7 The Psychology of Public Opinion

Lauren C. Howe and Jon A. Krosnick

7.1 Introduction

Both the measurement and scholarly study of public opinion have a long history. Almost two centuries have passed since the publication of the first public opinion poll: the Harrisburg Pennsylvanian newspaper's coverage of voters' opinions in the 1824 presidential race between John Quincy Adams and Andrew Jackson (Madonna & Young, 2002). Over eight decades have elapsed since the journal Public Opinion Ouarterly, devoted to research on public opinion, was founded. Today, polls are used to measure public opinion on sociopolitical issues in more than 90% of all countries (Frankovic et al., 2017). In any democracy, public opinion plays a central role, and understanding how these opinions are formed and how they shape people and politicians' actions is of vital importance.

But what is public opinion? Susan Herbst (1993) called it 'one of the most widely used yet least understood constructs' (p. 438). Accordingly, a review of research on public opinion must begin by considering what exactly public opinion entails. This can be challenging, given that different participants in the political process may define public opinion in different ways (Herbst, 1998). For example, a person may define public opinion as an aggregate of individual opinions, as it is measured in polls. But public opinion could also be defined as the majority opinion on a topic, or as the general societal consensus on an issue (Herbst, 1993). Others argue that

public opinion does not exist at all, but is merely a projection of the political elite or the media leveraged for self-interested purposes (Lippmann, 1922).

When defining public opinion, identifying the kinds of opinions that may be held among the public as public opinion is critical. After all, studies of public opinion do not concern themselves with any attitude or belief held among the public. It is not a matter of public opinion whether people believe that the sky is blue. Instead, the study of public opinion is restricted to studying issues that are matters of public debate, or where there is uncertainty regarding public consensus on an issue. Notably, there may be a lack of public consensus on issues where there is in fact consensus among other sub-groups in society (e.g., among scientists), such as when it comes to opinions about climate change or the hazards of vaccination. The hallmark of public opinion is that, among the general public, there is uncertainty regarding the consensus on the issue.

But being a matter of public debate is not the only criterion for issues of public opinion, as there are issues on which there may be public disagreement, but where the issue does not hold serious enough societal consequences to be deemed a matter of public opinion. For instance, it is not a matter of public opinion whether people prefer chocolate to vanilla ice cream. Instead, the study of public opinion is restricted to issues that hold significance for society. For example, whether people like a presidential candidate's outfit might not be a matter of public opinion, unless people expected that the candidate's manner of dress influenced matters of importance in society, such as the potential future president's ability to impress foreign diplomats or to be taken seriously by other politicians.

Accordingly, we define public opinion as opinions on matters of public debate that have significant implications for society. Defined in this way, public opinion could entail both opinions with a positive or negative valence, or 'attitudes' as they are defined in the social psychological literature (Eagly & Chaiken, 1993), and beliefs that link an object to a particular attribute (e.g., capital punishment deters crime). In the current review, we focus primarily on valenced opinions or attitudes. In past decades, studying how people form beliefs on sociopolitical topics may have been less relevant than studying attitudes. However, we note that, in recent years, how people form accurate or non-accurate non-valenced beliefs has become a centrepiece of public debates. For instance, it is a matter of public discussion today whether people believe that the planet is warming or not, that a politician said outlandish statements or not, and whether news is 'real' or 'fake'. Non-valenced beliefs, such as whether the sky is blue, could thus constitute matters of public opinion, as long as the public debated the issue and viewed the issue as societally significant. Thus, the study of how people form particular beliefs could increasingly become part of discussions of public opinion in the future.

This chapter provides an overview of key developments in three central topics in research on public opinion: *opinionation*, or whether a person forms an opinion on an issue or not, *directionality of opinion*, or whether a person forms a particular kind of opinion (e.g., favourable or unfavourable) on an issue, and the *consequences of public opinion*, or how

opinions shape action. Since public opinion is primarily connected with matters of politics, we focus on public opinion when it comes to sociopolitical issues.

7.2 Psychological Antecedents of Opinionation

People vary in whether they have an opinion about a sociopolitical topic or whether they hold no opinion about a politician, institution, or policy. This section summarises research on factors that shape opinionation: when and why does a person form an opinion on a political topic?

7.2.1 Number of Opinions

The following factors have been shown to predict the total number of opinions a person holds on sociopolitical issues:

Need to Evaluate. Jarvis and Petty (1996) identified an individual difference called 'need to evaluate', which is defined as a person's tendency to automatically evaluate the positive and negative qualities of encountered objects. Someone high on the need to evaluate would be likely to agree that they pay a lot of attention to whether things are good or bad, form opinions about everything, and have more opinions than the average person. People with higher levels of this personality trait are thought to automatically recognise the positive or negative qualities of most objects they encounter, and thus to spontaneously form attitudes towards a given object. Conversely, people low on the need to evaluate can observe an object and note its existence without evaluating it, and thus are thought to have fewer attitudes stored in memory than people who have a high need to evaluate. Consistent with this reasoning, Jarvis and Petty (1996) showed that people higher in the need to evaluate were much less likely to say that they had no opinion to questions measuring their attitudes towards a range of social and political issues (e.g., the environment, abortion, capital punishment).

Education. Krosnick and Milburn (1990) found that American adults who had more formal years of education tended to express more opinions about various government policy issues. This suggests that people with more cognitive skills are more likely to form opinions on political topics. In part, education appeared to increase opinionation because education increased people's knowledge about politics.

Political Knowledge. The amount of knowledge an individual has stored in memory about politics predicts forming an opinion on political issues. In a study of American adults, people with higher levels of objective political competence (e.g., factual knowledge about political history and current events, as well as exposure to political information) expressed more opinions about government policy issues (Krosnick & Milburn, 1990). However, subjective political competence, or one's own impression that one understands politics, did not predict people's tendency to express opinions about government policy.

Importance of Opinions. The perception that one's opinions are impactful in the political process also increases opinionation. In one study, American adults who agreed that government is responsive to public opinion expressed more opinions about government policy issues (Krosnick & Milburn, 1990).

7.2.2 Reporting Having an Opinion versus Having No Opinion

Research has also examined the inverse of opinionation, or what causes individuals *not* to form an opinion on a topic. Insights on this come from the literature on questionnaire design, which has studied the factors that

cause people to report that they have no opinion when they are asked about a political issue. Experimental studies manipulate whether the option to report 'no opinion' is present or absent in a questionnaire, and then assess what characteristics lead individuals to be most attracted to this response option. These studies suggest the following characteristics correlate with the tendency to lack an opinion on a topic:

Education. Respondents with the lowest levels of formal education tend to be more likely to report that they have no opinion on topics such as government policies when the option to report no opinion is available (Bishop et al., 1986; Krosnick et al., 1996, 2002).

Interest and Importance. People who consider a particular issue to be of less personal interest or importance are more likely to report that they have no opinion on a topic (Bishop et al., 1980; Schuman & Presser, 1981).

Being Interviewed about a Topic. By provoking thought and conversation, interviewing people may increase their interest in the topic and inspire them to think and learn more about it, ultimately resulting in opinionation. Experiments have shown that when a person is interviewed twice on the same topic (e.g., policy issues), this person is less likely to report that they have no opinion in the second interview, compared to the first one (Crespi, 1948; Waterton & Lievesley, 1987). This is consistent with the idea that asking people for their opinion in a first interview prompts them to think about and form an opinion on a topic, which they then report in a second interview.

Perceived Demand for Opinionation. People may report opinions because of perceived social pressure to hold an opinion on a given topic. Krosnick et al. (2002) tested this question by varying whether respondents were allowed to report their opinions about a proposed environmental clean-up plan by writing them confidentially on a piece of paper and

depositing the paper in a sealed 'ballot box', or were required to state their answer out loud to the interviewer. They found that more respondents reported having no opinion about the plan when they could express this privately than when they were asked to express their opinion publicly to interviewers. This was especially true among respondents with the lowest levels of formal education, suggesting that this group may be particularly susceptible to social pressure to form opinions.

7.3 Directionality of Opinion

The next two sections provide an overview of factors that shape the direction of public opinion, such as holding a positive or negative attitude on a sociopolitical topic. The first section reviews insights regarding opinion directionality drawn from the psychological literature on attitude formation, with a particular focus on how these insights apply in the context of public opinion on political issues. The second section reviews additional key antecedents drawn from the literature on public opinion.

7.3.1 Research on Attitude Formation

Genetics. Political attitudes may in part be heritable (see also Chapter 3). Research has found that genes contribute to the variation in conservative and liberal political attitudes (Hatemi et al., 2011), as well as attitudes on specific political issues (e.g., the death penalty, disarmament) (Alford et al., 2005), political parties, and party identification (Bell et al., 2009). Generally, sociopolitical attitudes that appear the most heritable are those that are rooted in morality (e.g., attitudes towards the death penalty, punishment for sex offenders, and birth control; Brandt & Wetherell, 2012).

Studies suggest possible pathways through which genes may influence political attitudes.

One study indicates that political attitudes are transmitted in part because of their link to personality traits that are passed on from parents to their offspring (Kandler et al., 2012). As an example, agreeableness correlates negatively with acceptance of inequality, so offspring who inherit this personality trait from their parents are likely to similarly reject inequality. Another study suggests that genetics predict greater shared cognitive ability, and level of cognitive ability tends to predict political orientation (Oskarsson et al., 2015).

Mere Exposure. Being exposed to a particular object (e.g., a person) increases its familiarity and thus positive attitudes towards this object (Zajonc, 1968, 2001). For example, brief exposure to information about transgender individuals (e.g., a definition of the term 'transgender') improved people's attitudes towards transgender individuals (Flores et al., 2018). Exposure to a persuasive political message can also increase one's tendency to act in line with that message. In a study of undergraduate students, those exposed to posters with an appeal to reduce foreign aid had less positive attitudes towards foreign aid and were more likely to volunteer to help organise a protest on the topic (R. L. Miller, 1976), though overexposure to persuasive political messages may elicit reactance and/or counterarguing (Cacioppo & Petty, 1979).

Classical and **Operant** Conditioning. Classical conditioning is the process of pairing a neutral object with an object that produces positive or negative affect. By pairing the previously neutral object with affectively charged objects, a person develops a positive or negative association with the object. Research shows that classical conditioning can shape attitudes (Staats & Staats, 1958). Similarly, operant conditioning, or a process through which reinforcements enhance behavioural tendencies and punishments diminish them (Skinner, 1957), can shape the direction of attitudes. For example, one study showed that attitudes towards university policies became more positive when students received positive reinforcement (e.g., verbal indicators of agreement) from an interviewer asking for their opinion on this topic (Hildum & Brown, 1956; see also Insko, 1965).

Modelling and Identification. Attitudes are shaped by the influence of liked people and groups (Kelman, 2006). Through the process of identification, a person may adopt attitudes in order to establish or maintain a positive relationship with a liked individual. One example of this is the process of modelling whereby a person adopts an attitude consistent with a desirable role model. As one study showed, when an African-American student with admirable qualities (e.g., someone who was high-status and respected) reported their opinion about the 1954 Supreme Court decision to desegregate schools, fellow African-American students were more likely to report attitudes that were similar to this person's stated opinions, even when those opinions were not particularly popular among African-American students in general (Kelman, 1958).

Conformity to Perceived Norms. People adjust their opinions in light of what others believe (e.g., they conform to a majority opinion, Asch, 1951; Deutsch & Gerard, 1955; Sherif, 1936). This influence can extend to people who are outside of a person's social contacts (e.g., close friends and family) to include anonymous others, such as those whose opinions are depicted in mass media (Mutz, 1992). This form of social influence has been given much attention in the literature on the 'bandwagon effect' (Gallup & Rae, 1940; Simon, 1954).

The bandwagon effect suggests that voters who think a particular political party or candidate will win succumb to social influence and vote for the party or candidate preferred by the majority (for a review of studies, see Grillo,

2017). Recently, a natural experiment in France tested for the presence of bandwagon effects by studying changes in voting patterns after reform to voting legislation in 2005 (Morton et al., 2015). For French western overseas territories, voting was changed so that they voted the day before the mainland, rather than the day after. Thus, people in these territories would no longer have knowledge of the mainland population's choices. Results indicated that knowledge of the other voters' choices increased bandwagon voting. Similarly, an experiment that presented US adults with polls showing different levels of support for various policies (e.g., reducing troops in Afghanistan, free trade agreements) evidence for bandwagon effects (Rothschild & Malhotra, 2014), as did a study of electoral support for political parties in Denmark (Dahlgaard et al., 2017).

7.3.2 Research on Public Opinion

The literature on public opinion offers suggestions for additional antecedents that should be considered (e.g., Kinder, 1998) and which are reviewed below.

Values and Principles. Underlying values and principles predict political attitudes. For example, people's commitment to equality predicts their attitudes towards welfare programmes, government provision of jobs, and an acceptable standard of living (Feldman, 1988). Values of egalitarianism, moral traditionalism, and religiosity predict people's views of transgender people and support for their rights (Jones et al., 2018). Furthermore, the priority that an individual places on a particular value predicts attitudes towards policies. For example, one study showed that the more that people prioritised freedom over national security, the more strongly these individuals opposed domestic CIA surveillance (Tetlock, 1986).

Personality Traits. Specific personality traits predict political attitudes (see also Chapter 5). For example, authoritarianism correlates with attitudes towards policies related to drug use and disease, environmental conservation, and homelessness (Peterson et al., 1993). Social dominance orientation, an individual difference measure of the preference for groupbased hierarchy, predicts policy preferences including support for gay and lesbian rights, women's rights, military programmes, and environmental conservation (Pratto et al., 1994; Sidanius et al., 2006). Personality traits also predict approval ratings of politicians; for example, citizens who are high in consciousness and emotional stability and low in openness to experience are more likely to approve of Republican presidents (Gerber et al., 2008).

Group Memberships. Political attitudes are influenced by membership in particular social groups. For example, even among citizens who are sympathetic to the plight of working women, women who belong to and identify with the group of 'working women' express more consistently pro-women policy preferences than do people who do not belong to this group (Conover, 1988). Group memberships need not necessarily be current in order to influence attitudes. In an experiment that varied whether a politician used Christian references when making a political appeal (i.e., quoting the Bible), people who either currently or previously identified as Christian had more positive implicit attitudes towards this politician and were more likely to say that they would attend a speech given by them (Albertson, 2011).

Costs and Benefits. Sometimes the positivity and negativity of an attitude is influenced by the relative costs and benefits with which an attitude object is associated. For example, people form more positive attitudes towards policies that benefit groups they like and form

more negative attitudes towards policies that will benefit groups they dislike (e.g., Gilens, 1996; Sniderman et al., 1986). Societal costs affect support for political policies and actions, such that more costly endeavours tend to spark more negative attitudes. For example, Mueller (1973) demonstrated that approval of war was largely a function of the number of casualties involved in the war; higher costs embodied in a larger number of casualties resulted in less approval. Subsequent research suggested that the public weighs costs and benefits when it comes to war. For example, during the 2003-2004 US war in Iraq, researchers found that the public approved of the war despite the casualties (i.e., costs) it incurred as long as they believed that the initial decision to launch the war was right and that the war was likely to be successful (i.e., they perceived benefits; Gelpi et al., 2006).

7.4 Consequences of Public Opinion

There is a wealth of research on how opinions influence thought and action, which cannot be covered in full in this chapter. Thus, this review focuses on a central concern in the study of public opinion: how public opinion influences the political behaviour of individuals and political figures.

7.4.1 Voting

One of the most well-studied behaviours when it comes to how opinions translate into action focuses on voting. Opinions about both policy and political candidates can motivate voting.

Policy-Based Voting. Policy-based voting is a process in which citizens vote based on their perceptions of the positions that candidates take on policy issues. In this literature, it has been theorised that citizens make their decisions in a pattern called proximity voting: the candidate whom a citizen perceives to be closer

to the citizen in terms of their stance on policy issues is thought to gain appeal from this proximity (Downs, 1957). Experimental studies presenting participants with descriptions of hypothetical candidates have found evidence for proximity-based voting (Claassen, 2007, 2009; Lacy & Paolino, 2010; Tomz & Van Houweling, 2008). However, there is a caveat to the finding that candidates' policy positions predict votes. To cast a vote based on a policy issue, a voter must perceive the competing candidates as taking clear and different positions on the issue (Brody & Page, 1972; Krosnick, 1988). Thus, candidates must be distinguished from one another in terms of their policy positions for policy opinions to have an impact on the public's voting decisions.

Further, the literature on attitude strength has added a valuable nuance to the research on policy-based voting, suggesting that not all policy opinions will shape voting behaviour. The literature on attitude strength shows that attitudes can vary in the degree to which they are resistant to change, stable over time, influential on cognition, and influential on action (Krosnick & Petty, 1995). A variety of features of attitudes may lead them to be stronger than others, including the importance of the attitudes, or the degree to which an individual attaches significance to an attitude (Howe & Krosnick, 2017). Thus, policy opinions may drive behaviour (e.g., candidate choice) only when they possess the features of strong attitudes (e.g., they are personally important).

Supporting this idea, people vary in the amount of personal importance they attach to their attitudes on policy issues (Anand & Krosnick, 2003). This literature identifies citizens who attach the highest level of personal importance to an issue as that issue's *issue public* (Converse, 1964), or 'groups of people with highly important attitudes toward specific policy options' (Krosnick, 1990, p. 81).

Indeed, the personal importance of a policy issue affects people's likelihood of voting on this issue. The more importance people attach to their opinion on a political policy, the better their opinion on that issue predicts their vote choices (Anand & Krosnick, 2003; Bélanger & Meguid, 2008; Fournier et al., 2003; Krosnick, 1988; J. M. Miller, Krosnick, & Fabrigar, 2016; Visser et al., 2003). Some studies shed light on how the importance of policy opinions shapes other behaviours that underlie voting. For example, people who are part of an issue public tend to selectively seek out information about policies that they care about on the web, and this both further strengthens their policy attitudes and shapes their issue voting patterns (Kim, 2009). Holding more policy positions also predicts turnout in general. The more policy issues that citizens attach personal importance to, the more likely they are to vote (Visser et al., 2003). Thus, people who attach high importance to their opinion on political issues seem especially motivated to vote and base their decisions to vote on these policy opinions.

Candidate-Based Voting. Candidate-based voting is a process through which a person's attitude towards a particular political candidate motivates voting for that candidate. The literature suggests that such voting emerges mostly when a person has a strong preference for one candidate over another. When a person has a much more positive attitude towards one candidate compared to another (e.g., they dislike one candidate, or they dislike both candidates but dislike one more strongly than another), then this person is much more likely to vote than if they like both candidates (Holbrook et al., 2001).

7.4.2 Civic Activism

Research has also considered when public opinion causes civic activism. Recent years

have seen examples of regime changes where public opinion erupts into protest and causes dramatic shifts in governance. Yet in other cases, a clear majority may not approve of a politician and their policies, and yet the population refrains from protest and does not take drastic action to remove a politician from office.

One general principle is that public opinion prompts civic activism the most when people are dissatisfied with their current life circumstances and want to take action to change them (Barnes & Kaase, 1979; Rosenstone & Hansen, 1993; see also Chapter 31). For example, dissatisfaction with life circumstances can lead people to join activist groups that they believe will help address these issues (Hansen, 1985). However, it is not necessary for life circumstances to actually take a turn for the worse in order for them to spark activism. The simple appearance that things may become worse in the future can also inspire activism. For example, when women who were in favour of legalised abortion received a letter stating that politicians were working to pass undesirable policies (e.g., increasing restrictions on abortion), these women were more likely to make financial organisation contributions to an promised to work to prevent these policy changes (J. M. Miller & Krosnick, 2004). Interestingly, in this study, the threat of undesirable policy changes (i.e., that would restrict people's rights) was more likely to provoke activism than the opportunity to become involved in desirable policy changes (i.e., that would help people gain additional rights). As with policy voting, the perceived importance of a policy issue moderates these effects. People who perceive a policy issue as personally important are particularly likely to mobilise in response to the threat of undesirable change (J. M. Miller, Krosnick, Holbrook, et al., 2016).

7.4.3 Government Attention and Action

Moving beyond the influence of public opinion on individual behaviour, another critical question is whether people in government pay attention to public opinion, and whether public opinion shapes their judgements and behaviour accordingly.

Research generally indicates that public opinion affects public policy. When public opinion shifts, policy often changes in response (Page & Shapiro, 1983). For example, state governments in the USA were highly responsive to public opinion on LGBTQ rights over the past decades in terms of enacting relevant policies (e.g., non-discrimination laws; Lax & Phillips, 2009). Public opinion has a particularly strong influence when issues are salient to the public, and can even outweigh pressure from interest groups (Burstein, 2003).

Another example of government responsiveness to public opinion comes from research on issues that the public deems of high national importance. Generally, this research indicates that the issues that the American public prioritises receive greater recognition from politicians. For example, judgements of the national importance of an issue affect candidates' campaign strategies, such as the attention devoted to these issues during campaign speeches (Burden & Rice Sanberg, 2003). Politicians also tend to shift their stated positions to move closer to the position of the public when an issue is given greater national importance (Campbell, 1983). It is unclear whether politicians' decisions are a direct response to the public's ratings of national importance (e.g., from viewing the results of polls on this topic), or whether they would have prioritised these issues because of other factors. Nevertheless. it is clear that public opinion can influence politicians' agendas.

7.5 Emerging Questions in Research on Public Opinion

Finally, we consider some emerging questions regarding public opinion that can inspire future research directions.

7.5.1 (Mis)perceiving Public Opinion

A handful of recent studies investigate whether people perceive public opinion on key issues accurately and suggest that beliefs about public opinion may not always match reality. For example, some recent studies suggest that the public tends to underestimate the extent to which their fellow citizens believe that global warming is happening (Abeles et al., 2019; Ehret et al., 2018; Leviston et al., 2012; Mildenberger & Tingley, 2019; see also Chapter 34). Future research could explore the extent to which (mis)perceptions of public opinion regarding various attitudes and beliefs shape people's support for policies and political participation, as well as how misperceptions can be corrected and the consequences of correcting these misperceptions.

7.5.2 Motivated Reasoning in Public Opinion Processes

Research on motivated reasoning, or the motivation to arrive at a personally desirable conclusion (Kunda, 1990), suggests that people's existing opinions on topics can prompt them to process information (e.g., scientific evidence) in a biased manner. Much of the research suggests that once a person has an opinion on a political topic, they are likely to disregard information that contradicts this pre-existing opinion. For example, people are less likely to read policy arguments that contradict a prior opinion on a political issue (e.g., gun control, affirmative action) than one that is congruent with their prior attitude, and

people spend more time producing counterarguments when an argument conflicts with a prior attitude (Taber & Lodge, 2006). Other research suggests that prior opinions on a policy issue can affect people's trust in public opinion polls, such that people find polls less credible when they report that the majority view conflicts with one's own view on a sociopolitical issue (Kuru et al., 2017). Thus, future research could examine how to encourage people and politicians to process information about public opinion in an unbiased manner.

7.5.3 Technological Advances in Measuring Public Opinion

Recent studies have explored ways to measure public opinion that leverage upon developments in technology (e.g., Big Data). For example, researchers conducted a sentiment analysis of Twitter messages about the presidential candidates in the 2008 US election by measuring the ratio of positive versus negative messages containing the keywords Obama and McCain (O'Connor et al., 2010). They found that the sentiment analysis correlated highly with people's reports that they would vote for Barack Obama or John McCain in 2008, as well as presidential approval ratings for Barack Obama in 2008–2009. Other research has used internet search trends to capture public attentiveness to different policy issues (e.g., healthcare, global warming; Ripberger, 2011).

At first glance, it might seem that these alternative methods could be used to assess public opinion in the future and reduce the costs, both time and monetary, of assessing and conducting research on public opinion. However, research on the importance of survey sampling suggests that collecting data from non-probability samples on the Internet could be problematic, resulting in a biased sample with particular characteristics (Chang & Krosnick, 2009). Thus, scholars

should be cautious when it comes to alternative methods of assessing public opinion that do not rely on probability sampling. In the future, research could consider other aspects of the role technology plays in public opinion, such as how technological advancements shape how polls are communicated to the public and the effects of these different methods of communication on public trust in – and acceptance of – polls.

7.6 Conclusion

Decades of research offer insight into why people form opinions on a political topic and the factors that shape the particular direction that these opinions take. Research also suggests that these opinions drive political participation and play a key role in the political process. Understanding how public opinion develops can help people and politicians alike to understand what underlies this potent motivator of political behaviour as well as how it can be influenced.

References

- Abeles, A. T., Howe, L. C., Krosnick, J. A., & MacInnis, B. (2019). Perception of public opinion on global warming and the role of opinion deviance. *Journal of Environmental Psychology*, 63, 118–129. https://doi.org/10.1016/j.jenvp.2019.04.001
- Albertson, B. L. (2011). Religious appeals and implicit attitudes. *Political Psychology*, *32*(1), 109–130. https://doi.org/10.1111/j.1467-9221 .2010.00793.x
- Alford, J. R., Funk, C. L., & Hibbing, J. R. (2005). Are political orientations genetically transmitted? *American Political Science Review*, 99(2), 153–167. https://doi.org/10.1017/S0003055405051579
- Anand, S., & Krosnick, J. A. (2003). The impact of attitudes toward foreign policy goals on public preferences among presidential candidates:

- A study of issue publics and the attentive public in the 2000 U.S. presidential election. *Presidential Studies Quarterly*, *33*(1), 31–71. https://doi.org/10.1177/0360491802250541
- Asch, S. E. (1951). Effects of group pressure on the modification and distortion of judgments. In G. E. Swanson, T. M. Newcomb, & E. L. Hartley (Eds.), *Readings in social psychology* (2nd ed., pp. 2–11). Holt. https://doi.org/10.1525/9780520313514-017
- Barnes, S. H., & Kaase, M. (1979). *Political action: Mass participation in five Western democracies*.

 SAGE.
- Bélanger, É., & Meguid, B. M. (2008). Issue salience, issue ownership, and issue-based vote choice. *Electoral Studies*, 27(3), 477–491. https://doi.org/10.1016/j.electstud.2008.01.001
- Bell, E., Schermer, J. A., & Vernon, P. A. (2009). The origins of political attitudes and behaviours: An analysis using twins. *Canadian Journal of Political Science*, 42(4), 855–879. https://doi.org/ 10.1017/S0008423909990060
- Bishop, G. F., Oldendick, R. W., & Tuchfarber, A. J. (1980). Experiments in filtering political opinions. *Political Behavior*, 2(4), 339–369. https://doi.org/10.1007/BF00990173
- Bishop, G. F., Tuchfarber, A. J., & Oldendick, R. W. (1986). Opinions on fictitious issues: The pressure to answer survey questions. *Public Opinion Quarterly*, 50(2), 240–250. https://doi.org/10.1086/268978
- Brandt, M. J., & Wetherell, G. A. (2012). What attitudes are moral attitudes? The case of attitude heritability. *Social Psychological and Personality Science*, *3*(2), 172–179. https://doi.org/10.1177/1948550611412793
- Brody, R. A., & Page, B. I. (1972). Comment: The assessment of issue voting. *American Political Science Review*, 66(2), 450–458.
- Burden, B. C., & Rice Sanberg, J. N. (2003). Budget rhetoric in presidential campaigns from 1952 to 2000. *Political Behavior*, 25(2), 92–118. https://doi.org/10.1023/A:1023825212333
- Burstein, P. (2003). The impact of public opinion on public policy: A review and an agenda. *Political Research Quarterly*, 56(1), 29–40. https://doi.org/10.1177/106591290305600103

- Cacioppo, J. T., & Petty, R. E. (1979). Effects of message repetition and position on cognitive response, recall, and persuasion. *Journal of Personality and Social Psychology*, 37(1), 97–109. https://doi.org/10.1037/0022-3514.37.1.97
- Campbell, J. E. (1983). Ambiguity in the issue positions of presidential candidates: A causal analysis. *American Journal of Political Science*, 27(2), 284–293. https://doi.org/10.2307/2111018
- Chang, L., & Krosnick, J. A. (2009). National surveys via RDD telephone interviewing versus the internet: Comparing sample representativeness and response quality. *Public Opinion Quarterly*, *73*(4), 641–678. https://doi.org/10.1093/poq/nfp075
- Claassen, R. L. (2007). Ideology and evaluation in an experimental setting: Comparing the proximity and the directional models. *Political Research Quarterly*, 60(2), 263–273. https://doi.org/10.1177/1065912907302050
- Claassen, R. L. (2009). Direction versus proximity: Amassing experimental evidence. *American Politics Research*, 37(2), 227–253. https://doi.org/ 10.1177/1532673X08321756
- Conover, P. J. (1988). Feminists and the gender gap. *The Journal of Politics*, *50*(4), 985–1010. https://doi.org/10.2307/2131388
- Converse, P. E. (1964). The nature of belief systems in mass publics. In D. E. Apter (Ed.), *Ideology and discontent* (pp. 206–261). The Free Press of Glencoe. https://doi.org/10.1080/08913810608443650
- Crespi, L. P. (1948). The interview effect in polling. *Public Opinion Quarterly*, 12(1), 99–111. https://doi.org/10.1086/265924
- Dahlgaard, J. O., Hansen, J. H., Hansen, K. M., & Larsen, M. V. (2017). How election polls shape voting behaviour. *Scandinavian Political Studies*, 40(3), 330–343. https://doi.org/10.1111/1467-9477.12094
- Deutsch, M., & Gerard, H. B. (1955). A study of normative and informational social influences upon individual judgment. *The Journal of Abnormal and Social Psychology*, 51(3), 629–636. https://doi.org/10.1037/h0046408
- Downs, A. (1957). An economic theory of political action in a democracy. *The Journal of Political*

- Economy, 65(2), 135–150. https://doi.org/10.1086/257897
- Eagly, A. H., & Chaiken, S. (1993). *The psychology of attitudes*. Harcourt, Brace, Jovanovich.
- Ehret, P. J., Van Boven, L., & Sherman, D. K. (2018). Partisan barriers to bipartisanship: Understanding climate policy polarization. *Social Psychological and Personality Science*, 9(3), 308–313. https://doi.org/10.1177/1948550618758709
- Feldman, S. (1988). Structure and consistency in public opinion: The role of core beliefs and values. *American Journal of Political Science*, 32(2), 416–440. https://doi.org/10.2307/2111130
- Flores, A. R., Haider-Markel, D. P., Lewis, D. C., Miller, P. R., Tadlock, B. L., & Taylor, J. K. (2018). Challenged expectations: Mere exposure effects on attitudes about transgender people and rights. *Political Psychology*, 39(1), 197–216. https://doi.org/10.1111/pops.12402
- Fournier, P., Blais, A., Nadeau, R., Gidengil, E., & Nevitte, N. (2003). Issue importance and performance voting. *Political Behavior*, 25(1), 51–67. https://doi.org/10.1023/A:1022952311518
- Frankovic, K., Johnson, T., & Stavrakantonaki, M. (2017). Freedom to conduct opinion polls: A 2017 worldwide update. https://www.esomar.org/uploads/public/library/news/ESOMAR-WAPOR_Freedom-to-Conduct-Opinion-Polls.pdf
- Gallup, G., & Rae, S. F. (1940). Is there a bandwagon vote? *Public Opinion Quarterly*, 4(2), 244–249. https://doi.org/10.1086/265397
- Gelpi, C., Feaver, P. D., & Reifler, J. (2006). Success matters: Casualty sensitivity and the war in Iraq. *International Security*, 30(3), 7–46. https://doi.org/10.1162/016228805775969573
- Gerber, A. S., Green, D. P., & Larimer, C. W. (2008). Social pressure and voter turnout: Evidence from a large-scale field experiment. American Political Science Review, 102(1), 33–48. https://doi.org/10.1017/S000305540808009X
- Gilens, M. (1996). 'Race coding' and White opposition to welfare. *American Political Science Review*, 90(3), 593–604. https://doi.org/10.2307/2082611

- Grillo, A. (2017). Risk aversion and bandwagon effect in the pivotal voter model. *Public Choice*, 172(3), 465–482. https://doi.org/10.1007/s11127-017-0457-5
- Hansen, J. M. (1985). The political economy of group membership. *American Political Science Review*, 79, 79–96. https://doi.org/10.2307/ 1956120
- Hatemi, P. K., Gillespie, N. A., Eaves, L. J., et al. (2011). A genome-wide analysis of liberal and conservative political attitudes. *Journal of Politics*, 73(1), 271–285. https://doi.org/10.1017/ S0022381610001015
- Herbst, S. (1993). The meaning of public opinion: Citizens' constructions of political reality. *Media, Culture & Society*, *15*(3), 437–454. https://doi.org/10.1177/016344393015003007
- Herbst, S. (1998). *Reading public opinion: How political actors view the Democratic process*. University of Chicago Press.
- Hildum, D. C., & Brown, R. W. (1956). Verbal reinforcement and interviewer bias. *Journal of Abnormal and Social Psychology*, 53(1), 108–111. https://doi.org/10.1037/h0040518
- Holbrook, A. L., Krosnick, J. A., Visser, P. S.,
 Gardner, W. L., & Cacioppo, J. T. (2001).
 Attitudes toward presidential candidates and political parties: Initial optimism, inertial first impressions, and a focus on flaws. *American Journal of Political Science*, 45(4), 930–950.
 https://doi.org/10.2307/2669333
- Howe, L. C., & Krosnick, J. A. (2017). Attitude strength. Annual Review of Psychology, 68, 327–351. https://doi.org/10.1146/annurev-psych-122414-033600
- Insko, C. A. (1965). Verbal reinforcement of attitude. *Journal of Personality and Social Psychology*, 2(4), 621–623. https://doi.org/10 .1037/h0022485
- Jarvis, W. B. G., & Petty, R. E. (1996). The need to evaluate. *Journal of Personality and Social Psychology*, 70(1), 172–194. https://doi.org/10 .1037/0022-3514.70.1.172
- Jones, P. E., Brewer, P. R., Young, D. G., Lambe, J. L., & Hoffman, L. H. (2018). Explaining public opinion toward transgender people, rights, and candidates. *Public Opinion Quarterly*,

- 82(2), 252–278. https://doi.org/10.1093/poq/nfy009
- Kandler, C., Bleidorn, W., & Riemann, R. (2012).
 Left or right? Sources of political orientation:
 The roles of genetic factors, cultural transmission, assortative mating, and personality. *Journal of Personality and Social Psychology*, 102(3), 633–645. https://doi.org/10.1037/a0025560
- Kelman, H. C. (1958). Compliance, identification, and internalization three processes of attitude change. *Journal of Conflict Resolution*, 2(1), 51–60. https://doi.org/10.1177/002200275800200106
- Kelman, H. C. (2006). Interests, relationships, identities: Three central issues for individuals and groups in negotiating their social environment. *Annual Review of Psychology*, 57, 1–26. https://doi.org/10.1146/annurev.psych.57.102904.190156
- Kim, Y. M. (2009). Issue publics in the new information environment: Selectivity, domain specificity, and extremity. *Communication Research*, 36(2), 254–284. https://doi.org/10 .1177/0093650208330253
- Kinder, D. R. (1998). Opinion and action in the realm of politics. In D. Gilbert, S. T. Fiske, & G. Lindsey (Eds.), *Handbook of social psychology* (4th ed.; pp. 778–867). McGraw Hill.
- Krosnick, J. A. (1988). The role of attitude importance in social evaluation: A study of policy preferences, presidential candidate evaluations, and voting behavior. *Journal of Personality and Social Psychology*, 55(2), 196–210. https://doi.org/10.1037/0022-3514.55.2 .196
- Krosnick, J. A. (1990). Government policy and citizen passion: A study of issue publics in contemporary America. *Political Behavior*, *12*(1), 59–92. https://doi.org/10.1007/BF00992332
- Krosnick, J. A., Holbrook, A. L., Berent, M. K., et al. (2002). The impact of 'no opinion' response options on data quality: Non-attitude reduction or an invitation to satisfice? *Public Opinion Quarterly*, 66(3), 371–403. https://doi.org/10.1086/341394

- Krosnick, J. A., & Milburn, M. A. (1990).
 Psychological determinants of political opinionation. *Social Cognition*, 8(1), 49–72.
 https://doi.org/10.1521/soco.1990.8.1.49
- Krosnick, J. A., Narayan, S., & Smith, W. R. (1996). Satisficing in surveys: Initial evidence. *New Directions for Evaluation*, 70, 29–44. https://doi.org/10.1002/ev.1033
- Krosnick, J. A., & Petty, R. E. (1995). Attitude strength: An overview. In J. A. Krosnick & R. E.
 Petty (Eds.), Attitude strength: Antecedents and consequences (pp. 1–24). Lawrence Erlbaum Associates, Inc.
- Kunda, Z. (1990). The case for motivated reasoning.
 Psychological Bulletin, 108(3), 480–498. https://doi.org/10.1037/0033-2909.108.3.480
- Kuru, O., Pasek, J., & Traugott, M. W. (2017). Motivated reasoning in the perceived credibility of public opinion polls. *Public Opinion Quarterly*, 81(2), 422–446. https://doi.org/10 .1093/poq/nfx018
- Lacy, D., & Paolino, P. (2010). Testing proximity versus directional voting using experiments. *Electoral Studies*, 29(3), 460–471. https://doi.org/ 10.1016/j.electstud.2010.04.008
- Lax, J. R., & Phillips, J. H. (2009). Gay rights in the states: Public opinion and policy responsiveness. *American Political Science Review*, 103(3), 367–386. https://doi.org/10.1017/S0003055409990050
- Leviston, Z., Walker, I., & Morwinski, S. (2012). Your opinion on climate change might not be as common as you think. *Nature Climate Change*, 3 (4), 334–337. https://doi.org/10.1038/ nclimate1743
- Lippmann, W. (1922). Public opinion. Harcourt, Brace and Company. https://doi.org/10.4324/ 9781315127736
- Madonna, G. T., & Young, M. (2002). *The first political poll*. https://www.fandm.edu/uploads/files/271296109834777015-the-first-political-poll-6-18-2002.pdf
- Mildenberger, M., & Tingley, D. (2019). Beliefs about climate beliefs: The importance of second-order opinions for climate politics. *British Journal of Political Science*, 49(4), 1279–1307. https://doi.org/10.1017/S0007123417000321

- Miller, J. M., & Krosnick, J. A. (2004). Threat as a motivator of political activism: A field experiment. *Political Psychology*, 25(4), 507–523. https://doi.org/10.1111/j.1467-9221.2004.00384.x
- Miller, J. M., Krosnick, J. A., & Fabrigar, L. R. (2016). The origins of policy issue salience: Personal and national importance impact on behavioral, cognitive, and emotional issue engagement. In J. A. Krosnick, I.-C. A. Chang, & T. A. Stark (Eds.), *Political psychology: New explorations* (pp. 125–171). Taylor & Francis. https://doi.org/10.4324/9781315445687
- Miller, J. M., Krosnick, J. A., Holbrook, A., Tahk, A., & Dionne, L. (2016). The impact of policy change threat on financial contributions to interest groups. In J. A. Krosnick, I.-C. A. Chang, & T. A. Stark (Eds.), *Political* psychology: New explorations (pp. 172–202). Taylor & Francis. https://doi.org/10.4324/ 9781315445687
- Miller, R. L. (1976). Mere exposure, psychological reactance and attitude change. *Public Opinion Quarterly*, 40(2), 229–233. https://doi.org/10.1086/268290
- Morton, R. B., Muller, D., Page, L., & Torgler, B. (2015). Exit polls, turnout, and bandwagon voting: Evidence from a natural experiment. *European Economic Review*, 77, 65–81. https://doi.org/10.1016/j.euroecorev.2015.03.012
- Mueller, J. E. (1973). War, presidents, and public opinion. John Wiley & Sons, Ltd.
- Mutz, D. C. (1992). Impersonal influence: Effects of representations of public opinion on political attitudes. *Political Behavior*, *14*(2), 89–122. https://doi.org/10.1007/BF00992237
- O'Connor, B., Balasubramanyan, R., Routledge, B. R., & Smith, N. A. (2010). From tweets to polls: Linking text sentiment to public opinion time series. ICWSM 2010 Proceedings of the 4th International AAAI Conference on Weblogs and Social Media. https://www.aaai.org/ocs/index.php/ICWSM/ICWSM10/paper/viewFile/1536/1842
- Oskarsson, S., Cesarini, D., Dawes, C. T., et al. (2015). Linking genes and political orientations: Testing the cognitive ability as mediator

- hypothesis. *Political Psychology*, *36*(6), 649–665. https://doi.org/10.1111/pops.12230
- Page, B., & Shapiro, R. (1983). Effects of public opinion on policy. *American Political Science Review*, 77(1), 175–190. https://doi.org/10.2307/ 1956018
- Peterson, B. E., Doty, R. M., & Winter, D. G. (1993). Authoritarianism and attitudes toward contemporary social issues. *Personality and Social Psychology Bulletin*, *19*(2), 174–184. https://doi.org/10.1177/0146167293192006
- Pratto, F., Sidanius, J., Stallworth, L. M., & Malle,
 B. F. (1994). Social dominance orientation:
 A personality variable predicting social and political attitudes. *Journal of Personality and Social Psychology*, 67(4), 741–763. https://doi.org/10.1037/0022-3514.67.4.741
- Ripberger, J. T. (2011). Capturing curiosity: Using internet search trends to measure public attentiveness. *Policy Studies Journal*, *39*(2), 239–259. https://doi.org/10.1111/j.1541-0072 .2011.00406.x
- Rosenstone, S. J., & Hansen, J. M. (1993).

 Mobilization, participation, and democracy in America. Macmillan.
- Rothschild, D., & Malhotra, N. (2014). Are public opinion polls self-fulfilling prophecies? *Research and Politics*, *1*(2), 1–10. https://doi.org/10.1177/2053168014547667
- Schuman, H., & Presser, S. (1981). Questions and answers in attitude surveys: Experiments on question form, wording and context. Academic Press.
- Sherif, M. (1936). *The psychology of social norms*. Harper.
- Sidanius, J., Mitchell, M., Haley, H., & Navarrete, C. D. (2006). Support for harsh criminal sanctions and criminal justice beliefs: A social dominance perspective. *Social Justice Research*, 19(4), 433–449. https://doi.org/10.1007/s11211-006-0026-4
- Simon, H. A. (1954). Bandwagon and underdog effects and the possibility of election predictions. *Public Opinion Quarterly*, *18*(3), 245–253. https://doi.org/10.1086/266513

- Skinner, B. F. (1957). *Verbal behavior*. Appleton-Century-Crofts. https://doi.org/10.2307/411334
- Sniderman, P. M., Hagen, M. G., Tetlock, P. E., & Brady, H. E. (1986). Reasoning chains: Causal models of policy reasoning in mass publics. *British Journal of Political Science*, 16(4), 405–430. https://doi.org/10.1017/S0007123400004506
- Staats, A. W., & Staats, C. K. (1958). Attitudes established by classical conditioning. *Journal of Abnormal and Social Psychology*, 57(1), 37–40. https://doi.org/10.1037/h0042782
- Taber, C. S., & Lodge, M. (2006). Motivated skepticism in the evaluation of political beliefs. *American Journal of Political Science*, 50(3), 755–769. https://doi.org/10.1111/j.1540-5907.2006.00214.x
- Tetlock, P. E. (1986). A value pluralism model of ideological reasoning. *Journal of Personality and Social Psychology*, 50(4), 819–827. https://doi.org/10.1037/0022-3514.50.4.819
- Tomz, M., & Van Houweling, R. P. (2008). Candidate positioning and voter choice. *American Political Science Review*, 102(3), 308–318. https://doi.org/10.1017/ S0003055408080301
- Visser, P. S., Krosnick, J. A., & Simmons, J. P. (2003). Distinguishing the cognitive and behavioral consequences of attitude importance and certainty: A new approach to testing the common-factor hypothesis. *Journal of Experimental Social Psychology*, 39(2), 118–141. https://doi.org/10.1016/S0022-1031(02) 00522-X
- Waterton, J., & Lievesley, D. (1987). Attrition in a panel study of attitudes. *Journal of Official Statistics*, *3*(3), 267–282.
- Zajonc, R. B. (1968). Attitudinal effects of mere exposure. *Journal of Personality and Social Psychology*, 9(2), 1–27. https://doi.org/10.1037/h0025848
- Zajonc, R. B. (2001). Mere exposure: A gateway to the subliminal. *Current Directions in Psychological Science*, 10(6), 224–228. https://doi .org/10.1111/1467-8721.00154