 1 reports the results from these analyses, which are remarkably consistent across survey waves.¹¹ Columns 1–4 show the direct effect of the two experimental frames on support for Putin, whereas column 5 estimates framing effects in the framing \times list experiment. The top row in Table 1 shows the estimated prevalence of support for the Russian president in the control condition (α_1), whereas the second and third rows report the effect of the positive and negative frames on this proportion (α_2 and α_3); the last three rows show the corresponding statistics for the list experiment control list (β_1 – β_3).

In all survey waves, the positive frame shows no statistically significant effect. In contrast, the negative frame shows a consistently significant and substantively strong effect across direct responses: a 6–11 percentage point decrease in estimated support. Respondents who received information that Putin's popularity was subpar were significantly less likely to report support for Putin than those in the control condition. These treatment effects are consistent across both the direct

⁹ We use dichotomized outcomes so that the results are comparable to those in the framing \times list experiment. We also analyze the data using ordered probit models and investigate the effects of the framing experiment on the outcome distribution in Appendix C of the Supplementary Material.

¹⁰ We implement a pre-registered algorithm to clean the list experiment data (Appendix A.3.1 of the Supplementary Material). List results are robust to maximum-likelihood estimators which Imai (2011) and Blair and Imai (2012) propose (Appendix A.4.2 of the Supplementary Material).

¹¹ Appendix B of the Supplementary Material provides balance checks on experimental treatments and Appendix A.4.1 of the Supplementary Material shows list experiment diagnostics. Results are robust to clustering standard errors by region and including demographics (Appendix C.1 of the Supplementary Material).

estimates (columns 1–4) and the indirect (list) estimate (column 5). The fact that the list experiment yielded similar results to those with directly stated outcomes suggests that results from the framing experiment are attributable to sincere changes in preferences, and not to changes in the extent of preference falsification.¹² When respondents are exposed to negative information about Putin's popularity, a substantial proportion sincerely revise their support for him downward.

The larger impact of the negative frame may be due to the fact that it provides more new information to respondents. If most respondents already believe that Putin's popularity is high and stable—in line with the positive frame—the effect of this frame would be biased toward zero.¹³ It is also possible that respondents pay more attention to negative news (Trussler and Soroka 2014).¹⁴

Appendix A.3.5 of the Supplementary Material presents results from analyses of heterogeneous treatment effects. The main demographic trait that appears to moderate treatment effects is age: the positive frame increases support for Putin among older respondents, whereas the negative frame appears to have a weaker effect among this group relative to other age categories.

CONCLUSION

Autocrats in the twenty-first century are attuned to their image.¹⁵ In place of overt repression, they manipulate the informational environment to convince the masses that they are popular (Guriev and Treisman 2019; 2020b). Here, we examine one reason why this manipulation may be particularly important: perceptions of incumbent popularity might themselves inflate incumbents' approval levels. This study provides one of the first experimental tests of the degree to which perceptions of incumbent approval influence public opinion in these regimes.

The empirical analysis uses a series of framing experiments, embedded in four surveys of public opinion in Russia. We find that a frame revealing relatively low support for Putin makes respondents less likely to report support for him. A combined framing and list experiment indicates that the results from the framing experiment

are, in fact, due to sincere updating of preferences.¹⁶ These findings demonstrate that perceptions of Putin's popularity can influence his actual level of support.

These results imply that shaping perceptions—through propaganda, indoctrination, schools, and the media—is an important element of authoritarian popularity and thus stability. While conformist impulses likely shape support for politicians in democracies as well, this phenomenon is of particular importance in autocratic settings, where incumbents have an outsized ability to shape both their own popularity and perceptions of their popularity. Many contemporary autocrats have high approval ratings when compared to their democratic counterparts; our research demonstrates how this popularity can be self-sustaining, even in the absence of significant preference falsification.

At the same time, endogenous popularity can be fragile. Indeed, our results show that relatively mild negative information can reduce support for an autocrat by 6–11 percentage points. This fragility has important implications for regime stability. When social consensus breaks down, regimes can dissolve rapidly. Such cascades are likely to be even more abrupt when consensus rests on perceptions, as opposed to being manufactured through intimidation, normative congruence, or ideology. Individuals who support the authorities because they think that the authorities are popular may be quick to withdraw support when they think that others around them have begun to do the same.

SUPPLEMENTARY MATERIAL

To view supplementary material for this article, please visit <https://doi.org/10.1017/S0003055423000618>.

DATA AVAILABILITY STATEMENT

Research documentation and data that support the findings of this study are openly available at the American Political Science Review Dataverse: <https://doi.org/10.7910/DVNV/NVXQ0G>.

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¹² Appendix A.3.4 of the Supplementary Material provides additional analyses of preference falsification across experimental conditions.

¹³ Survey evidence suggests that this explanation is plausible: in December 2021, around 42% of Russians believed that the Russian president enjoys the support of a majority of citizens.

¹⁴ The asymmetry of framing effects is not consistent with experimenter demand effects. If both the positive and negative frames help respondents infer the purpose of an experiment and thereby encourage them to adjust their behavior, then both should lead to attitudinal updating. Moreover, Russia's authoritarian nature should make such compliance with the positive frame more likely than with the negative frame.

¹⁵ The Kremlin's obsession with monitoring and promoting its own opinion ratings has even been termed "ratingocracy" (Hale 2010).

¹⁶ While our research design cannot determine the precise psychological mechanism that underlies updating, this finding provides a necessary basis for such research in the future.

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CONFLICT OF INTEREST

The authors declare no ethical issues or conflicts of interest in this research.

ETHICAL STANDARDS

The authors affirm that this article adheres to the APSA's Principles and Guidance on Human Subject Research. The authors declare the human subjects research in this article was reviewed and approved by the Institutional Review Board at the University of Wisconsin–Milwaukee and The George Washington University Office of Human Research. Certificate numbers are provided in the Supplementary Material.

REFERENCES

- Bicchieri, Cristina. 2005. *The Grammar of Society: The Nature and Dynamics of Social Norms*. Cambridge: Cambridge University Press.
- Blair, Graeme, Alexander Coppock, and Margaret Moor. 2020. "When to Worry about Sensitivity Bias: A Social Reference Theory and Evidence from 30 Years of List Experiments." *American Political Science Review* 114 (4): 1297–315.
- Blair, Graeme, and Kosuke Imai. 2012. "Statistical Analysis of List Experiments." *Political Analysis* 20 (1): 47–77.
- Buckley, Noah, Kyle L. Marquardt, Ora John Reuter, and Katerina Tertychnaya. 2023. "Replication Data for: Endogenous Popularity: How Perceptions of Support Affect the Popularity of Authoritarian Regimes." Harvard Dataverse. Dataset. <https://doi.org/10.7910/DVN/NVXQ0G>.
- Colton, Timothy J., and Henry E. Hale. 2009. "The Putin Vote: Presidential Electorates in a Hybrid Regime." *Slavic Review* 68 (3): 473–503.
- Durkheim, Emile. [1912] 1965. *The Elementary Forms of the Religious Life*. Glencoe, IL: The Free Press.
- Edwards, Allen L. 1957. *The Social Desirability Variable in Personality Assessment and Research*. Fort Worth, TX: Dryden Press.
- Frye, Timothy, Scott Gehlbach, Kyle L. Marquardt, and Ora John Reuter. 2017. "Is Putin's Popularity Real?" *Post-Soviet Affairs* 33 (1): 1–15.
- Frye, Timothy, Scott Gehlbach, Kyle L. Marquardt, and Ora John Reuter. 2023. "Is Putin's Popularity (Still) Real? A Cautionary Note on using List Experiments to Measure Popularity in Authoritarian Regimes." *Post-Soviet Affairs* 39 (3): 213–22.
- Glynn, Adam N. 2013. "What Can We Learn with Statistical Truth Serum? Design and Analysis of the List Experiment." *Public Opinion Quarterly* 77 (S1): 159–72.
- Greene, Samuel, and Graeme Robertson. 2019. *Putin vs. the People*. New Haven, CT: Yale University Press.
- Guriev, Sergei, and Daniel Treisman. 2019. "Informational Autocrats." *Journal of Economic Perspectives* 33 (4): 100–27.
- Guriev, Sergei, and Daniel Treisman. 2020a. "The Popularity of Authoritarian Leaders: A Cross-National Investigation." *World Politics* 72 (4): 601–38.
- Guriev, Sergei, and Daniel Treisman. 2020b. "A Theory of Informational Autocracy." *Journal of Public Economics* 186: 104158.
- Hale, Henry E. 2010. "Eurasian Politics as Hybrid Regimes: The Case of Putin's Russia." *Journal of Eurasian Studies* 1 (1): 33–41.
- Hale, Henry E. 2014. *Patronal Politics: Eurasian Regime Dynamics in Comparative Perspective*. Cambridge: Cambridge University Press.
- Hale, Henry E. 2021. "Authoritarian Rallying as Reputational Cascade? Evidence from Putin's Popularity Surge after Crimea." *American Political Science Review* 116 (2), 580–94.
- Hale, Henry E., and Timothy J. Colton. 2017. "Who Defects? Unpacking a Defection Cascade from Russia's Dominant Party 2008–12." *American Political Science Review* 111 (2): 322–37.
- Imai, Kosuke. 2011. "Multivariate Regression Analysis for the Item Count Technique." *Journal of the American Statistical Association* 106 (494): 407–16.
- Kuran, Timur. 1991. "Now Out of Never: The Element of Surprise in the East European Revolution of 1989." *World Politics* 44 (1): 7–48.
- Lohmann, Susanne. 1994. "The Dynamics of Informational Cascades: The Monday Demonstrations in Leipzig, East Germany, 1989–91." *World Politics* 47 (1): 42–101.
- Maass, Anne, and Russell D. Clark. 1983. "Internalization versus Compliance: Differential Processes Underlying Minority Influence and Conformity." *European Journal of Social Psychology* 13 (3): 197–215.
- Magaloni, Beatriz. 2006. *Voting for Autocracy: Hegemonic Party Survival and Its Demise in Mexico*. Cambridge: Cambridge University Press.
- Reuter, Ora John, and David Szakonyi. 2019. "Elite Defection under Autocracy: Evidence from Russia." *American Political Science Review* 113 (2): 552–68.
- Simpser, Alberto. 2013. *Why Governments and Parties Manipulate Elections: Theory, Practice, and Implications*. Cambridge: Cambridge University Press.
- Tertychnaya, Katerina. 2020. "Protests and Voter Defections in Electoral Autocracies: Evidence From Russia." *Comparative Political Studies* 53 (12): 1926–56.
- Tourangeau, Roger, and Ting Yan. 2007. "Sensitive Questions in Surveys." *Psychological Bulletin* 133 (5): 859–83.
- Treisman, Daniel. 2011. "Presidential Popularity in a Hybrid Regime: Russia under Yeltsin and Putin." *American Journal of Political Science* 55 (3): 590–609.
- Trussler, Marc, and Stuart Soroka. 2014. "Consumer Demand for Cynical and Negative News Frames." *The International Journal of Press/Politics* 19 (3): 360–79.