Narrative Review Article

Applications of Prospect Theory to Electoral Behavior

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ABSTRACT

Prospect Theory is a descriptive model of behaviour under varying conditions of uncertainty, linking an individual's risk preference to their reference point and to other behavioural patterns associated with risk. Although Prospect Theory was initially developed as a model of individual decision making, Prospect Theory has also been applied to organizational contexts, making it relevant to the study of electoral behaviour. The theory has been used to examine several areas in electoral behaviour, such as vote buying, party strategies, voter participation, leader's strategies and reform requirements, often complementing existing electoral models. Prospect Theory concepts such as loss-aversion and reference dependence recur across this literature, particularly in discussions of voter preferences and responses to risk. This paper first presents an overview of Prospect Theory alongside relevant advancements to the theory. It then organizes applications of Prospect Theory to electoral behaviour into thematic sections, while situating these applications within broader electoral behaviour research. This review concludes by highlighting areas where further empirical research may be beneficial to understanding Prospect Theory's explanatory value in electoral behaviour.

Keywords: Prospect Theory; Electoral Behaviour; Loss Aversion; Voting Behaviour; Political Decision-Making

INTRODUCTION

In democratic systems, electoral behaviour is central to understanding how voters, parties, and political actors shape political outcomes (1). The decisions of elected officials influence democratic nations' economic, social, and political policy, making electoral outcomes an important subject of political analysis (1). As such, a sub-field of political science emerged to study electoral behaviour (1). Electoral behaviour refers to the actions of voters and political actors during the electoral process, including party strategies, voter decisions and voter turnout (1).

Personal preferences, party ideals, leader characteristics, societal status quo, institutional limitations and economic and social conditions are all important factors that shape the electoral process. Considering these aspects during the decision-making process often creates conditions of uncertainty that may not follow rational models, making these decisions difficult to predict (2-4). During the electoral decision-making process, certainty seldom occurs, necessitating frameworks to represent people's decisions under risk. Many applications of normative models of uncertainty already existed within early electoral behaviour models, such as Expected Utility Theory (5). However, normative models of uncertainty often misrepresent reality (6). This paved the way for the development of descriptive models culminating with the arrival of Prospect Theory (6, 7). Prospect Theory modelled human irrationality

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while sacrificing some mathematical convenience (6, 7). It first described how a general attitude towards risk changes by comparing one's current position with one's expectations. It then introduced the idea of probability weighting, being people's tendency to overestimate small probabilities and underestimate moderate to high ones (6).

The principles of Prospect Theory also led to several effects and explanations. These include the endowment effect, the certainty effect, and the reflection effect (7-9). These effects are closely associated with Prospect Theory as they are a direct application of its properties or can be uniquely explained by it (6-9). This different modelling of the attitudes towards risk and its effects was then applied to several fields, like finance, evolutionary biology and political science (7, 10, 11).

Even though all the applications of Prospect Theory to these fields have not been discovered, several existing electoral phenomena can be linked to Prospect Theory explanations. Specifically, phenomena such as voter coordination and overconfidence may be usefully examined through Prospect Theory due to their involvement of political decision making under uncertainty, although not all such studies explicitly adopt a Prospect Theory framework (12-15). This review seeks to consolidate existing literature on Prospect Theory applications to electoral behaviour, aiming to offer a structured overview of the topic and highlighting avenues for future research.

WHAT IS PROSPECT THEORY?

Prospect Theory is a modification of classical Expected Utility Theory models, designed to be a descriptive account of people's choices under different levels of uncertainty, rather than a normative theory of people's behaviour under uncertainty (6). Prospect Theory states that people will act risk-averse in the domain of gains, while acting risk-seeking in the domain of losses, with the person's domain being related to their position according to the reference point (6, 7).

Prior models of uncertainty proposed that individuals acted logically to try to maximize their utility (16). Such models were normative and based on an assumption made for mathematical convenience which stated that humans followed perfect logic. Prospect Theory is an alternative to classical models of uncertainty, which are based on Expected Utility. It resolved some of the basic mathematical assumptions to make economic modelling more convenient, mainly addressing the issue of basic human rationality (6). The assumption that it tackled was that people dealt with uncertainty by calculating what choice was most likely to yield the highest result, this is also the basis of Expected Utility Theory.

Expected Utility Theory postulated that individuals made choices under uncertainty by maximizing expected utility, calculated as the probability-weighted value of potential outcomes. In this context utility refers to the subjective value or satisfaction to an individual of an outcome while a prospect refers to a risky option or lottery consisting of multiple potential outcomes and their associated probabilities (6). However, empirical violations of the independence axiom, which denoted that a user's preference between lotteries would remain unchanged when both lotteries are altered proportionally, highlighted the limitations of Expected Utility Theory, contributing to the development of Prospect Theory (6, 16).

Allais Paradox is the aforementioned violation of the axiom, challenging Expected Utility Theory and supporting the development of Prospect Theory (6, 17). It was relevant to the development of Prospect Theory as it showed that mathematically equivalent gambles could be interpreted differently, illustrating much of the reasoning that drove Prospect Theory (6, 17). From a Prospect Theory perspective, Allais Paradox can be interpreted through the certainty effect and probability weighting, as individuals tend to overweight certain outcomes or low probability outcomes, while also underweighting medium to high probability outcomes (6, 7, 17).

Prospect Theory posits that individuals are risk-averse in the domain of gains, and risk-seeking in the domain of losses. This can be represented by an S-shaped utility function, as shown in Figure 1, which is concave for gains, and convex for losses (6). In mathematical terms, concavity means that the function's gradient decreases as the input increases, while convexity means that the graph's gradient increases as the input increases. Applied to Prospect Theory, this means that individuals display diminished sensitivity to increasingly large gains and increasingly large losses. The reference point acts as the origin of the "S" shaped value function. This point tends to coincide with the status quo, with Kahneman and Tversky saying that it "usually corresponds to the current asset position" (6). It is important to note, however, that the reference point corresponds to the person's believed asset position, further influenced by their expectations and past asset positions. The reference point may also be based solely on expectation of the happening of an event. The reference point is also capable of shifting due to

factors such as a prolonged change in circumstances (6).

Whether something is in the domain of gains or losses depends on its position relative to the reference point. The area to the right of the reference point in the graph is the domain of gains, while the left is the domain of losses (6). Even though Prospect Theory states that people are risk seeking in the domain of losses, it is important to note that being risk-seeking does not cancel out loss aversion. Loss aversion denotes that the emotional toll incurred due to losses is greater than the emotional reward incurred through gains. This key idea of Prospect Theory can be seen in the graphical representation of the function, since the curve in the domain of losses is steeper than the one in the domain of gains (6, 7). The impacts on risk-tolerance represented by this graph are also the cause of one of the subsidiary effects of Prospect Theory, known as the Reflection Effect (6, 8). It constitutes the fact that once shifted from the domain of gains to the domain of losses, people tend to prefer the direct opposite of their original choice. The reflection effect therefore illustrates how changes between domains can reverse risk preferences, further distinguishing how Prospect Theory differs from the previous normative behavioural models (6, 7) (Figure 1).

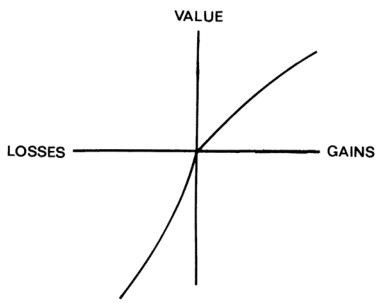

Figure 1. *Prospect Theory Value Function. The x-axis represents position relative to the reference point, which is shown as the origin. The domain of losses is shown to the left of the origin while the domain of gains is shown to the right. The y-axis represents the subjective value. The curve is concave in the domain of gains, indicating diminished sensitivity to increasingly large gains, and convex for losses, indicating diminished sensitivity to increasingly large losses. Its steeper slope for losses reflects loss aversion, meaning that losses have a greater psychological impact than equivalent gains (6).*

Even though the 1979 paper only included a description and graphical representation of the function, later refinements by Tversky and Kahneman in 1992 formalised the value function (18):

$$v(x) = \begin{cases} x^{\alpha} & x \geq 0 \\ -\lambda(-x)^{\beta} & x < 0 \end{cases}$$

This function states that individuals evaluate the value [v(x)] of an outcome [x] relative to the reference point. For gains [$x \geq 0$, $0 < \alpha < 1$], the function is concave, reflecting diminishing sensitivity to increasingly large gains. For losses, the function is convex, reflecting diminishing sensitivity to increasingly large losses, while λ captures loss aversion by making losses weigh more heavily than equivalent gains [$x < 0$; $< \beta < 1$, $\lambda > 1$] (18).

Before the analysis of a prospect, Prospect Theory posits a state relating to the processing of the information. This state is called editing, through which the processes of coding, combination, segregation, cancellation, simplification and detection of dominance simplify the prospect to allow for evaluation (6). Some of these processes such as detection of dominance and simplification are subjective, making it important to note that the prospects used in the experiments supporting the original Prospect Theory paper were formatted so that the editing phase was already completed (6). The Endowment Effect, originating from the principles of Prospect Theory, states that people value objects that they own more than identical objects that they do not own. This effect is related to the Prospect Theory idea of loss-aversion.

As losses are weighted more heavily than gains (6), people overvalue assets that they own, leading to the Endowment Effect (9). Kahneman, Knetsch and Thaler demonstrated this effect through trading experiments with student participants to show how possessing an object could increase its apparent value (9, 19). The Endowment Effect causes owners to be unlikely to part with possessions for a lower price than what they paid to obtain them (9). This is shown by Prospect Theory not only through loss aversion, but because people enter the domain of gains when they receive an object, encouraging risk aversion. This, alongside the higher mental toll from losses, means that people get more rapidly used to gains than to losses, causing the reference point to shift more quickly towards a placement in the domain of gain than towards a placement in the domain of losses (6, 7, 9).

Prospect Theory also covers a phenomenon known as probability weighting. This is the tendency for people to overestimate small probabilities and underestimate medium to high probabilities when it comes to risk (6, 7). These effects are associated with the risk aversion in the domain of gains and due to the loss-

aversion phenomenon. They are also the causes of the aforementioned certainty effect, due to the overweighting of small probabilities (7).

After its development, Prospect Theory was applied across several fields (2, 7, 10, 11, 20-24). It contributed to the treatment of risk in finance and economics and had several applications through diverse fields like political science, or even evolutionary sciences (7, 10, 11). It also contributed to later work linking behavioural economics and neuroscience, while also developing a new model of risk (7). Effects related to Prospect Theory, such as the endowment effect explained reluctant stock behaviour (9), and it was also discovered that collectives follow Prospect Theory behaviour (4). For evolutionary sciences, it was used to explain risk preferences as potentially adaptive behaviours (11). Research done by McDermott, Fowler, and Smirnov also suggested that Prospect Theory-consistent risk preferences were evolutionarily optimal. By setting the amount of food needed to survive as the reference point, they found that Prospect Theory risk preferences lead to optimal foraging, increasing an individual's fitness (11). This suggestion towards Prospect Theory's evolutionary foundations then supports its applications across individuals, and the robustness of these tendencies (11).

GENERAL APPLICATIONS OF PROSPECT THEORY TO POLITICAL SCIENCE

Even though Prospect Theory is an individual model of behaviour, current research shows its applications to collectives (4). Whyte conducted an experiment comparing the behaviours of individuals and groups in terms of decision-making in risky investment scenarios involving prior losses to examine their escalation of commitment (20). Whyte found that groups performed the same loss-averse and risk-seeking in the domain of losses patterns as individuals did, suggesting Prospect Theory's persistence in collectives (20). Several other studies have emerged to address this issue. Vis presents a thorough collection of papers that examine this (4).

One implication of Prospect Theory for voter behaviour concerns the relationship between the status quo and the reference point. In this context, the status quo is defined as the current social, economic, and cultural position of a nation and population (10). In most cases, the status quo aligns with the reference point (6, 10), which may lead voters to resist social reform (4). This phenomenon may be caused by voters' previously discussed loss aversion, as voters believe that the potential losses from changing the status quo outweigh the potential gains (4, 6, 10).

However, sometimes the status quo may fall below the reference point, supporting the risk-seeking behaviour required for substantial societal reform (6, 7, 10). This may happen either due to an unfavourable status quo, or due to overwhelming potential gains which reform would offer, causing the reference point to shift upwards and above the status quo (6, 7). This does not require reform to involve overt risk seeking behaviour; in many scenarios the reform may be seen as the safest choice. Finally, it is important to remember the previously discussed subjective nature when deciding one's domain when applying it to electoral behaviour (6, 7).

Significant voter participation is another phenomenon that can be explained through Prospect Theory. Several voters participate in major elections, such that one's individual vote would most likely have an insignificant impact (5). The time spent on voting tends to have a greater cost than the potential utility of one's vote, however major elections still have a large participation rate (5). Prospect Theory's probability weighting addresses this phenomenon through people overestimating the small impact of their vote (5, 6). Herrmann et al.'s Prospect Theory model of voter participation shows how models of voter participation based on Prospect Theory more accurately predict voter participation than traditional models (5).

Similarly, strategic coordination theories suggest that voters tend to avoid supporting unlikely candidates so as not to waste their vote (13). From a Prospect Theory perspective, this behaviour closely aligns with the Prospect Theory concept of loss-aversion, due to an ineffective vote potentially being seen as a loss relative to the expected political impact. This suggests that strategic voting could reflect not only coordination incentives, but also an aversion to electorally ineffective choices.

Related work also suggests loss-aversion as an explanation for electoral behaviour such as the bandwagon effect in costly elections. Leontiou et al. showed how through the application of loss-aversion, and through the usage of an endogenous reference point, conditions for the bandwagon effect occurred in every equilibrium (25). The bandwagon effect refers to lower voter abstentions in relation to supporters for likely winners. This can be explained as the potential loss from abstaining for supporters of expected winners is greater than the potential gains from participation of the supporters of the underdog. The cause of this can be attributed as the fact that the supporters of likely winners

begin at a higher reference payoff than that of underdog supporters, who, in the event of defeat, primarily forgo a potential gain rather than incurring a more painful loss (25).

PROSPECT THEORY AS AN EXPLANATION FOR POLITICAL PARTY BEHAVIOUR

Given Prospect Theory's application to collective decision making, political party behaviour can also be interpreted through Prospect Theory as parties make strategic decisions under uncertainty. Risk aversion can also be understood as not acting above expectations (4, 6). Since parties cannot directly observe the full distribution of voters' preferences, they may rely on imperfect signals from the electorate, which may contribute to uncertainty during campaign decision-making (26). Due to loss aversion, voters who perceive themselves in the domain of losses may express stronger dissatisfaction with the status quo, creating uncertainty for parties about whether visible voter feedback accurately models the broader electorate (26). This tendency is consistent with formal electoral models that incorporate loss aversion, in which voters' loss aversion causes parties to adopt more risk-averse strategies and remain near to the status quo to avoid potential electoral losses (21).

As substantial reform is more likely when voters are risk-seeking, and therefore in the domain of losses, techniques like fearmongering may be especially effective because they draw on loss aversion and probability weighting. More generally, experimental evidence suggests that people respond differently to equivalent outcomes depending on whether they are framed as being in the domain of gains or losses. Alós-Ferrer et al. found that voters were more supportive of egalitarian outcomes if it were framed as gains, while they were more supportive of selfish outcomes if it were framed as losses (27). However, the electoral effects of loss framing are not always consistent with Prospect Theory tendencies. A field study by Mann et al. suggested that political messages in the frame of losses do not necessarily outperform political messages in the frame of gains in inciting voter participation (28). This may serve as a potential contradiction to Prospect Theory and shows the potential difficulty in applying Prospect Theory beyond laboratory contexts.

Even though there may be contradictions to the effectiveness of loss framing, blame avoidance provides a way to interpret how political actors respond to electoral risks associated with negative outcomes (29). The term blame avoidance refers to strategies through which political actors attempt to distance themselves from unpopular outcomes, such as through shifting responsibility to other actors or institutions (29). The Prospect Theory mechanism that underlies parties' blame avoidance is loss aversion. Considering the mechanics of loss aversion, parties may seek to avoid responsibility for negative outcomes, as the electoral costs of perceived losses may outweigh the benefits of potential gains (6, 7, 29). This logic is consistent with blame avoidance strategies, through which actors distance themselves from unpopular outcomes or shift the responsibility to other actors or institutions (29). The ideas of loss-aversion and altering the position of the status quo may explain why the behaviour of reform-oriented parties during electoral times may attempt to frame the status quo as in the domain of losses, thereby making political change more acceptable (6, 10, 21). This focus on voters' beliefs is especially important considering that electoral considerations tend to affect politicians' reference points more than policy impacts. This was shown through experimental evidence by Linde and Vis (30).

A comparable strategy of reframing the reference point may be seen in Martin Luther King Jr.'s "I Have a Dream" speech. This strategy is used in the statement "We cannot be satisfied as long as the Negro's basic mobility is from a smaller ghetto to a larger one" (31). This establishes an issue with the status quo, framing the only option available to people of color as a losing scenario. This may make the status quo seem unacceptable, shifting the reference point above the current position, and bringing them into the domain of losses, allowing social reform. Majoritarian groups that support the status quo, however, must do the opposite to remain in power, maintaining the current position in the domain of gains. Formal models of electoral competition that account for loss-averse voters relative to the status quo coincide with this as in such a model parties were encouraged to maintain existing policy positions rather than risk electoral losses through major policy change (21). In electoral contexts, similar framing strategies may be used by parties to encourage risk-seeking behaviour, allowing for a change in the status quo.

Clientelist parties are parties that exchange goods, jobs, or other favours for political support. Prospect Theory provides an alternative model for clientelist political parties in relation to vote buying. Usual clientelist theory suggests that clientelist parties who are winning political favour are less likely to buy votes, though this is not supported by empirical data (22).

Prospect Theory instead states that clientelist parties in the domain of gains would be more likely to buy votes, as they would act risk-averse, buying more votes to ensure their position. Bahamonde and Canales indicate this through a controlled experiment game where participants were given varying levels of electoral security and then had the option to allocate their resources to vote buying (22). This same occurrence is shown through a list experiment in Nicaragua's 2008 election where 24% of voters were offered a gift from the party even though they already held 40% of the electorate, with this election being considered widely uncompetitive (23).

PROSPECT THEORY AS A SELECTION TOOL FOR LEADERS IN ELECTIONS

While Prospect Theory has been primarily used to model the choice of powerful political figures under uncertainty, the existing literature suggests a broader relationship between voters' risk preferences and political leader selection (4, 10). This section argues that Prospect Theory can be a useful explanatory framework for certain aspects of leader selection, through combining the relationship between a leader's traits and their policies, alongside voters' risk preferences towards policies and subsequent effect on their vote.

Vis states that a voter's political policy preference corresponds with their risk tolerance related to their perceived position (4). As discussed, voters' risk tolerance relates to their domain position, changing their attitudes towards protecting or acting against the status quo. Just as voters prefer policies with certain levels of risk, leaders also show unique policy behaviour. According to Hermann, policy behaviour is heavily influenced by a leader's personal characteristics (32). Hermann studied leaders' characteristics of nationalism, belief in one's ability to control events, need for power, need for affiliation, paranoia, and Machiavellianism (32). Hermann measured whether forty-five leaders' traits and policy preferences were related to find if both these things were interdependent. Ultimately, they found that leaders with certain traits prefer certain policy types. For example, leaders who exhibited Machiavellianism and paranoia preferred more combative policies (32).

Overconfidence is very relevant to the applications of Prospect Theory to leader selection. It is defined as a cognitive bias which leads to the overestimation of one's abilities or of the accuracy of their predictions. There are multiple types of overconfidence, such as overoptimism and overprecision. Overoptimism is when one overestimates "positive outcomes, either in terms of magnitude or in terms of frequency," and overprecision is when one "underestimates the variance of possible outcomes" (12). Although overconfidence is not a key component of Prospect Theory, it interacts with it through concepts such as probability weighting, which may lead political actors to overweight unlikely successes or underestimate the risks of electoral decisions.

Democratic systems also play a role in leaders' risk tolerance. Sheffer and Loewen clarify that leaders are often overconfident about their chances of being re-elected. This leads to risky behaviour as a response, due to misjudgement of information. Their overconfidence is defined as the difference between their subjective probability of being re-elected and their objective chance of being re-elected: $OCi = CREi - ESi$ (14). If there are electoral incentives to act in a more precarious manner, such as risky behaviour's ability to distinguish oneself from other candidates, leaders will be encouraged to exhibit risk-seeking behaviour. This may suggest that leaders act less overconfident in policy scenarios due to the dissipation of the pressure to act overconfident during the electoral cycle.

Moreover, Sheffer and Loewen show that political elites' risk tolerance is not fixed. Through a survey experiment with 440 incumbent U.S. local politicians, they showed that both gain-loss framing and political accountability can induce changes in behaviour (15). Loss-framing, as predicted by Prospect Theory, led to increased risk-seeking in politicians compared to gain-framing (6, 15). Political accountability was another significant factor that led to risk-seeking behaviour, increasing their risk-seeking behaviour by 17 percentage points. This only applied, however, to leaders planning to run for re-election (15). This suggests that when campaign pressures or accountability measures are lifted, leaders might act in a less risky manner than with those pressures, overall leading to less risk-seeking leaders.

CONCLUSION

This review analyses the value of Prospect Theory as an explanatory framework for electoral studies. The reviewed literature suggests that Prospect Theory is an effective model of some of the "irrational behaviour" that underpins several electoral phenomena, such as voter participation, attitudes towards reform, strategic voting, party positioning, campaign framing, vote buying and leader selection. The literature shows that using behavioural approaches can improve our understanding

of electoral phenomena beyond what is suggested by other normative theories.

Some issues arise when applying Prospect Theory to electoral behaviour (4). First, no objective method to measure an individual or a population's exact reference point exists, making it difficult to relate by how much an occurrence corresponds to the Prospect Theory model (24). Even further, the gradient which each person hosts for their value function is not constant between individuals, and there is also no current method for measuring it directly. The inconsistency of these two factors makes it difficult to predict a person's exact risk tolerance with Prospect Theory, as well as the direct impact that applying the Prospect Theory model would have.

Prospect Theory's editing phase also poses challenges. Kahneman and Tversky conducted their experiments at a stage where no further editing could be done to the prospect (6). When it comes to applying Prospect Theory to political science, that is not generally the case. This could cause a discrepancy between the prospects that are being evaluated, impeding a clear result.

This methodological issue may explain why quantitative or causal applications of Prospect Theory to voters remain undeveloped, due to the issues of studying collective electorate behaviour through a theory originally developed for individuals. Even though this is the case as Prospect Theory appears to apply to collectives, it would be valuable to see more research focused on quantitative data collection relative to electoral behaviour. To achieve this, tools such as betting markets could provide useful information.

Some difficulties regarding reference point may also be eased when studying the relationship relative to voters at an aggregate level, as collective electoral behaviour may allow researchers to identify broader patterns that are less visible at the individual level. However, this possibility remains conditional on whether voters' reference points can be meaningfully approximated through benchmarks, such as the status quo, and should therefore be treated as an area for further empirical investigation instead of a methodological solution (4, 24).

Regarding leader selection, future quantitative research examining the relationship between leaders' traits and the population's risk tolerance at the time of their election would be interesting. In such a scenario their traits could be assessed through analysis of politicians' statements, as done by Hermann's research paper (32). It could be valuable to see whether betting markets could be applied as a potential way to measure political approval based on the reactions seen on such betting markets. Through this research, future research could examine whether regional differences in risk tolerance can be systematically measured. This review suggests that Prospect Theory's explanatory value for electoral studies lies in its capacity to connect diverse electoral phenomena to behavioural mechanisms of decision making under uncertainty. This contribution follows from its status as a descriptive model, which allows it to illuminate aspects of political behaviour that normative models may treat less explicitly.

CONFLICT OF INTEREST

The author declares that there are no conflicts of interest related to this work.

REFERENCES

1. Bartels LM. The study of electoral behavior. In: Leighley JE, editor. The Oxford handbook of American elections and political behavior. Oxford University Press; 2010. p. 239-261. ISBN: 978-0-19-923547-6. https://doi.org/10.1093/oxfordhb/9780199235476.003.0014
2. Levy JS. Prospect theory, rational choice, and international relations. *International Studies Quarterly.* 1997; 41 (1): 87-112. https://doi.org/10.1111/0020-8833.00034
3. Quattrone GA, Tversky A. Contrasting rational and psychological analyses of political choice. *American Political Science Review.* 1988; 82 (3): 719-736. https://doi.org/10.2307/1962487
4. Vis B. Studying political decision-making using prospect theory. *Comparative Political Studies.* 2009; 42 (11): 1417-1442.
5. Herrmann O, Jong-A-Pin R, Schoonbeek L. A prospect-theory model of voter turnout. *Journal of Economic Behavior & Organization.* 2019; 168: 362-373. https://doi.org/10.1016/j.jebo.2019.10.012
6. Kahneman D, Tversky A. Prospect theory: an analysis of decision under risk. *Econometrica*. 1979; 47 (2): 263-291. https://doi.org/10.2307/1914185
7. Barberis NC. Thirty years of prospect theory in economics: a review and assessment. *Journal of Economic Perspectives.* 2013; 27 (1): 173-196. https://doi.org/10.1257/jep.27.1.173
8. Baucells M, Villasís A. Stability of risk preferences and the reflection effect of prospect theory. *Theory Dec.* 2010; 68: 193-211. https://doi.org/10.1007/s11238-009-9153-3
9. Reb J, Connolly T. Possession, feelings of ownership

and the endowment effect. *Judgment and Decision Making*. 2007; 2 (2): 107-114. https://doi.org/10.1017/S1930297500000085

10. Levy JS. Applications of prospect theory to political science. *Synthese*. 2003; 135 (2): 215-241. https://doi.org/10.1023/A:1023413007698
11. McDermott R, Fowler JH, Smirnov O. On the evolutionary origin of prospect theory preferences. *The Journal of Politics*. 2008; 70 (2): 335-350. https://doi.org/10.1017/S0022381608080341
12. Malmendier U, Taylor T. On the verges of overconfidence. *Journal of Economic Perspectives*. 2015; 29 (4): 3-8. https://doi.org/10.1257/jep.29.4.3
13. Cox GW. Making votes count: strategic coordination in the world's electoral systems. Cambridge University Press; 1997. ISBN: 9780521585163. https://doi.org/10.1017/CBO9781139174954
14. Sheffer L, Loewen P. Electoral confidence, overconfidence, and risky behavior: evidence from a study with elected politicians. *Political Behavior*. 2019; 41 (1): 31-51. https://doi.org/10.1007/s11109-017-9438-0
15. Sheffer L, Loewen PJ. Accountability, framing effects, and risk-seeking by elected representatives: an experimental study with American local politicians. *Political Research Quarterly*. 2019; 72 (1): 49-62. https://doi.org/10.1177/1065912918775252
16. Herstein IN, Milnor J. An axiomatic approach to measurable utility. *Econometrica*. 1953; 21 (2): 291-297. https://doi.org/10.2307/1905540
17. Allais M. Le comportement de l'homme rationnel devant le risque: critique des postulats et axiomes de l'école américaine. *Econometrica*. 1953; 21 (4): 503-546. https://doi.org/10.2307/1907921
18. Tversky A, Kahneman D. Advances in prospect theory: cumulative representation of uncertainty. *Journal of Risk and Uncertainty*. 1992; 5: 297-323. https://doi.org/10.1007/BF00122574
19. Kahneman D, Knetsch JL, Thaler RH. Experimental tests of the endowment effect and the Coase theorem. *Journal of Political Economy*. 1990; 98 (6): 1325-1348. https://doi.org/10.1086/261737
20. Whyte G. Escalating commitment in individual and group decision making: a prospect theory approach. *Organizational Behavior and Human Decision Processes*. 1993; 54 (3): 430-455. https://doi.org/10.1006/obhd.1993.1018
21. Lockwood B, Rockey J. Negative voters? Electoral competition with loss-aversion. *Economic Journal*. 2020; 130 (632): 2619-2648. https://doi.org/10.1093/ej/ueaa037
22. Bahamonde H, Canales A. Electoral risk and vote buying, introducing prospect theory to the experimental study of clientelism. *Elect Stud*. 2022; 80: 102497. https://doi.org/10.1016/j.electstud.2022.102497
23. Gonzalez-Ocantos E, de Jonge CK, Meléndez C, Osorio J, Nickerson DW. Vote buying and social desirability bias: experimental evidence from Nicaragua. *American Journal of Political Science*. 2012; 56 (1): 202-217. https://doi.org/10.1111/j.1540-5907.2011.00540.x
24. Levy JS. Prospect theory and international relations: theoretical applications and analytical problems. *Political Psychology*. 1992; 13 (2): 283-310. https://doi.org/10.2307/3791682
25. Leontiou A, Manalis G, Xefteris D. Bandwagons in costly elections: the role of loss aversion. *Journal of Economic Behavior & Organization*. 2023; 209: 471-490. https://doi.org/10.1016/j.jebo.2023.03.011
26. Bade S. Electoral competition with uncertainty averse parties. *Games and Economic Behavior*. 2011; 72 (1): 12-29. https://doi.org/10.1016/j.geb.2010.09.001
27. Alós-Ferrer C, Garagnani M, García-Segarra J. The role of payoff valence on voting: egalitarian for gains and selfish for losses. *Front Psychol*. 2021; 12: 737225. https://doi.org/10.3389/fpsyg.2021.737225
28. Mann CB, Arceneaux K, Nickerson DW. Do negatively framed messages motivate political participation? Evidence from four field experiments. *American Politics Research*. 2020; 48 (1): 3-21. https://doi.org/10.1177/1532673X19840732
29. Weaver RK. The politics of blame avoidance. *Journal of Public Policy*. 1986; 6 (4): 371-398. https://doi.org/10.1017/S0143814X00004219
30. Linde J, Vis B. Do politicians take risks like the rest of us? An experimental test of prospect theory under MPs. *Political Psychology*. 2017; 38 (1): 101-117. https://doi.org/10.1111/pops.12335
31. Martin Luther King Jr. "I Have a Dream" speech by the Rev. Martin Luther King Jr. at the "March on Washington," 1963 (excerpts). Gilder Lehrman Institute of American History; 2014. Available from: https://www.gilderlehrman.org/sites/default/files/inline-pdfs/king.dreamspeech.excerpts.pdf (accessed on 2026-04-19).
32. Hermann MG. Explaining foreign policy behavior using the personal characteristics of political leaders. *International Studies Quarterly*. 1980; 24 (1): 7-46. https://doi.org/10.2307/2600126