

BRIDGING THE DIVIDE:
THE ROLE OF THE PAST IN UNDERSTANDING AND OVERCOMING
IDEOLOGICAL DIFFERENCES



Inauguraldissertation zur Erlangung des Doktorgrades
der Humanwissenschaftlichen Fakultät der Universität zu Köln
nach der Promotionsordnung vom 18.12.2018

vorgelegt von

Anna Schulte

aus Wesel (Deutschland)

vorgelegt am 13.10.2023

Diese Dissertation wurde von der Humanwissenschaftlichen Fakultät der Universität zu Köln im März 2024 angenommen.

Preface

Chapter 2 is based on the following manuscript:

Schulte, A., Baldwin, M., & Lammers, J. (2023). *Highlighting the old in the “new normal”:
Appealing to conservatives’ nostalgia decreases opposition to COVID-19 measures.*
Manuscript invited for revision by *Social Psychology*.

The third author and I developed all experiments together. I programmed all experiments, collected the data, and conducted all data analyses. I wrote the original draft of the manuscript, and all authors critically edited it.

Chapter 3 is based on the following manuscript:

Schulte, A., & Lammers, J. (2023). *The cognitive-motivational roots of conservatives’ desire
for the past.* Revised manuscript submitted to *Social Cognition*.

We developed all experiments together. I programmed all experiments, collected the data, and conducted all data analyses. I wrote the original draft of the manuscript, and we both critically edited it.

Chapter 4 is based on the following publication:

Lammers, J., Schulte, A., & Baldwin, M. (in press). Does framing climate change policies to fit
with epistemic needs for predictability reduce conservatives’ opposition? *Analyses of
Social Issues and Public Policy*. <https://doi.org/10.1111/asap.12362>

The first author developed the experiments. I programmed Study 1 and collected the data for this study. The first author programmed Studies 2 and 3 and collected the data for these studies. The first author conducted the data analyses for Studies 1 and 2, and I conducted the data analysis for Study 3 and created all tables and graphs. The first author wrote the original draft of the manuscript, and all authors critically edited it.

Chapter 5 is based on the following manuscript:

Lammers, J.* & Schulte, A.* (2023). *A historical perspective can reduce partisan animosity.*
Manuscript submitted for publication to *Proceedings of the National Academy of
Sciences*.

We developed all experiments together. I programmed all experiments, and we collected the data together. I conducted all data analyses. The first author wrote the original draft of the manuscript, and we both critically edited it. *Shared first authorship.

Please note that some changes in formatting and citation style were undertaken to fit the layout of the dissertation. No changes were made to the content of the articles and manuscripts.

Acknowledgements

The completion of this dissertation would not have been possible without the support of many great people, whom I would like to thank in the following.

First, I want to thank my family for their incredible support throughout my entire academic journey. No matter where this journey has taken me, you have always stood by my side, encouraged me, and believed in my abilities. Without your support, this journey would not have been possible. Thank you for everything.

I would also like to thank my first supervisor, Joris, for his guidance, expertise, and belief in my potential. Your inspiring ideas and constructive feedback have sparked my fascination with political psychology and shaped the course of my research. You always provided me with emotional support in moments of self-doubt and gave me the confidence to overcome obstacles and achieve my goals. I would also like to thank Hans, my second supervisor, for his support throughout the process of completing this dissertation. Although we did not collaborate directly on this dissertation project, our other collaborations were essential in shaping my research focus, and I look forward to continuing working with you. Thank you for being a part of my academic journey.

I want to express special thanks to my fellow PhD student, Anne. Starting our doctoral studies together amidst the challenges of the pandemic forged a strong bond between us, and your support as a colleague and a friend has been invaluable. I would also like to thank Claudine, Johanna, and Marina. Together, the four of you not only gave me valuable feedback and support during the completion of my dissertation, but also made this whole experience very enjoyable for me, and I am really thankful for our friendship.

Finally, I want to thank all the other (former) PhD students within SoCCCo who have contributed to making this time so enriching. The experiences we shared, the memories we created, and the connections we made will always have a special place in my heart.

Abstract

Within the complex structure of political discourse, understanding the fundamental ideological differences between conservatives and liberals has been a longstanding challenge. While previous research has explored numerous psychological dimensions of these differences, the role of time as a determinant factor has received less attention. The present dissertation aims to fill this gap by examining the meaning of the past for political positions and exploring the potential of past-focused communication strategies to bridge political divides. Chapter 1 reviews theoretical frameworks and empirical evidence that support the relevance of the past for political preferences, particularly within conservative ideology. To validate this concept, Chapter 2 demonstrates that framing highly polarized COVID-19 policies as a return to the past can lead to modest yet significant political rapprochement by reducing conservative opposition. In Chapter 3, a cognitive-motivational explanation of conservatives' preference for past-focused ideas is provided, suggesting that conservatives interpret the past as a realization of their fundamental epistemic and existential motives. Chapter 4 shows that appealing solely to these motives without connecting them to the past fails to bridge the divide effectively, highlighting the advantages of past-focused framing over other forms of framed communication. Chapter 5 demonstrates the unique potential of a focus on the past in reducing ideological outgroup hostility and enhancing willingness to engage in compromise across political lines. Overall, this dissertation contributes valuable insights to the understanding of the ideological underpinnings that shape the political landscape, fostering efforts for a more collaborative society.

Deutsche Zusammenfassung

Im komplexen Gefüge des politischen Diskurses stellt das Verständnis der grundlegenden ideologischen Unterschiede zwischen Konservativen und Liberalen seit jeher eine Herausforderung dar. Während vorangegangene Forschungsarbeiten bereits zahlreiche psychologische Dimensionen dieser Unterschiede untersucht haben, wurde der Rolle der Zeit als maßgeblicher Faktor bislang nur wenig Beachtung geschenkt. Die vorliegende Dissertation soll diese Lücke schließen, indem sie die Bedeutung der Vergangenheit für politische Positionen untersucht und das Potenzial vergangenheitsorientierter Kommunikationsstrategien zur Überbrückung politischer Differenzen erforscht. Kapitel 1 gibt einen Überblick über die theoretischen Grundlagen und empirischen Belege für die Relevanz der Vergangenheit für politische Präferenzen, insbesondere für die konservative Ideologie. Zur Validierung dieses Konzepts zeigt Kapitel 2, dass die Darstellung stark polarisierter COVID-19-Maßnahmen als Rückkehr in die Vergangenheit zu einer moderaten, aber bedeutsamen politischen Annäherung führen kann, indem konservative Ablehnung reduziert wird. Kapitel 3 stellt eine kognitiv-motivationale Erklärung für die Präferenz von Konservativen für vergangenheitsorientierte Ideen vor, nach der Konservative die Vergangenheit als Realisierung ihrer grundlegenden epistemischen und existenziellen Motive interpretieren. Kapitel 4 zeigt, dass das alleinige Ansprechen dieser Motive, ohne sie mit der Vergangenheit in Verbindung zu bringen, nicht ausreicht, um Differenzen wirksam zu überbrücken, was die Vorteile des vergangenheitsorientierten Framings gegenüber anderen Formen der geframten Kommunikation hervorhebt. Kapitel 5 demonstriert das einzigartige Potenzial einer Fokussierung auf die Vergangenheit zur Verringerung der Feindseligkeit gegenüber anderen ideologischen Gruppen und zur Erhöhung der Kompromissbereitschaft über politische Grenzen hinweg. Insgesamt leistet diese Dissertation einen wertvollen Beitrag zum Verständnis der ideologischen Grundlagen, die die politische Landschaft prägen, und fördert Bemühungen um eine kooperativere Gesellschaft.

Table of Contents

Preface.....	I
Acknowledgements.....	II
Abstract.....	III
Deutsche Zusammenfassung.....	IV
Table of Contents.....	V
List of Figures.....	IX
List of Tables.....	X
Chapter 1: General Introduction.....	1
1.1 Historical Foundations and Goals of Political Conservatism.....	3
1.2 The Role of the Past in Approaches to Ideological Differences.....	6
1.2.1 Bottom-Up Approaches.....	6
1.2.2 Top-Down Approaches.....	11
1.3 The Relation between Political Ideology and Nostalgia.....	13
1.3.1 Conservatism and Nostalgia.....	14
1.3.2 Liberalism and Nostalgia.....	15
1.4 The Past as a Tool for Political Rapprochement.....	18
1.4.1 Decreasing Opposition Among Conservatives.....	18
1.4.2 Increasing Unity Across Ideologies.....	20
Chapter 2: Highlighting the Old in the “New Normal”: Appealing to Conservatives’ Nostalgia Decreases Opposition to COVID-19 Measures.....	23
Abstract.....	24
2.1 Introduction.....	25
2.1.1 Conservative Nostalgia and COVID-19 Responses.....	25
2.1.2 Overview of Studies.....	27
2.2 Study 1 – Attitudes toward COVID-19.....	27
2.2.1 Participants and Design.....	27
2.2.2 Measures.....	28
2.2.3 Results.....	28
2.3 Study 2 – Observing COVID-19 Rules.....	29
2.3.1 Participants and Design.....	29
2.3.2 Measures.....	30
2.3.3 Results.....	30
2.4 Study 3 – Framing Face Masks as a Return to the Past.....	31

2.4.1 Participants and Design.....	32
2.4.2 Procedure and Measures	32
2.4.3 Results	32
2.5 Study 4 – Framing Vaccination as a Return to the Past	34
2.5.1 Participants and Design.....	35
2.5.2 Measures	35
2.5.3 Results	35
2.6 Study 5 – The Role of Partisan Influence	37
2.6.1 Participants and Design.....	37
2.6.2 Measures	38
2.6.3 Results	38
2.7 Study 6: Internal Meta-Analysis	41
2.8 General Discussion.....	42
2.8.1 Applied Implications	43
2.8.2 Theoretical Implications.....	44
2.8.3 Ideas for Future Research.....	45
2.8.4 Strengths and Limitations	46
2.8.5 Conclusion.....	47
Chapter 3: The Cognitive-Motivational Roots of Conservatives’ Desire for the Past	49
Abstract	51
3.1 Introduction	52
3.1.1 The Role of the Past in Conservative Thinking	52
3.1.2 Conservatism as Motivated Social Cognition	53
3.1.3 Summary and Overview of Studies.....	57
3.2 Study 1 – Epistemic Motives	58
3.2.1 Participants and Design.....	58
3.2.2 Materials and Procedure.....	58
3.2.3 Results and Discussion.....	59
3.3 Study 2 – Existential Motives	63
3.3.1 Participants and Design.....	64
3.3.2 Materials and Procedure.....	64
3.3.3 Results and Discussion.....	65
3.4 Study 3 – Existential and Epistemic Beliefs as Mediators.....	68
3.4.1 Participants and Design.....	69

3.4.2 Materials and Procedure.....	69
3.4.3 Results.....	70
3.5 Study 4 – Replication in the UK Using a Representative Sample	72
3.5.1 Participants and Design.....	73
3.5.2 Materials and Procedure.....	73
3.5.3 Results and Discussion.....	73
3.6 General Discussion.....	75
3.6.1 Connections to Past Research	76
3.6.2 Future Directions.....	77
3.6.3 Applied Implications	79
3.6.4 Strengths and Limitations	80
3.6.5 Conclusion.....	81
Chapter 4: Does Framing Climate Change Policies to Fit with Epistemic Needs for Predictability Reduce Conservatives’ Opposition?.....	82
Abstract	83
4.1 Introduction.....	84
4.1.1 Closure and Conservatism.....	84
4.1.2 Psychological Process: Two Explanations	86
4.1.3 Overview of Studies.....	88
4.1.4 Sampling	88
4.2 Study 1 – Conservatism and Need for Closure	89
4.2.1 Participants and Design.....	89
4.2.2 Procedure and Measures	89
4.2.3 Results	90
4.3 Study 2 – Unpredictability Framing and Evaluation of Politicians	90
4.3.1 Participants and Design.....	90
4.3.2 Procedure.....	91
4.3.3 Measures	91
4.3.4 Results.....	92
4.3.5 Discussion	96
4.4 Study 3 – Unpredictability Framing and Funding for NGOs.....	96
4.4.1 Participants and Design.....	96
4.4.2 Procedure.....	96
4.4.3 Measures	97

4.4.4 Results	97
4.5 General Discussion.....	104
4.5.1 Theoretical Implications.....	104
4.5.2 Practical Implications	105
4.5.3 Conservatism and Closure Needs.....	105
4.5.4 Suggestions for Future Research.....	106
4.6 Conclusion.....	107
Chapter 5: A Historical Perspective Can Reduce Partisan Animosity	108
Abstract	110
Significance Statement.....	110
5.1 Introduction	111
5.1.1 Overview of Studies	113
5.2 Results	114
5.2.1 Study 1	114
5.2.2 Study 2	116
5.3.3 Study 3	117
5.3 Discussion	119
5.4 Materials and Methods	120
5.5. Supporting Information Appendix	122
Chapter 6: General Discussion.....	136
6.1 Theoretical and Practical Implications	137
6.2 Limitations and Open Questions	140
6.2.1 Conceptualization of Ideology	141
6.2.2 Sampling	145
6.2.3 Potential Moderators	146
6.3 Meta-Applications.....	148
6.4 Conclusion.....	149
References	150

List of Figures

Figure 2.1	Study 2: Effects of political ideology on intentions to follow four COVID-19 guidelines, mediated by collective nostalgia	31
Figure 2.2	Study 3: Interaction between ideology and temporal condition on endorsement of the statement	33
Figure 2.3	Study 4: Interaction between ideology and temporal condition on endorsement of the statement	36
Figure 2.4	Study 5: Three-way interaction between ideology, temporal condition, and the speaker's party affiliation on endorsement	41
Figure 3.1	Three-way interaction between political ideology, temporal frame, and epistemic consistency	63
Figure 3.2	Three-way interaction between political ideology, temporal frame, and existential consistency	68
Figure 3.3	Multiple mediation of political ideology on past-focus-preference	72
Figure 3.4	Multiple mediation of political ideology on past-focus-preference	75
Figure 4.1	Study 2: Interaction between ideology and perceived identity on attitudes toward the politician	95
Figure 4.2	Study 3: Interaction between ideology and perceived identity on attitudes toward the NGO	101
Figure 5.1	Study 1: Attitude toward opponents as a function of partisan self-identification and focus (A) and serial-parallel mediation (B)	115
Figure 5.2	Study 2: Trust (A) and expected trust (B) toward the opponent as a function of partisan self-identification and historical preference	117
Figure 5.3	Study 3: Transfer to (A) and expected transfer from (B) the political opponent as a function of partisan self-identification and historical preference	118
Figure S5.1	The interaction of condition and continuous political self-identification (on a 7-point scale) on attitude toward the political outgroup in Studies 1a-c	126
Figure S5.2	The interaction of condition and continuous political self-identification (on a 7-point scale) on trust toward the political opponent in Study 2	132
Figure S5.3	The interaction of condition and continuous political self-identification (on a 7-point scale) on monetary transfer to the political opponent in Study 3	135

List of Tables

Table 2.1	Study 1: Descriptives, zero-order correlations, and internal reliabilities (Cronbach's alpha, in diagonal) for all measures	28
Table 2.2	Study 2: Descriptives, zero-order correlations, and internal reliabilities (Cronbach's alpha, in diagonal) for all measures	30
Table 2.3	Study 5: Regression results using endorsement of the statement as the criterion	40
Table 3.1	Study 1: Regression results using endorsement of the statement as the criterion	62
Table 3.2	Study 2: Regression results using endorsement of the statement as the criterion	67
Table 4.1	Study 2: Linear regression analysis with relative attitude toward the closure- versus consequences-frame politician (difference score) as outcome variable	93
Table 4.2	Study 3: Linear mixed-effects model with attitudes toward the closure-frame NGO, relative to the consequences-frame NGO (difference score) as an outcome variable	100
Table 4.3	Study 3: Linear mixed-effects model with funding toward the closure-frame NGO versus the consequences-frame NGO (difference score) as outcome variable	103
Table S5.1	Regression results using attitude toward the political outgroup as the criterion in Studies 1a-c	126
Table S5.2	Regression results using attitude toward the political outgroup as the criterion in Studies 1a, b, c separately	127
Table S5.3	Regression results using perceived trustworthiness of the political opponent as the criterion in Study 2	131
Table S5.4	Regression results using transfer to the political opponent as the criterion in Study 3	135

Chapter 1: General Introduction

In the present day, societies around the world are struggling with an unprecedented and deep-rooted political divide between conservatives and liberals. This divide is characterized by sharp ideological differences that make it increasingly challenging to find common ground on critical issues. From divergent policy preferences to opposing fundamental values, the two ideological camps often find themselves engaged in intense debates that shape the course of society. Resulting from those ideological differences, polarization and animosity are steadily increasing and have reached their peak level in recent years (Iyengar et al., 2019; McCarty et al., 2006). Amidst this highly charged political landscape, scholars and researchers have tried to unravel the roots of this ideological divide. From political science to psychology, various research domains have sought to understand the differences between conservatives and liberals. As a result, a new focus on psychological approaches has emerged, drawing attention to individual differences in underlying needs and motives that drive and reinforce ideological stances (e.g., Jost et al., 2003a; Jost, 2017; Thorisdottir et al., 2007).

This dissertation aims to complement this research and proposes that the element of time, particularly conservatives' focus on the past, plays a significant role in shaping ideological differences. Delving into the origins of the ideological disparities between conservatives and liberals, this dissertation takes a foundational perspective by focusing on the deepest roots of conservative political ideology. Conservatives, as the name suggests, seek to conserve and preserve established traditions, institutions, and values that have endured over time. Grounded in the belief that the past holds valuable insights and should be respected, conservatives often advocate for cautious and incremental change, valuing stability and continuity over rapid change (Kirk, 1953; Muller, 1997). The inclination to conserve the past distinguishes conservatives from their liberal counterparts who tend to embrace progress and social change as a means to create a more inclusive and egalitarian society (Jost et al., 2003a; Jost et al., 2009). The central argument of this dissertation posits that these contrasting

perspectives on history and time, specifically conservatives' orientation toward the past, provide a substantial foundation for understanding the ideological variations between conservatives and liberals. Drawing on a wide range of earlier approaches from political science and psychology, I will show that manifestations of different temporal orientations run like a thread through the existing literature. Furthermore, I will demonstrate that this perspective can be used to develop strategies to reach political rapprochement between conservatives and liberals. Although the past is especially meaningful for conservatives, I argue that it has the potential to reduce opposition also on the liberal side of the political spectrum. Relying on earlier findings, I will show that a focus on the past can bring people from different ideological backgrounds closer together, thereby reducing polarization and animosity across political lines.

As a first step, I will review literature on earlier approaches to political ideology and demonstrate that these approaches already, albeit not intentionally, support the idea that different orientations toward the past shape ideological differences. I will review empirical evidence for the relation between political conservatism and a focus on the past, as well as the role of this relation in shaping political positions (Chapter 1). To test the idea that this temporal orientation crucially influences ideological outcomes, Chapter 2 presents a line of research that tests if framing the polarized issue of COVID-19 health measures as a return to the past can reduce ideological differences in attitudes toward these measures by reducing conservatives' opposition. To further understand the underlying reasons for the appeal the past holds for conservatives, Chapter 3 describes research that examines the notion that conservatives are drawn to the past due to its alignment with their underlying epistemic and existential motives. I propose that conservatives see a fulfillment of these motives in the past and, consequentially, that appealing to the past does not reduce ideological disparities if the depicted past contradicts these motives. Moreover, to test if the past has an intrinsic value that goes above and beyond differences in psychological motives, I investigate if solely referring to epistemic motives

(without any reference to the past) is also effective in reducing political differences. Chapter 4 therefore presents research that tests the effect of epistemic framing on conservatives' opposition to climate change policies. Chapter 5 tests the potential of a focus on the past to diminish the ideological divide by reducing affective polarization across political lines. It investigates past-focused thinking as a strategy to reduce opposition toward the political outgroup. To conclude, I discuss theoretical and applied implications of this approach, as well as potential limitations and directions for future research (Chapter 6).

Taken together, in the present work, I introduce a new perspective on the psychology associated with political conservatism. I combine the idea that thoughts of the past hold significant prominence in conservatives' thinking with insights gained from prior psychological approaches to ideology. The overarching goal of this dissertation is to contribute to a deeper understanding of the ideological underpinnings that shape our political landscape. By emphasizing the relevance of time, specifically the role of the past, it seeks to enhance our comprehension of conservatives' political preferences and how these diverge from the progressive tendencies of liberals. By additionally exploring the potential of past-focused thinking and communication strategies to mitigate political opposition among both conservatives and liberals, this dissertation proposes a novel approach to bridge political divides.

1.1 Historical Foundations and Goals of Political Conservatism

The complexities underlying the ideological differences between individuals with different political orientations have long fascinated researchers and policymakers alike. In the United States and other countries, political orientations are most often classified along a single dimension from liberal/left-wing to conservative/right-wing (Jost et al., 2009). This classification has been commonly used in research on political orientation and seems to be well-suited for societies with established political discourses such as Western countries, where the meaning of these terms is commonly shared (Jost, 2006). Therefore, this dissertation relies

on this one-dimensional conceptualization of political orientation and focuses on the ideological divide between liberals and conservatives. However, it must be noted that alternative multidimensional classifications have been suggested in literature (e.g., Duckitt & Sibley, 2009, 2010; Feldman & Johnston, 2014). I will discuss potential limitations of this one-dimensional view as well as implications for research on multidimensional models of ideology in Chapter 6.

The one-dimensional view on political orientation proposes two poles, with preferences for egalitarian social and economic change and cultural progressivism on the liberal pole and preferences for social and economic hierarchy and traditional authority on the conservative pole. More precisely, in current days, liberalism is characterized by a preference for policies that support government intervention in economy, support for wealth redistribution, efforts to reduce social and economic inequality, and progressive values, such as cultural diversity and inclusivity. Conservatism, on the other hand, is characterized by support for free-market economics, opposition to wealth redistribution, acceptance of economic inequality, and a preference for traditional values, such as traditional family structures (e.g., Costello et al., 2023; Crowson, 2009; Johnston & Ollerenshaw, 2020).

However, looking into the historical context of conservative political stances reveals that conservatism has represented varying positions across different times and nations. For instance, while early English conservatives favored returning to parliamentary monarchy (Eccleshall, 1990), American conservatives at the same time defended the traditional arrangement of republicanism (Schneider, 2009) – representing two distinct political agendas. Although being divided in their concrete ideas of the ideal form of government, those early conservatives seemed to be united in one shared desire: the desire to return to the past and maintain traditional structures (see also Lammers & Baldwin, 2018).

To gain a deeper understanding of the underlying motivation of political conservatism, as well as its differences from political liberalism, it is helpful to consider the philosophical

origins of this ideology. Whereas liberalism emerged from the desire for societal transformation, conservatism developed as a response to this push for change. In fact, the ideological debate about change versus status quo during the French Revolution has defined the terms “left” and “right” in politics: During this period, proponents of revolutionary change sat on the left side of the French Assembly Hall, while supporters of the monarchy and traditional institutions sat on the right side (Jost et al., 2009). In connection with this historical context, the origins of political conservatism are often attributed to the political philosopher Edmund Burke (1790) and his critique of the French Revolution. In his work “Reflections on the Revolution in France”, Burke argued that radical change of existing institutions, as aspired by the revolution, poses a risk at their functioning and leads to unintended consequences, as it breaks up social structures in an unforeseen manner. According to his argumentation, existing societies and their institutions and traditions have evolved over time to meet the needs and aspirations of the people living in them. The respect for and preservation of traditional institutions should therefore be preferred over radical changes. These ideas pose the philosophical foundations for political conservatism by emphasizing the value of tradition, slow and careful change, and preservation of social stability.

These conserving values which go along with a strong respect for the past define political conservatism until today (Kirk, 1953; Muller, 1997; Scruton, 1980). Conservatives tend to prioritize the maintenance of social and economic hierarchies, along with traditional authority (Johnston & Ollerenshaw, 2020). Conservative political ideology is aimed at defending existing institutions and conserving the status quo, which can be seen in conservatives’ aversion to radical societal change and their opposition to deviations from the current social system (Jost et al., 2009; Jost et al., 2003a). Even though conservatives do advocate change in some situations (see Greenberg & Jonas, 2003), “changes desired by right-wingers are actually in the service of returning to some previous idealized state” (Jost et al.,

2003b, p. 384). Overall, the underlying aspiration of conservatism is and has always been, as the name suggests, to “conserve” things that have developed in the past.

1.2 The Role of the Past in Approaches to Ideological Differences

In the last decades, research on ideological differences has moved its focus away from this initial definition of conservatism. As a result, an extensive line of political psychological research on ideological differences relying on various alternative approaches has emerged, each of them proposing different influencing factors to political ideology. One way to classify these factors is to divide them into *bottom-up* and *top-down* influences (Jost et al., 2009). Bottom-up influences comprise factors that are related to an individual’s psychological characteristics, motivations, and predispositions (i.e., internal factors). Top-down influences encompass factors that are socially construed and lie outside of the individual (i.e., external factors). In the following, I will review a range of existing approaches to bottom-up and top-down influences of political ideology. In doing so, I will show that conservatives’ focus on the past is evident throughout these approaches, even though they were not initially intended to address different temporal orientations. Later, in Chapter 1.4, I will also point out the benefits of integrating both bottom-up and top-down approaches to investigate the potential and limitations of past-focused political communication.

1.2.1 Bottom-Up Approaches

A comprehensive body of research on the relation between personality and ideology has investigated the contribution of individual psychological processes to political preferences. According to these approaches, people’s receptiveness to specific political positions is influenced by their underlying psychological needs, goals, and motives (see Jost et al., 2009). One of the most influential approaches is the model of ideology as motivated social cognition (Jost et al., 2003a), which holds that differences in political preferences (i.e., leaning toward more conservative vs. more liberal beliefs) are the result of differences in psychological motives. More specifically, the model argues that individuals’ political identification is driven

by a process in which people are attracted to political ideologies and belief systems that fit well with their *epistemic needs* for certainty and closure and their *existential needs* for security and safety (Jost, 2017; Jost & Amodio, 2012; Jost et al., 2003a, 2009).

According to the rigidity-of-the-right hypothesis (Tetlock et al., 1984), which is one of the core assumptions regarding epistemic needs within the model, political conservatism is related to cognitive, motivational, and ideological rigidity (Adorno et al., 1950; Jost et al., 2003a; G. D. Wilson, 1973). For instance, research has shown that individuals who score higher on needs for cognitive closure (i.e., a motivation for clear answers and low ambiguity; Kruglanski & Webster, 1996) are more likely to hold conservative political beliefs (e.g., Federico et al., 2012; Jost et al., 2003a; Jost, Nosek, et al., 2008; Van Hiel et al., 2004). On the other hand, people who score high on need for cognition (i.e., a motivation for effortful cognitive activity; Cacioppo et al., 1996) are more likely to support liberal beliefs (e.g., Sargent, 2004). Moreover, conservatives tend to score higher on personality measures associated with a need for certainty than liberals and have stronger implicit and explicit preferences for order, tradition, stability, and other sources of predictability (Jost & Amodio, 2012; Jost et al., 2003a; Jost et al., 2007; Jost, Nosek, et al., 2008). Overall, people who hold conservative beliefs tend to be less tolerant of uncertainty and unpredictability than people with liberal beliefs, which suggests underlying ideological differences in epistemic needs (for meta-analyses, see Jost et al., 2003a; Jost, 2017).

Another proposed ideological difference in Jost and colleagues' (2003a) model of ideology as motivated social cognition refers to existential needs, which are related to concerns about security and threat reduction. Conservatives have been found to be on average more sensitive to threats than are liberals (Jost et al., 2003a; Jost et al., 2017). For instance, when faced with threatening stimuli, conservatives show a stronger physiological response and devote more attention to these stimuli than do liberals (Hibbing et al., 2014). Moreover, conservatives tend to perceive the world as a more threatening place and spend more time

worrying about possible threats than liberals do (Federico et al., 2009; Hennes et al., 2012; Jost et al., 2007; Jugert & Duckitt, 2009; Van Hiel et al., 2007). For instance, American conservatives are more likely to describe phenomena like illegal immigration, terrorism, or cyber-attacks as highly threatening to the US (Jost, 2017; Jost et al., 2017). Further, when being confronted with objectively threatening circumstances, such as terrorist attacks, people tend to endorse conservative political ideas more strongly, providing further evidence for the relation between conservative ideology and existential fear of threat (Bonanno & Jost, 2006; Nail & McGregor, 2009). Taken together, a broad range of studies supports the assumption that conservatives and liberals differ in their epistemic and existential motives (for more nuanced views, see Costello et al., 2023; Federico & Malka, 2018; Jost, 2017; Jost et al., 2017; Jost et al., 2009).

According to Jost and colleagues (2003a), these differences in epistemic and existential motives jointly predict ideological differences in resistance (vs. openness) to change and endorsement (vs. rejection) of inequality. For instance, individuals with higher motivations to reduce uncertainty and threat are more motivated to maintain existing institutions and traditions (Hennes et al., 2012). More specifically, conservatives who desire certainty and security show a higher resistance to change, whereas liberals' lower needs for certainty and security are related to the expression of openness to change (Jost et al., 2003a).

Although not explicitly highlighted, the model includes several references to temporal preferences. In fact, resistance to change, which is considered as a conservative ideological outcome, implies a desire to maintain what is and what has been developed in the past. Openness to change, on the other hand, which is considered as a liberal outcome, implies the embracement of changing the current state in the future. Furthermore, conservatives' epistemic and existential needs may be directly related to their desire to maintain the past. For instance, conservatives strongly prefer predictability, certainty, and stability. Those aspects are all fulfilled in the past: What happened in the past is known and certain, and thinking about it

usually does not evoke any ambiguity. The past offers stability, and it is perceived as a simpler, less complex time than today (e.g., J. L. Wilson, 2014). Traditions that were derived from the past function as a source of certainty because they provide information on how people usually behave (Federico et al., 2014). The finding that liberals, on the other side, score lower on those needs for certainty and predictability fits with the assumption that maintaining the known and stable past is not as valuable for them. In sum, the approach of conservatism as motivated social cognition (Jost et al., 2003a) indicates that there is a link between political conservatism and a temporal focus on the past.

The relation between political conservatism and the desire (vs. rejection) to maintain the past is also detectable in other psychological research, for example in research on human values. Schwartz (1992, 1994) identified a set of basic human values, of which five are directly related to political preferences: One group of values includes *conservation values* (i.e., security, conformity, tradition) and one is clustered as *openness values* (i.e., stimulation and self-direction). Endorsement of conservation values has been shown to be positively correlated with conservatism, whereas openness values are correlated with more liberal beliefs (Caprara et al., 2006; Malka et al., 2014; Thorisdottir et al., 2007). This pattern is again indicative of ideological differences in orientations toward the past versus the future: While conservation values cherish aspects that relate to the past (e.g., tradition), openness values comprise values that are fulfilled by moving away from the past to new experiences (e.g., stimulation).

Similar differences between conservatives and liberals have been proposed in research on moral values. According to the moral foundations theory (Graham et al., 2013; Haidt, 2012), people have different underlying moral intuitions and emotions when making judgements. The theory postulates five universal moral foundations: care/harm (i.e., respecting empathy, sympathy, compassion), fairness/cheating (i.e., respecting fairness, equality, justice), loyalty/betrayal (respecting the ingroup and its unity, culture, shared identity, family), authority/subversion (respecting order, hierarchy, authority, tradition), and sanctity/degradation

(respecting and protecting the ingroup's purity and sacredness). While the first three can be combined into *individualizing foundations* (i.e., focusing on individuals' rights and well-being), the last three are called *binding foundations* (i.e., focusing on social cohesion and protecting the collective ingroup's tradition and order; Graham et al., 2009; Haidt, 2012). Research has shown that individual differences in these moral foundations are significantly related to political self-identification: While liberals favor individualizing foundations over binding foundations, conservatives tend to focus on all five foundations equally, thus endorsing binding foundations more than liberals do (Graham et al., 2009; Haidt & Graham, 2007; Hurst & Stern, 2020). These stronger binding foundations among conservatives include the belief that people should be united with and loyal to their societal ingroup and respect its culture, shared identity, and traditions, which again suggests a connectedness with the national past among conservatives.

Finally, psychological research on basic personality traits found additional evidence for the relation between political ideology and dispositions related to temporal orientations. Previous work on the Big Five personality traits (i.e., openness to experience, conscientiousness, extraversion, agreeableness, emotional stability; McCrae & Costa, 2003) revealed that two of the dimensions, openness to experience and conscientiousness, are related to political orientation. Whereas openness to experience is positively related to liberal beliefs, conscientiousness is related to more conservative beliefs (Bakker, 2017; Carney et al., 2008; Duckitt & Sibley, 2010; Gerber et al., 2010, 2011). Especially the finding that conservatives score lower on openness to experience is in line with the idea that conservatives tend to prefer maintaining established norms and values from the past. But also conservatives' higher conscientiousness includes indirect references to the past. One facet of conscientiousness is traditionalism, which describes the degree to which people support long-established rules and traditions (Roberts et al., 2005). Thus, conservatives' desire to maintain the past can also be detected in research on the personality behind political ideology.

Together, although the presented bottom-up approaches on underlying psychological differences between conservatives and liberals do not explicitly focus on differences in temporal orientation, many of the findings are suggestive of such differences and fit with the idea that the past has an intrinsic value for conservatives. Their higher resistance to change, their stronger focus on conservation values and binding moral foundations, as well as their lower openness to experience and higher conscientiousness indicate a desire to maintain what was developed in the past. Overall, the inclusion of time as an influential factor offers a parsimonious way to unite the core psychological aspects of conservative thinking proposed in bottom-up approaches under a single theoretical explanation of temporal orientation.

1.2.2 Top-Down Approaches

In addition to underlying psychological processes, an individual's political position is also influenced and shaped by the reception of the social reality that is constructed by political elites or peers (Jost et al., 2009). These processes are described in top-down approaches that focus on social and contextual roots of people's political preferences and propose that differences in those preferences are not the result of psychological differences but of different socialization processes. A large body of research in political science has, for instance, focused on the role of parties and political elites in shaping people's political opinion. According to those approaches, people acquire the positions communicated by the leaders and representatives of the parties they support. In other words, people rely on parties and political figures to decide which positions to take (Bakker et al., 2020; Zaller, 1992). When people believe that a policy is supported by their preferred party, they are more likely to support it, irrespective of its content (Cohen, 2003). Researchers recently demonstrated this using the example of the Republican former president Donald Trump – a politician who is known to frequently change his opinion on various topics. They showed that supporters of Trump endorsed policies on issues like climate change or immigration when told that Trump also supported them but were opposed to them when told that Trump did not support these policies

(Barber & Pope, 2019). Similar acquisition processes are also suggested for the reception of media content. Staying with the example of climate change, research has shown that news television channels differ in the extent they express skepticism about the existence of anthropologic climate change, with conservative channels (e.g., Fox News) being most skeptical (Feldman et al., 2012). Hmielowski and colleagues (2014) demonstrated that the more people report watching those conservative channels, the more likely they were to believe that climate change was not real, which in turn led to lower support for climate change policies. Similar patterns of top-down influence were found during the COVID-19 pandemic, where differences in conservative and liberal elite communication on social media (Green et al., 2020) and in news media content (Ruisch et al., 2021) accounted for the ideological gap in protective health behavior (e.g., Clinton et al., 2021).

The proposed relation between political conservatism and a focus on the past can also be detected in such top-down influences, specifically in the communication of political elites that differ in their temporal references. For instance, campaign slogans of right-wing politicians around the world refer to the past: US presidents Ronald Reagan and Donald Trump claimed to *make America great again*, Brexit campaign chief Dominic Cummings wanted to *take back control*, UKIP leader Nigel Farage stands up for those who want their *country back*, and French presidential candidate Marine LePen aimed to *remettre la France en ordre* (engl.: put France back in order; see Lammers & Baldwin, 2020). The desire to return to aspects of the country's past also shapes the language conservatives use in their political speeches. Robinson and colleagues (2015) analyzed 145 State of the Union addresses and found that Republican presidents used significantly more past-tensed verbs than Democrats. The same study also investigated conservative and liberal media content and found the same difference in language usage on the two camps' news websites. Similarly, such differences appeared in Congressional speeches during the COVID-19 pandemic, where Republicans constantly favored past-focused expressions more than Democrats did (Park & Bark, 2021). Moreover, Sterling and colleagues

(2020) analyzed the linguistic style of conservative versus liberal social media users on Twitter and found that conservatives were more likely than liberals to send tweets that referenced the past, resistance to change, and tradition. This was supported by a study by Jones and colleagues (2018) who investigated the expression of personal values in congressional tweets and showed that Republican members of the US congress focused more often on traditional values than Democratic members did. Together, these findings illustrate that differences in temporal orientation between conservatives and liberals manifest in top-down political elite communication, including political speeches, news websites, and social media content.

In summary, delving into existing research on differences between conservatives and liberals reveals that conservatives' respect for the past and its traditions is evident throughout the literature. Both bottom-up as well as top-down approaches include indirect and even some direct references to conservatives' (vs. liberals') orientation toward the past and support the idea that ideological differences in political positions can be traced back to such temporal orientations. The initial aspiration of political conservatism, namely the desire to conserve and preserve aspects from the past, seems to be woven throughout contemporary political psychological research on ideology, underscoring its fundamental role in shaping conservative political attitudes.

1.3 The Relation between Political Ideology and Nostalgia

The apparently strong bond between political conservatism and a focus on the past suggests that nostalgia, a past-related sentiment, may be an emotion connected to this ideology. In line with this assumption, conservatism has been characterized as the "politics of nostalgia" (Schlesinger, 1955). Nostalgia is defined as a "sentimental longing for one's past" and can, for instance, refer to personal memories from one's childhood (Sedikides et al., 2008; Wildschut et al., 2006). Having initially been considered as a medical condition (Sedikides et al., 2004), it is today seen as a predominantly positive emotion with a slight bittersweetness that can refer to many objects from the past like persons, events, or places (Wildschut et al., 2006).

1.3.1 Conservatism and Nostalgia

In line with the above characterization, conservative participants have indeed been found to score higher on measures of dispositional nostalgia than liberal participants (e.g., Lammers & Baldwin, 2018; Smeekes et al., 2015). Moreover, Lammers and Proulx (2013) showed that autobiographically writing about one's past increases political conservatism. However, more than longing back for experiences from the personal past, conservative political ideology is primarily defined by a desire to return to past society, suggesting that conservatives experience nostalgia for their nation's past. Such a sentimental longing for the past of the national ingroup is called *collective nostalgia* (Wildschut et al., 2014). This group-based emotion refers to aspects of the past that are relevant for one's social identity, even for aspects that one has not experienced oneself. In other words, whereas personal nostalgia refers to "the way I was", collective refers to "the way we were" (Baldwin et al., 2018; Wildschut et al., 2014). Collective nostalgia increases people's positive feelings toward the national ingroup (Wildschut et al., 2014) and helps them cope with societal change by restoring their self-continuity, a feeling of connection between their past and present (Sedikides et al., 2015). Since conservatives in Western societies tend to believe that the past has been a better and more glorious time than the present (Bennett, 2019; Lammers & Uğurlar, 2023), feelings of collective nostalgia may help them cope with the perception that society is at a decline. For those who feel lost in a time that is rapidly changing and moving away from the idealized past, nostalgically longing back to "the good old days" provides a reconnection to that time. Consistent with this notion, researchers have argued that populist radical right parties make use of this sentimental longing for the past and appeal to people's collective nostalgia in their political communication. For instance, right-wing politicians use language that refers to nostalgia to argue that immigration threatens the nation's traditional values and norms. Mols and Jetten (2014) investigated speeches of four popular right-wing political leaders and found that these leaders depict the nation as experiencing a downturn, moving from a glorious past to

a dark future through immigration and multiculturalism. Other research supports this by showing that anti-immigration attitudes are related to stronger feelings of collective nostalgia (Smeekes et al., 2018; Smeekes & Verkuyten, 2015). As argued by Smeekes and colleagues (2021), support for populist radical right parties and their anti-immigration attitudes is often grounded in the parties' nostalgic portrayal of a united, more homogeneous community in the national past. This portrayal appeals to individuals who feel left behind by the rapid societal changes and want to return to that past. In line with this, the researchers found that collective nostalgia was related to higher support and voting intentions for populist radical right parties (Smeekes et al., 2021).

A line of correlational research adds to this picture by providing additional evidence for the connection between conservative ideology and collective nostalgia. For instance, Smeekes and colleagues (2015) asked Dutch participants how nostalgic they were for the way the Netherlands was (e.g., people and society) and found that this collective nostalgia was positively correlated with right-wing self-identification. Behler and colleagues (2021) used the same measure and adapted it to the US context, where they also found that conservatives showed higher scores on collective nostalgia. Lammers and colleagues (Lammers & Baldwin, 2018; Lammers & Uğurlar, 2023) asked US participants to indicate how nostalgic they feel about “the way society was”, “morals and values society had”, “the way people were”, and “the way the social system worked” (items taken from Baldwin et al., 2018), and also found significant correlations between conservative ideology and feelings of collective nostalgia.

1.3.2 Liberalism and Nostalgia

The literature reviewed so far suggests that feelings of nostalgia are very prominent on the conservative side of the political spectrum. However, this does not imply that liberals do not experience positive feelings toward the past as well. In fact, nostalgic communication is also used by liberal politicians. For instance, Democratic former president Barack Obama appealed to people's collective nostalgia to promote his immigration reform by stating that

“what makes somebody an American is not just blood or birth, but allegiance to our founding principles” (Obama, 2013).

Importantly, the literature on collective nostalgia and conservatism reviewed in the previous section only assessed collective nostalgia in general, not for specific aspects of the national past. However, nostalgia can be related to various elements of the past and is not necessarily connected to aspects aligned with conservative values. Some initial evidence for this was provided by recent research showing that in societies where the past has been more liberal and which have developed in a more conservative direction (e.g., Turkey), liberals are more prone to experience nostalgia for past times, thus challenging the idea of a steady connection between political conservatism and nostalgic longing for the past (Lammers & Uğurlar, 2023). But also in Western countries with a rather conservative history, conservatism is not always related to higher nostalgia. For instance, research has shown that nostalgia is only related to higher support for conservative former president Donald Trump if it focuses on the past’s lower political correctness, not on its greater decorum (Lammers & Baldwin, 2020). Thus, a crucial aspect to consider is the content of desired aspects of the past.

In fact, research on collective nostalgia has shown that the content of nostalgia differs between conservatives and liberals, or in other words, that conservatives long for different aspects of the past than liberals. For instance, Stefaniak and colleagues (2021) tested conservatives’ and liberals’ collective nostalgia for a more homogeneous versus more open society of the past in the United States, Canada, and England. Participants indicated their nostalgic feelings for a time when the country “was more open to cultural diversity” (example item assessing openness-focused nostalgia), versus when it “was more homogeneous (i.e., the same) in terms of cultural and religious beliefs” (example item assessing homogeneity-focused nostalgia). They found that while conservatives’ nostalgia for the homogeneity of the past was higher than liberals’, this pattern reversed for openness-focused nostalgia, with liberals being more nostalgic for this aspect of the past. These differences in nostalgia content were, in turn,

related to differences in ideological preferences: Openness-focused nostalgia negatively and homogeneity-focused nostalgia positively mediated the effect of conservative/right-wing (vs. liberal/left-wing) ideology on more negative feelings toward outgroups, higher desire for social distance toward outgroups, and more anti-immigrant attitudes (Stefaniak, Wohl, Sedikides, et al., 2021; see also Wohl et al., 2020b).

Moreover, in line with the idea that liberals are also nostalgic for specific aspects of the past and that nostalgia content is not exclusively conservative, Fetterman and colleagues (2021) found that particularly liberals are strongly nostalgic for the presidency of Barack Obama. Illustrating the independence of nostalgia from one specific ideology, this Obama nostalgia predicted political outcomes (e.g., political attitudes, voting intentions, political engagement) above and beyond political ideology. These findings suggest that conservatives and liberals generally share the potential of experiencing nostalgic feelings for the past and that nostalgia is not exclusive for conservatism.

Together, the presented studies show that liberals primarily tend to be nostalgic when specific aspects of the past are highlighted (e.g., openness, Obama), whereas conservatives are also nostalgic when no specific cues are activated. This suggests that the strong evidence that conservatives are more prone to experience nostalgia (e.g., Lammers & Baldwin, 2018) may exist because the “baseline” of nostalgia is related to more conservative ideas. This fits with the results from Wohl and colleagues (2020b) who found no significant difference between nostalgia for a homogeneous society and unspecified nostalgia (i.e., the control condition) in their studies, suggesting that the standard nostalgia that US participants perceive may be related to more conservative values. This is particularly evident in Western societies, which have transitioned from conservative values to more liberal ones (Lammers & Uğurlar, 2023).

Nonetheless, the finding that both conservatives and liberals are nostalgic for different aspects of the past suggests that political communication that appeals to partisans’ nostalgia can also be fruitful on the liberal side of the political spectrum. In line with this idea, research

has shown that populist speeches, which often glorify the past, can increase both personal and collective nostalgia across the political spectrum, independent of political orientation (Van Prooijen et al., 2022). In summary, despite existing evidence for a correlation between conservatism and nostalgia (e.g., Lammers & Baldwin, 2018; Smeekes et al., 2015), this evidence does not allow the inference that liberals do not experience nostalgia at all.

1.4 The Past as a Tool for Political Rapprochement

An extensive line of theoretical and empirical research supports the idea that the past plays an important role for the development of and adherence to political preferences. Based on these insights, I propose that focusing on the past does not only contribute to the understanding of ideological differences but can also help bridging the divide by decreasing political opposition and increasing feelings of unity. Although the desire to maintain the past is characteristic for conservatism, the literature suggests that referring to the past can be an effective way to appeal to various ideological groups. I propose that appealing to people's nostalgia by using past-focused political communication can reduce polarization on both sides of the political spectrum, albeit stronger for conservatives.

1.4.1 Decreasing Opposition Among Conservatives

Chapter 1.1 reviewed various bottom-up and top-down approaches to differences between conservatives' and liberals' political preferences. Jost and colleagues (2009) argued that to understand ideological outcomes, researchers must consider the interaction of bottom-up psychological dispositions and top-down socialization processes. The integration of both approaches is a promising practice because bottom-up influences can be used to explain why top-down factors appeal to some people whereas they do not appeal to others. In other words, psychological needs and motivations can be used to explain why certain people like or dislike specific political ideas or figures (Jost et al., 2009; see also Jacquet et al., 2014). Moreover, whereas most research on bottom-up influences is correlational and only measures existing beliefs and motives, the inclusion of top-down influences enables researchers to experimentally

manipulate specific aspects of political communication (see Lammers & Baldwin, 2022). The present work uses these benefits by combining both bottom-up and top-down approaches. In the presented studies, different policies, politicians, and citizens (top-down factors) are framed according to people's values and preferences (bottom-up factors), which allows to investigate interactions between individuals and situational cues.

Previous research has already investigated the potential of framing political ideas with an appeal to specific aspects of the recipients' personalities to reduce political opposition. Especially in recent years, researchers tried to develop health communication strategies that reduce polarization in the context of the COVID-19 pandemic by matching political messages with the recipients' characteristics. It was demonstrated that policies in favor of social distancing, face masks, and vaccinations were perceived as more effective and received stronger support when they were in line with the religious beliefs of participants (DeMora et al., 2021), their political identity (Pink et al., 2021), and their moral values (Luttrell & Petty, 2021; Luttrell & Trentadue, 2023). For instance, Luttrell and Trentadue (2023) used insights from moral foundations theory (Haidt, 2012; see also Chapter 1.2.1) to manipulate the alignment of COVID-19 policies with people's moral preferences. More specifically, they framed messages about protective health measures in terms of individualizing moral foundations (e.g., by presenting face masks as a "fair solution to this harmful pandemic") or binding moral foundations (e.g., by presenting face masks as a "patriotic solution to this disgusting pandemic"). They found a significant interaction of participants' political ideology and moral framing condition on perceived message effectiveness, showing that conservatives rated the messages as more effective when they were framed with a focus on binding moral foundations, whereas liberals found messages with an individualizing moral framing more effective. These types of moral framing also increased conservatives' (in the binding moral foundations condition) and liberals' (in the individualizing moral foundations condition) intentions to wear a face mask.

Based on the idea of matching aspects of a persuasive appeal to the recipients' preferences, I propose that appealing to the past in political communication can be an effective tool to bridge the political divide. Given conservatives' desire to maintain aspects from the past (as reviewed in Chapter 1.2), appealing to this desire should increase their support for certain political ideas. There is already a line of research that provides first evidence for this idea. For instance, framing climate change policies as a way to restore the past can increase conservatives' support for these policies, although they usually resist them (Baldwin & Lammers, 2016; Clark & Adams, 2023; Herberz et al., 2023; but see Kim et al., 2021; Stanley et al., 2021). The same effect was demonstrated for other topics like gun control, immigration, or social equality (Lammers & Baldwin, 2018). Importantly, framing these messages as a return to the past did not reduce liberals' support, which suggests that there are no unintended backfire effects. These insights show that manipulating the temporal frame of a political message to make it appear more consistent with the past can reduce opposition to specific political ideas among conservatives without changing the endorsement of the messages among liberals. Thereby, an ideological rapprochement concerning these specific ideas can be induced by matching persuasive appeals with conservatives' preferences for the past, thus reducing their opposition.

1.4.2 Increasing Unity Across Ideologies

In addition to using insights from previous findings on framing effects, I argue that communicating with a focus on the past offers an additional advantage that goes above and beyond the benefits of other forms of framed communication (e.g., moral framing): Although the effects are expected to be stronger among conservatives, past-focused communication has the potential to appeal to all recipients, irrespective of their political orientation. Unlike moral framing, which only appeals to people who hold the concrete framed moral beliefs (e.g., framing messages in terms of binding moral foundations is only endorsed by conservatives; Luttrell & Trentadue, 2023), referring to the past can serve a uniting function. In fact, although

the past is particularly meaningful for conservatives, most people, including liberals, have positive thoughts about the past (Sedikides et al., 2008; Wildschut et al., 2006). In contrast, specific moral preferences differ more strongly between liberals and conservatives (Graham et al., 2009; Haidt & Graham, 2007; Hurst & Stern, 2020). Steering recipients' focus to the past can be a promising tool for promoting unity, since it makes people think about the roots they share. Focusing on aspects that one shares with opponents (i.e., similarities) can have several psychological benefits. For instance, thinking about similarities rather than differences between social groups leads to more positive evaluations in general (Alves et al., 2017; Unkelbach et al., 2019). Members of opposing groups usually underestimate similarities between their own group's values and the outgroup's values (Hanel & Wolf, 2020; Wolf et al., 2020). Reminding conservatives and liberals of their shared origins in the past may increase their perception of shared values, which elicits a sense of connectedness (Wolf et al., 2020) and improves attitudes toward political opponents and other outgroups (Hanel et al., 2019; Hanel & Wolf, 2020; Wolf et al., 2021). A focus on the shared past could thus reduce perceptions of group discreteness, leading to higher feelings of unity.

Moreover, apart from highlighting similarities between opposing groups, evoking nostalgic feelings in partisans can generally activate more positive feelings toward the overarching group (e.g., Americans, independent of their political ideology). Collective nostalgia has been shown to strengthen a feeling of connection to the group and its shared past, providing a sense of continuity in times of uncertainty (Wildschut et al., 2014; Wohl et al., 2020b). By doing so, it also acts as a source of identity and community. When people wax nostalgic about the past of their social group, their focus is steered to the essence of their group and what defines it, leading to a desire to protect the group's future (Wohl et al., 2020a; Wohl et al., 2020b). Nostalgia generally increases feelings of connectedness to peers: After being induced with nostalgia, participants felt more protected, were less afraid of attachment, showed lower avoidance behavior, and felt more interpersonal competence (Wildschut et al., 2006;

Wildschut et al., 2010). Taken together, evoking past-related, nostalgic thoughts is a promising tool to decrease political animosity. It can appeal to all people, irrespective of their political self-identification, and facilitates feelings of unity and connectedness, which reduces polarization across the political spectrum.

Throughout the presented research, I propose that appealing to partisans' past can help bridge the political divide by reducing opposition to political ideas or figures associated with the political outgroup. Based on the idea that the desire to maintain the past is fundamental in political conservatism, I propose a stronger appeal of past-focused communication to conservatives and will focus on this in the first two chapters of the empirical part. However, given that positive thoughts about the past can occur for all people, irrespective of political preferences (Sedikides et al., 2008; Wildschut et al., 2006), I assume that appealing to the shared past can effectively reduce outgroup animosity across the political spectrum, which will be the central focus of the final chapter of the empirical part.

Chapter 2: Highlighting the Old in the “New Normal”: Appealing to Conservatives’

Nostalgia Decreases Opposition to COVID-19 Measures

The following work investigates the relevance of the past for the ideological gap in partisans’ support for specific policies at the example of the COVID-19 pandemic. More precisely, it tests whether conservatives’ (compared to liberals’) strong opposition to protective health measures (see Clinton et al., 2021; Gollwitzer et al., 2020) can be related to their stronger collective nostalgia for past society. Furthermore, this research examines the potential of past-focused political communication to reduce those ideological differences. Chapter 2 is based on the following manuscript:

Schulte, A., Baldwin, M., & Lammers, J. (2023). *Highlighting the old in the “new normal”:*

Appealing to conservatives’ nostalgia decreases opposition to COVID-19 measures.

Manuscript invited for revision by *Social Psychology*.

Please note that some changes in citation style and formatting were undertaken to keep the layout of this dissertation consistent. No changes were made to the content of the article.

Abstract

A wide ideological gap frustrates an effective response to the COVID-19 pandemic. Whereas most liberals support protective measures, many conservatives oppose them. Five studies ($N_{\text{total}} = 3,090$) demonstrate that American and German conservatives' opposition to COVID-19 measures arises partially from nostalgic emotions. We show that framing COVID-19 measures as a return to the past reduces conservatives' opposition to face masks and vaccinations. An internal meta-analysis shows that although the overall effect of temporal framing is significant, it is small. This research identifies collective nostalgia as a theoretically relevant antecedent to conservative opposition to COVID-19 measures. It also shows that appealing to nostalgia can have practical benefits, although the impact of those benefits is yet to be determined.

Keywords: ideology, conservatism, nostalgia, framing, COVID-19

2.1 Introduction

No other global event has defined the last few years as much as the COVID-19 (SARS-CoV-2) pandemic. Since its initial outbreak, the virus has infected hundreds of millions, has killed millions, and has had a deep impact on social and work relations across the globe. One obstacle that has prevented effective action to fight the virus is political division and opposition, in particular among political rightists and conservatives (for overviews, see Clinton et al., 2021; Gollwitzer et al., 2020; Green et al., 2020; Ruisch et al., 2021). Whereas liberals typically supported governmental restrictions to fight the spread of the disease, many conservatives refused or even protested against protective measures (Connaughten, 2021; Dyer, 2020; Funk & Tyson, 2020). Conservatives were more likely to believe that they are invulnerable to the virus or to think that others are overreacting (Calvillo et al., 2020; Christensen et al., 2020; Latkin et al., 2021). They were less inclined to show protective behaviors or follow health guidelines, such as physical distancing, mask-wearing, or handwashing than liberals (Gadarian et al., 2021; Kerr et al., 2021; Taylor & Asmundson, 2021; Weil & Wolfe, 2022). Finally, conservatives were also more likely to reject vaccinations than liberals (Callaghan et al., 2021; Weil & Wolfe, 2022).

2.1.1 Conservative Nostalgia and COVID-19 Responses

In the current manuscript, we contribute to a better understanding of why conservatives were more opposed to COVID-19 measures than liberals – also in the hope of better managing such opposition in any future pandemic. Of course, we realize that there are many answers to this question, but we propose that one reason behind conservative opposition to COVID-19 measures is their feelings of collective nostalgia for the past. Collective nostalgia is characterized as a longing for the past of one's social group (Wildschut et al., 2014). Particularly, collective nostalgia refers to a past that is associated with collective experiences and shared social identity – for instance those related to good times in the nation's past (Baldwin et al., 2018; Havlena & Holak, 1996). A wealth of literature links this specific

emotion to conservative political thinking. Conservatism started as a counter-revolutionary movement that sought to maintain the pre-revolutionary past (Burke, 1790). This focus on the past has become a central theme of conservatism. Conservative ideology is distrustful of change – in particular, change that does not connect to tradition and existing arrangements (Huntington, 1957; Kirk, 1953; Muller, 1997; Scruton, 1980). Compared to liberals, conservatives are more averse to radical change (Jost et al., 2003a; Jost et al., 2009) and instead look sentimentally back to the past (Lammers & Baldwin, 2018, 2020; although see Stefaniak, Wohl, Sedikides, et al., 2021 for a nuanced take on this idea).

Building on this, we propose that many of the COVID-19 measures are likely to invite criticism among conservatives because these measures are such a strong deviation from a central element of life in the past. These measures reduced the freedom to spontaneously meet other people, visit restaurants, or go to the cinema. Traditional customs in our society, such as handshaking, were replaced by new alternatives. The core value in our society that people were free to wear what they like was replaced by the requirements to wear face masks. All these changes strongly deviate from the past and therefore – we argue – easily invite resistance to this ‘new normal’ among those high in nostalgia.

Following this logic, however, we predict that presenting these same measures to fight the pandemic in a way that hides this discontinuity and instead presents them in a way that makes them appear to be congruent and consistent with the past, takes the sting out of conservatives’ opposition. This prediction builds on work showing that changing the *temporal frame* of a message, so that new political projects are not perceived as a deviation from, but as a return to the past, can increase support among conservatives. For example, conservatives often resist policies to fight climate change but endorse such policies if framed as a way to restore the past (Baldwin & Lammers, 2016; Lammers & Baldwin, 2018).

2.1.2 Overview of Studies

We conducted six studies to test the idea that conservatives' stronger nostalgia for past society can partially explain their opposition to COVID-19 measures and that framing these measures as consistent with the past reduces that opposition. Studies 1 and 2 test whether conservatives' attitudes toward COVID-19 measures are predicted by feelings of collective nostalgia. The next two studies test whether the ideological divide between conservatives and liberals about COVID-19 measures can be reduced by framing face masks (Study 3) or vaccinations (Study 4) as a return to the past, compared to when they are framed as a move toward a new future. Study 5 investigates the moderating role of partisan identity. Finally, Study 6 reports an internal meta-analysis to test the overall effectiveness of past-focused communication about COVID-19 measures. All studies were preregistered. We note where we deviate from the planned analyses. Links are provided per study. We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the studies. Data, scripts, and materials are available on the Open Science Framework (OSF): https://osf.io/k7nyp/?view_only=74c4e4bfec1844c885f6d4a648db8965.

2.2 Study 1 – Attitudes toward COVID-19

In the first study, we test if conservatives show higher endorsement (than liberals) of political as well as non-political actors who criticize COVID-19 measures – and whether collective nostalgia mediates this association.

2.2.1 Participants and Design

In return for \$1.00, 400 American Cloudresearch.com users (39.5% women, 60.0% men, 0.5% other, mean age 40.5 years, 74.5% White, 7.2% Black, 10.3% Asian, 6.0% Hispanic or Latino, 2.1% other) took part. This sample size provides sufficient power ($1 - \beta = 90\%$) to detect small correlations ($\rho = 0.15$). As preregistered, three participants were deleted due to self-reported inattention. Initially, this study was part of another research line, preregistered here: https://aspredicted.org/FRX_DTQ.

2.2.2 Measures

We measured political ideology between *Strongly prefer Democrats* (1) and *Strongly prefer Republicans* (7), and between *Very Liberal* (1) and *Very Conservative* (7). The two items correlated strongly ($r = .87, p < .001$) and were combined into one index of ideology. We measured collective nostalgia using Baldwin and colleagues' (2018) four-item scale, asking for nostalgic feelings about “the way society was”, “morals and values society had”, “the way people were”, and “the way the social system worked”. Next, participants used two sets of four 7-point Likert items to indicate their attitudes toward two fictitious statements by a politician and by a fellow citizen that were both critical of COVID-19 measures (counterbalanced order). Table 2.1 lists descriptives, zero-order correlations, and reliabilities of all measures. See the online supplement on OSF for verbatim stimuli and item descriptions.

Table 2.1

Study 1: Descriptives, zero-order correlations, and internal reliabilities (Cronbach's alpha, in diagonal) for all measures

Variable	<i>M</i>	<i>SD</i>	1.	2.	3.	4.
1. Political Ideology	3.38	1.75	.93			
2. Collective Nostalgia	2.62	1.04	.43**	.89		
3. Attitude: Politician	2.78	1.86	.69**	.47**	.98	
4. Attitude: Fellow Citizen	2.09	1.63	.55**	.43**	.85**	.98

Note. ** $p < .001$.

2.2.3 Results

Compared to liberals, conservatives had a more positive attitude toward the COVID-19-critical politician, $b = 0.73, SE = 0.04, t(395) = 18.87, p < .001, 95\% CI [0.66, 0.81]$, and the COVID-19-critical fellow citizen, $b = 0.51, SE = 0.04, t(395) = 13.03, p < .001, 95\% CI [0.43, 0.59]$. Using Model 4 of the PROCESS macro for R (Hayes, 2013; 5000 bootstrap samples),

we tested if these relations were mediated by collective nostalgia. Focusing on the a-path of the mediation model, we found that, in line with our theorizing, conservatives (compared to liberals) showed stronger collective nostalgia, $b = 0.26$, $SE = 0.03$, $t(395) = 9.51$, $p < .001$, 95% CI [0.20, 0.31]. Focusing on the b-paths of the mediation, collective nostalgia was related to more positive attitudes toward both the COVID-19-critical politician, $b = 0.37$, $SE = 0.07$, $t(394) = 5.31$, $p < .001$, 95% CI [0.24, 0.51] and the COVID-19-critical fellow citizen, $b = 0.38$, $SE = 0.07$, $t(394) = 5.31$, $p < .001$, 95% CI [0.24, 0.52]. Consistent with our predictions, we found that conservatives' positive attitudes toward the politician and the fellow citizen were mediated by differences in collective nostalgia, indicated by positive indirect effects, $b_{\text{politician}} = 0.10$, $SE = 0.02$, 95% CI [0.05, 0.15], $b_{\text{citizen}} = 0.10$, $SE = 0.02$, 95% CI [0.06, 0.15].

2.3 Study 2 – Observing COVID-19 Rules

Study 1 shows that conservatives' positive attitude toward those critical of COVID-19 measures is mediated by feelings of collective nostalgia. To move beyond the limitations of self-reported attitudes, Study 2 focuses on behavioral intentions.

2.3.1 Participants and Design

A sample of 906 German adults (54.6% women, 45.0% men, 0.2% other, mean age 39.9 years) was recruited by the online panel provider respondi.com. This sample size allows us to detect small correlations ($\rho = 0.08$) with 90% power. These data were collected as part of a larger experimental study ($N = 2,640$) but following our preregistration (https://aspredicted.org/BTV_MBM), we only report the control condition data¹. Full data is reported by Dohle et al. (2023)². One participant was excluded because they did not report their political ideology. Table 2.2 lists descriptives, zero-order correlations and reliabilities of all measures. See the online supplement on OSF for verbatim stimuli and item descriptions.

¹ The data originally included two experimental and one control condition. Since we found an effect of condition in a secondary analysis, we only report the control condition data (as preregistered).

² We thank Simone Dohle and Tobias Wingen for including our scales in their study.

2.3.2 Measures

Participants indicated their political orientation between *Very Left-wing* (1) and *Very Right-wing* (7) and completed the same four items measuring collective nostalgia as in Study 1. Next, participants indicated on fifteen 7-point-Likert-items whether during the next four weeks they intended to maintain physical distance (five items), follow basic hand hygiene (four items), wear a face mask (four items), and get vaccinated (two items).

Table 2.2

Study 2: Descriptives, zero-order correlations, and internal reliabilities (Cronbach's alpha, in diagonal) for all measures

Variable	<i>M</i>	<i>SD</i>	1.	2.	3.	4.	5.	6.
1. Political Ideology	3.82	1.05	–					
2. Collective Nostalgia	2.99	1.00	.21**	.90				
3. Hand Hygiene Int.	5.37	1.73	-.10*	-.02	.92			
4. Physical Distancing Int.	4.85	1.93	-.15**	-.09*	.66**	.96		
5. Face Masks Int.	5.27	1.85	-.18**	-.14**	.63**	.78**	.92	
6. Vaccination Int.	3.86	2.45	-.12**	-.09*	.29**	.43**	.45**	.90

Note. Int. = Intentions. ** $p < .001$, * $p < .01$.

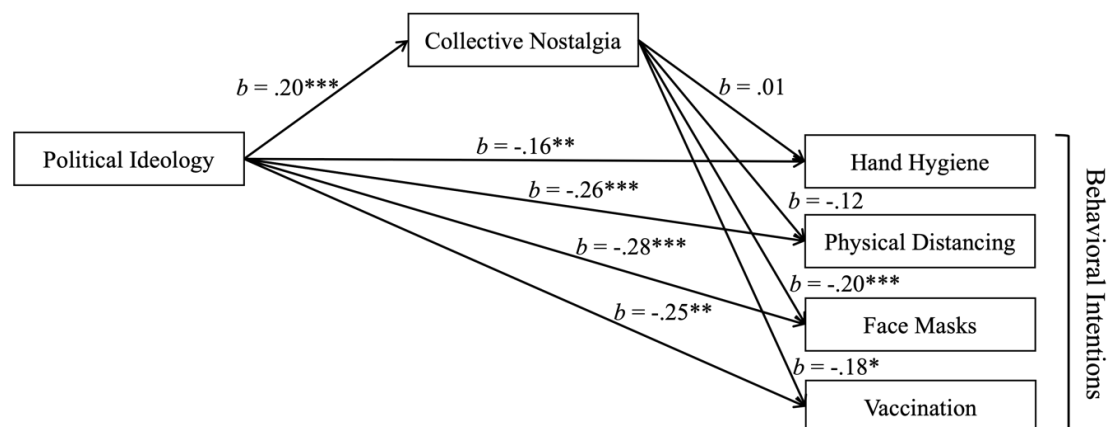
2.3.3 Results

Political conservatism was associated with a reduced intention to follow each of the four protective behaviors: performing hand hygiene, $b = -0.16$, $SE = 0.06$, $t(903) = -2.86$, $p = .004$, 95% CI [-0.26, -0.05], maintaining physical distancing, $b = -0.28$, $SE = 0.06$, $t(903) = -4.68$, $p < .001$, 95% CI [-0.40, -0.16], wearing a face mask, $b = -0.32$, $SE = 0.06$, $t(903) = -5.61$, $p < .001$, 95% CI [-0.44, -0.21], and getting vaccinated, $b = -0.28$, $SE = 0.07$, $t(903) = -3.63$, $p < .001$, 95% CI [-0.43, -0.13]. Yet conducting a mediation analysis with four outcome variables (using AMOS; Arbuckle, 2020), we found that there were only negative

indirect effects of ideology through collective nostalgia on intentions to wear face masks, $b_{\text{indirect}} = -0.04$, $SE = 0.01$, 95% CI [-0.07, -0.01], and on intentions to get vaccinated, $b_{\text{indirect}} = -0.03$, $SE = 0.02$, 95% CI [-0.07, -0.001], but not on intentions to maintain physical distance, $b_{\text{indirect}} = -0.02$, $SE = 0.01$, 95% CI [-0.05, 0.004], or intentions to perform hand hygiene, $b_{\text{indirect}} = 0.001$, $SE = 0.01$, 95% CI [-0.02, .003]. See Figure 2.1 for the full mediation model. A posteriori, we believe this difference in mediation makes theoretical sense, because findings suggests that indirect effects through nostalgia are strongest when the deviation with historical continuity is the largest. We return to this in the General Discussion.

Figure 2.1

Study 2: Effects of political ideology on intentions to follow four COVID-19 guidelines, mediated by collective nostalgia



Note. Values show unstandardized regression coefficients. $*p < .05$, $**p < .01$, $***p < .001$.

2.4 Study 3 – Framing Face Masks as a Return to the Past

Studies 1 and 2 provide initial evidence that conservatives' opposition to protective measures is to a certain extent rooted in their longing for the past. However, this evidence is only correlational. Our next two studies thus test experimentally whether framing protective measures as a return to past society reduces conservative opposition, compared to when these measures are presented as a move to a new future.

2.4.1 Participants and Design

In return for \$1.00, 450 American Cloudresearch.com users (46.2% women, 53.1% men, 0.7% other, mean age 39.8 years, 78.0% White, 6.4% Black, 8.2% Asian, 5.1% Hispanic or Latino, 2.2% other) were randomly assigned to one of two experimental conditions (past vs. future frame), with ideology measured as a second independent variable. This sample size provides 80% power to detect the effect size ($f^2 = .0256$) observed in a similarly designed study (Baldwin & Lammers, 2018, Study 2a; calculated with G*Power, Faul et al., 2007). As preregistered (https://aspredicted.org/WJV_L5W), two participants were excluded because of self-reported inattention.³

2.4.2 Procedure and Measures

We measured political ideology using the same two items as in Study 1 ($r = .90$, $p < .001$). Next, participants read a short statement by a fictitious politician in favor of wearing face masks. Depending on condition, the politician either called for wearing face masks to move toward a new future, or as a return to the past. Additionally, we included an illustration of a man wearing a futuristic (future frame) or an antique face mask (past frame, photo taken during the Spanish flu of 1918). See the online supplement on OSF for verbatim stimuli texts. After reading the text, participants indicated their endorsement of the statement and the person who made it on four 7-point Likert-scale items ($\alpha = .97$) between *Not at all* (1) and *Very much* (7). For exploratory purposes, we also measured collective ($\alpha = .97$) and general nostalgia ($\alpha = .91$; Baldwin et al., 2018).

2.4.3 Results

Temporal Framing Effect

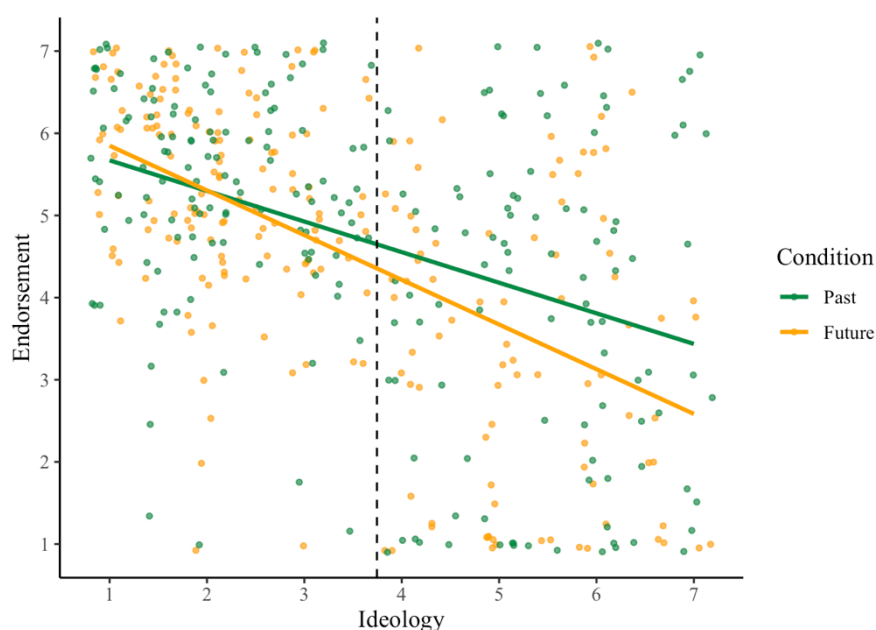
We expected that conservatives would reject a pro-face mask statement less if it was past-focused than if it was future-focused. In support of this prediction, we found a significant

³ We additionally preregistered to exclude participants who fail a manipulation check, but because of unanticipated confusions about the question we deviated from the preregistered procedure here (see the online supplement on OSF for the preregistered analysis).

interaction between political ideology and temporal focus condition on endorsement of the statement, $b = 0.17$, $SE = 0.08$, $t(444) = 2.11$, $p = .036$, 95% CI [0.01, 0.33]. See Figure 2.2. A simple slopes analysis showed that conservatism was negatively related to endorsement of the pro-face-mask statement, but more so in the future frame, $b = -0.54$, $SE = 0.06$, $t(444) = -9.08$, $p < .001$, 95% CI [-0.66, -0.43], than in the past frame condition, $b = -0.37$, $SE = 0.06$, $t(444) = -6.76$, $p < .001$, 95% CI [-0.48, -0.26]. A Johnson-Neyman (1936) analysis revealed that past-focused communication significantly ($p < .05$, two-sided) increased endorsement for conservatives (at 3.75, $z = 0.15$ or above on the political ideology scale), while leaving liberals (those below that value) largely unaffected.

Figure 2.2

Study 3: Interaction between ideology and temporal condition on endorsement of the statement



Note. Conservatives (high values on the x-axis) show lower endorsement of a pro-face masks statement than liberals (low values on the x-axis), but this ideological difference is attenuated if face masks are framed as a return to the past (green) compared to a move toward the future (orange). The dashed vertical line indicates the Johnson-Neyman (JN) significance region; differences between condition to the right of the dashed line are significant at $p < .05$. Data are jittered to avoid over-plotting.

Nostalgia

Using Model 15 of the PROCESS macro (Hayes, 2013; 5,000 bootstrap samples), we tested whether participants' collective nostalgia mediated the above-described interaction. Consistent with Studies 1 and 2, we found that conservatives were more nostalgic for past society than liberals, $b = 0.33$, $SE = 0.03$, $t(446) = 12.97$, $p < .001$, 95% CI [0.28, 0.37]. However, we found no interaction between collective nostalgia and temporal frame on endorsement, $b = 0.22$, $SE = 0.15$, $t(442) = 1.44$, $p = .150$, 95% CI [-0.08, 0.52]. Although the indirect effect of political ideology through collective nostalgia was significant in the past condition, $b = 0.09$, $SE = 0.04$, 95% CI [0.02, 0.17], and non-significant in the future frame condition, $b = 0.02$, $SE = 0.03$, 95% CI [-0.04, 0.08], this difference between conditions was not significant, indicated by a non-significant index of moderated mediation, $b = 0.07$, $SE = 0.05$, 95% CI [-0.02, 0.17]. However, exploratorily reanalyzing the data including the general nostalgia scale revealed a significant interaction of nostalgia and temporal frame on endorsement, $b = 0.56$, $SE = 0.20$, $t(442) = 2.83$, $p = .004$, 95% CI [0.17, 0.95], as well as a significant index of moderated mediation, $b = 0.07$, $SE = 0.03$, 95% CI [0.03, 0.13], suggesting that the effectiveness of past-focused pro-face mask statement may be rooted conservatives' higher general nostalgia (and not just their collective nostalgia) for the past.

2.5 Study 4 – Framing Vaccination as a Return to the Past

Study 3 showed that conservative opposition to face masks was partially reduced by framing the wearing of face masks as a return to past society. Study 4 conceptually replicates Study 3, but instead focuses on willingness to be vaccinated. In addition, we now draw a more specific comparison with a nearer past: the time before COVID-19. Therefore, and in response to the results from Study 3, we include the general nostalgia scale (Baldwin et al., 2018) which measures collective nostalgia as well as more personal feelings of nostalgia (e.g., related to personal experiences in the past).

2.5.1 Participants and Design

In return for \$1.00, 580 American Cloudresearch.com users (55.5% women, 43.4% men, 1.0% other, mean age 39.9 years, 72.6% White, 11.4% Black, 7.9% Asian, 5.5% Hispanic or Latino, 2.6% other) were randomly assigned to one of two experimental conditions (past vs. future frame), with ideology measured as a second independent variable. We increased power (compared to Study 3) to have 90% power detect a small effect ($f^2 = .025$; based on G*Power). Following our preregistration (https://aspredicted.org/S6M_JBH), four participants were excluded from analyses because of self-reported inattention.

2.5.2 Measures

After completing the same two political ideology items as in Studies 1 and 3 ($r = .90$, $p < .001$) and Baldwin et al.'s (2018) nostalgia scale ($\alpha = .90$), participants read a short pro-vaccine statement. Depending on condition, vaccinations were described as a move back to the past or toward the future. See the online supplement on OSF for the stimuli. Participants indicated their attitudes on four 7-point Likert-scale items ($\alpha = .94$). Finally, for exploratory purposes, participants answered additional items about their vaccination status, their general feelings toward vaccinations, and their own intention to get vaccinated against COVID-19.

2.5.3 Results

Temporal Framing Effect

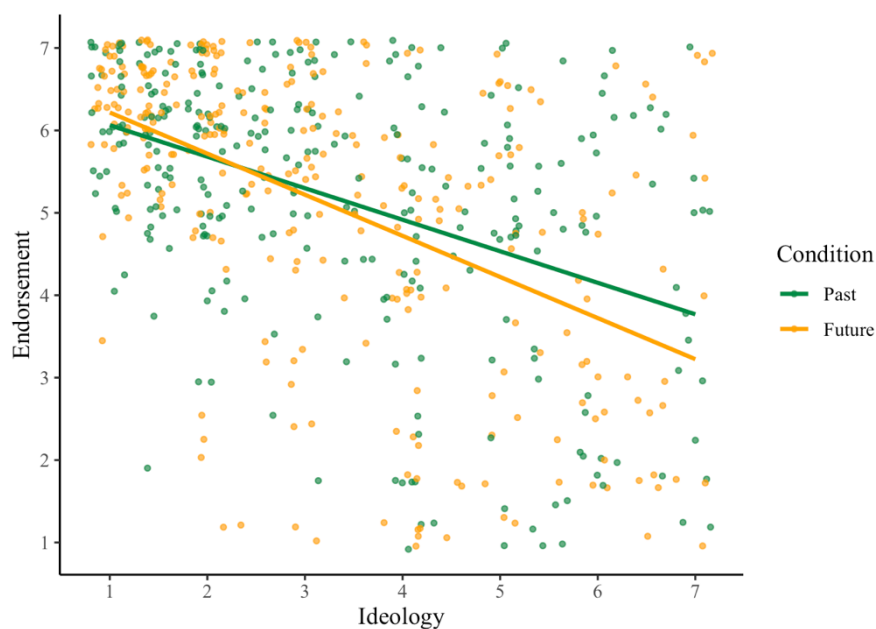
Contrary to our expectations, the predicted interaction between political ideology and temporal focus on endorsement of the pro-vaccination statement was not significant, although in the expected direction, $b = 0.12$, $SE = 0.07$, $t(572) = 1.68$, $p = .094$, 95% CI [-0.02, 0.25], see Figure 2.3. Simple slope analyses showed that conservatism was negatively related to endorsement of the statement, but more strongly in the future frame condition, $b = -0.50$, $SE = 0.05$, $t(572) = -10.06$, $p < .001$, 95% CI [-0.60, -0.40], than in the past frame condition, $b = -0.38$, $SE = 0.05$, $t(572) = -7.87$, $p < .001$, 95% CI [-0.48, -0.29].

Since a high percentage of participants reported that they were already vaccinated (63%; data collected in May 2021), we repeated the analysis controlling for vaccination status. Note that this analysis is not preregistered, but theoretically makes sense to partial out a priori attitude differences. Indeed, vaccination status positively predicted attitudes, $b = 1.60$, $SE = 0.12$, $t(571) = 13.05$, $p < .001$, 95% CI [1.36, 1.84], and controlling for this covariate the predicted interaction between political ideology and temporal focus was significant, $b = 0.12$, $SE = 0.06$, $t(571) = 1.98$, $p = .048$, 95% CI [0.001, 0.24].

We also exploratorily tested for an interaction between ideology and temporal focus on intentional variables and found a marginally significant interaction between ideology and condition on vaccination intention for unvaccinated participants, $b = 0.19$, $SE = 0.11$, $t(209) = 1.73$, $p = .084$, 95% CI [-0.03, 0.41]. See the OSF for details and further exploratory analyses.

Figure 2.3

Study 4: Interaction between ideology and temporal condition on endorsement of the statement



Note. Conservatives endorse a pro-vaccination statement less than do liberals. This ideological difference is (only descriptively) attenuated if vaccinations are framed as an opportunity to return to the past (green) compared to a move toward the future (orange). Data are jittered to avoid over-plotting.

Nostalgia

Returning to our preregistered analyses, using Model 15 of the PROCESS macro (Hayes, 2013; 5,000 bootstrap samples) to test whether conservatives' stronger nostalgia mediates the above interaction, we found no evidence for the predicted moderated mediation index, $b = 0.01$, $SE = 0.01$, 95% CI [-0.02, 0.03]. Although we did find an indirect effect of political ideology on endorsement through nostalgia in the past-frame condition, $b = 0.02$, $SE = 0.01$, 95% CI [0.003, 0.04], that same indirect effect was only slightly weaker in the future frame condition, $b = 0.01$, $SE = 0.01$, 95% CI [-0.008, 0.03]. Reanalyzing the data including only the subscale for collective nostalgia did not reveal any difference in the results (see additional analyses on the OSF).

2.6 Study 5 – The Role of Partisan Influence

Study 4 showed only limited evidence that using a past-focused temporal frame can reduce conservatives' opposition to vaccination. One reason for this lower effectiveness of past-focused framing might be the strong political polarization of COVID-19 and corresponding partisan entrenchment. To test this, Study 5 replicates Study 4 but orthogonally manipulates party affiliation of the speaker. This approach allows to test how strong the temporal framing effect is relative to partisan ingroup bias, and whether the two effects are interrelated or operate independently from each other.

2.6.1 Participants and Design

In return for \$1.00, 806 American Cloudresearch.com users (60% women, 39.6% men, 0.4% other, mean age 36.9 years, 72.3% White, 17.2% Black, 2.9% Asian, 4.5% Hispanic or Latino, 3.1% other) were randomly assigned to one of four experimental conditions of a 2 (temporal frame: past vs. future) \times 2 (political affiliation of the target: Democrat vs. Republican) between-participants design, with participants' ideology measured as a third independent variable. We used G*Power (Faul et al., 2007) to set sample size to detect a small

effect ($f^2 = .025$) with 90% power. Following our preregistration (https://aspredicted.org/N3Q_WB8), ten participants were excluded from analyses because of self-reported inattention. Additionally, 32 participants were excluded because they failed the attention check.⁴

2.6.2 Measures

Participants indicated their political ideology using the same two items as in Studies 1, 3, and 4 ($r = .80, p < .001$). Next, participants were presented with the same statements about vaccinations as in Study 4, and additionally received information on the person who made the statement (a Republican or a Democrat, see the online supplement on OSF for stimuli texts). Participants then indicated their endorsement of the statement and the person who made it on four 7-point Likert-scale items ($\alpha = .93$), between *Not at all* (1) and *Very much* (7). Finally, we measured participants' own vaccination status as a preregistered covariate.

2.6.3 Results

To compare the strength of temporal framing effects to partisan ingroup effects in the context of COVID-19, we tested a model with ideology, temporal framing, and their interaction as predictors first (Model 1), and then compared it to a model with political affiliation of the target and all interactions included as additional predictors (Model 2; see Table 2.3). Both models included participants' vaccination status as covariate.

Model 1 found a marginally significant political ideology \times temporal frame interaction on endorsement, $b = 0.13, SE = 0.06, t(759) = 1.96, p = .050, 95\% CI [-0.00, 0.25]$, indicating that using a past frame descriptively increased conservatives' endorsement of the pro-vaccination statement.

Model 2 then added the target's political affiliation as a predictor. This showed first of all a significant interaction between political ideology and the speaker's party affiliation,

⁴ Excluding participants who failed the attention check goes beyond our preregistered exclusion criteria. However, since the effects' significances do not differ between the two samples, we decided to report the data from attentive participants only.

$b = 0.34$, $SE = 0.09$, $t(755) = 3.79$, $p < .001$, 95% CI [0.16, 0.51]. Unsurprisingly, we thus found a partisan ingroup bias, meaning that participants endorsed statements by their ingroup more than statements by the outgroup. The political ideology \times temporal frame interaction was still marginally significant, $b = 0.15$, $SE = 0.09$, $t(755) = 1.72$, $p = .086$, 95% CI [-0.02, 0.33]. The three-way interaction between ideology, temporal frame and the speaker's party affiliation was not significant, $b = -0.03$, $SE = 0.13$, $t(755) = -0.24$, $p = .807$, 95% CI [-0.28, 0.22]. See Figure 2.4.

A Johnson-Neyman analysis revealed that in the Democrat condition, a past focus significantly (at $p < .05$, two-sided) increased endorsement for conservatives (at 4.41, $z = 0.11$ or above on the political ideology scale), while leaving liberals (those below that value) largely unaffected. In the Republican condition, a past focus significantly increased endorsement for moderates and conservatives (at 2.49, $z = -1.08$ or above on the political ideology scale), while leaving only extreme liberals unaffected.

Table 2.3

Study 5: Regression results using endorsement of the statement as the criterion

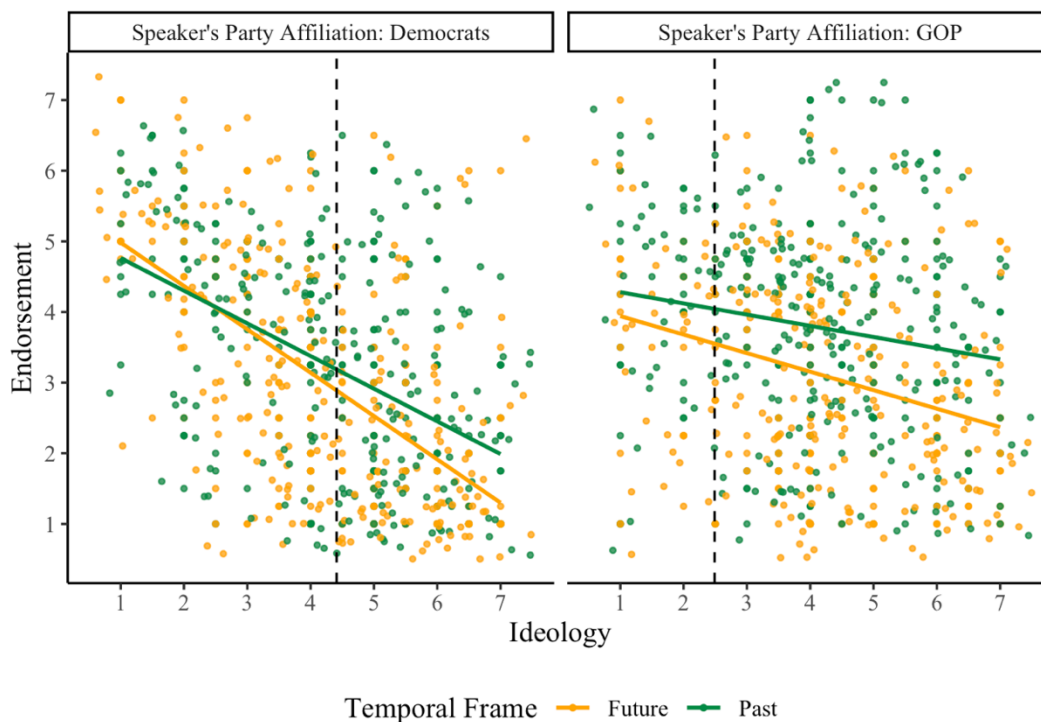
Predictor	<i>b</i>	<i>b</i> 95% CI [LL, UL]	Fit	Difference
Model 1:				
(Intercept)	3.82**	[3.52, 4.12]		
Ideology	-0.41**	[-0.50, -0.32]		
Temporal Frame	0.43**	[0.22, 0.63]		
Vaccination Status	-0.89**	[-1.18, -0.59]		
Ideology × Temporal Frame	0.13	[-0.00, 0.25]		
			$R^2 = .207^{**}$	
			95% CI [.16, .25]	
Model 2:				
(Intercept)	3.75**	[3.42, 4.07]		
Ideology	-0.58**	[-0.70, -0.45]		
Temporal Frame	0.25	[-0.03, 0.54]		
Speaker's Party Affiliation	0.12	[-0.16, 0.40]		
Vaccination Status	-0.86**	[-1.16, -0.57]		
Ideology × Temporal Frame	0.15	[-0.02, 0.33]		
Ideology × Speaker's Party Affiliation	0.34**	[0.16, 0.51]		
Temporal Frame × Speaker's Party Affiliation	0.37	[-0.03, 0.76]		
Ideology × Temporal Frame × Speaker's Party Affiliation	-0.03	[-0.28, 0.22]		
			$R^2 = .246^{**}$	$\Delta R^2 = .038^{**}$
			95% CI [.19, .29]	95% CI [.01, .06]

Note. *b* represents unstandardized regression weights. *LL* and *UL* indicate the lower and upper

limits of the confidence interval. $**p < .001$.

Figure 2.4

Study 5: Three-way interaction between ideology, temporal condition, and the speaker's party affiliation on endorsement of the statement



Note. Conservatives endorse a pro-vaccination statement less than do liberals, but this ideological difference is attenuated if the statement was made by a GOP member (right graph) compared to a Democrat (left graph). Conservatives also descriptively show higher endorsement of the statement when it is framed as a return to the past (green) compared to a move toward the future (orange). Dashed vertical line indicates the Johnson-Neyman (JN) significance region (at $p < .05$). Data are jittered to avoid over-plotting.

2.7 Study 6: Internal Meta-Analysis

Although Study 3 showed support for the idea that using a past-focused frame increases conservatives' support for COVID-19 measures (consistent with Lammers and Baldwin, 2018), Studies 4 and 5 only found weak evidence. Although the effects were in the predicted direction, the effects were not significant. To establish the overall effect size of this temporal framing

across studies, we decided to conduct a multilevel Integrative Data Analysis (IDA; Curran & Hussong, 2009) including the three latter studies and a fourth study that focused on attitudes toward physical distancing. Results did not show the expected interaction effect, although the data were in the expected direction ($p = .147$, see the online supplement on OSF for this analysis). After integrating all four datasets ($N = 2,240$; political ideology centered within each study), we tested a mixed-effects model with attitudes toward the various COVID-19 measures as outcome variable. We included ideology as predictor in Step 1, and the interaction of ideology and temporal focus in Step 2. Both the intercept and the slope of ideology were allowed to vary across studies to account for the different experiments investigating different COVID-19 measures. Across studies, conservatism significantly predicted lower endorsement of the statements, $b = -0.39$, $t(2234) = -10.42$, $p < .001$, 95% CI [-0.46, -0.31]. This main effect was qualified by a significant interaction between ideology and temporal focus, $b = 0.13$, $t(2232) = 3.50$, $p < .001$, 95% CI [0.06, 0.20]. Simple slopes analyses showed that when a future frame was used, conservatives opposed the COVID-19 measures more than did liberals, $b = -0.46$, $t(1106) = -11.50$, $p < .001$, 95% CI [-0.54, -0.38]. This effect was about a third smaller in size (comparing the two unstandardized beta-weights) when a past frame was used, but remained significant, $b = -0.33$, $t(1122) = -9.20$, $p < .001$, 95% CI [-0.40, -0.26].

2.8 General Discussion

Six studies tested the role of collective nostalgia in shaping conservative opposition to protective measures against COVID-19. Studies 1 and 2 found evidence for the mediating role of collective nostalgia between political conservatism and intentions to perform protective behavior. Building on this, we then tested whether framing these measures as a return to the past (vs. a move toward the future) reduced conservatives' opposition to wearing face masks (Study 3) and being vaccinated (Studies 4 and 5). Study 3 showed a significant interaction in the expected direction, but Studies 4 and 5 only found weak and non-significant support for that same idea. A sixth study meta-analytically combined these three and a fourth study and

found that although conservatives' opposition to COVID-19 measures is reduced by framing them as a way to return to the past (vs. the future), conservative opposition was only partially attenuated. Study 5 additionally compared the effectiveness of temporal framing to partisan ingroup effects. Results showed that, despite strong differences emerging from partisan ingroup preferences, the speaker's political affiliation did not moderate the effectiveness of the temporal framing effect. In other words, even though temporal framing cannot overcome the strong ingroup bias, it can still (slightly) increase support among conservatives.

2.8.1 Applied Implications

Measures to fight the COVID-19 pandemic have often been advocated by pointing to their benefits for the future. For instance, experts have stated that the nation "cannot move forward" until everybody is vaccinated (Maxmen, 2021) or that global vaccinations raise "hope of a shared future without COVID-19" (Dahir, 2021). Our findings suggest that conservatives' attitudes toward COVID-19 measures may be increased by referring to the pre-pandemic past more often, instead of solely focusing on the post-pandemic future. At the same time, we stress that the interaction effects that we identified are small. Our integrative data analysis (Study 6) showed that the temporal framing manipulation reduced conservatives' opposition significantly but only slightly. Moreover, Study 5 directly compared the effect of the temporal framing manipulation with the effect of the partisan group identity manipulation and found that the effect of temporal framing was only about half as large as that of group identity (44%, when comparing the two unstandardized beta-weights).

On the other hand, in practical terms, the small size of the effect is compensated for by its feasibility; changing the temporal focus of communication is easy. Put differently, although results of Study 5 show that conservatives' agreement with a politician's pro-vaccine statement can be increased more effectively by changing the partisan identity of the politician, in reality this is less feasible. Furthermore, data suggests that the temporal framing effect operates independently from partisan ingroup effects. Therefore, changing the temporal frame can be

effective for both liberal and conservative politicians. Finally, even if the temporal framing effect is small in the context of COVID-19, even minor changes in people's willingness to perform protective health behavior may be an important contribution to the fight against the virus.

Moreover, it is known that bridging moral divides is more effective when interlocutors communicate with experience over facts (Kubin, et al., 2021). If appeals to “the way things used to be” resonate with conservatives' experiences and emotions, it may be the case that the small effects we see here compound over time, allowing these messages to break down the walls that so strongly separate people across party lines.

2.8.2 Theoretical Implications

These findings contribute to an emerging literature showing the role of nostalgic feelings for the past in shaping political judgment, particularly among conservatives (Baldwin & Lammers, 2016; Lammers & Baldwin, 2018; 2020). Although the current effects are consistent with these earlier effects, they seem to be descriptively weaker than those observed earlier. Specifically, comparing the effect of the manipulation on a variety of political topics, Lammers and Baldwin (2018) found, meta-analytically across 12 studies, that the relation between ideology and endorsement in the control- or future-frame conditions was virtually blocked (i.e., no longer significant) when using a past frame. In contrast, here we found that using a past-focused frame only *attenuated* disagreement – reducing the negative correlation between ideology and endorsement by about a third, to a smaller but still sizeable difference when using a past-focused frame.

One possibility is that the higher personal involvement associated with COVID-19 reduces the effect of the temporal focus manipulation. Where earlier work focused on abstract policy issues that all relate to the “culture wars” between liberals and conservatives (climate change, gun laws, free speech, political correctness), the pandemic directly concerns the health and lives of participants and their loved ones. The central or deep information processing that

may result from this typically reduces a reliance on peripheral cues (such as the temporal frame) and shifts attention to more central aspects of a message (Petty & Cacioppo, 1986; see also Lammers & Baldwin, 2018, Study 7).

Another, related explanation is that it is the threat of the pandemic for people's health and life and the resulting uncertainty may undermine the effect of the manipulation, because such existential and epistemic threats lead people to defend their group's beliefs and worldviews (Greenberg et al., 1986; Heine et al., 2006; Proulx & Heine, 2006). Therefore, the threat of COVID-19 may lead conservatives to reaffirm their values and oppose COVID-19 measures, given that such skepticism is often considered a litmus test of a conservative identity.

Finally, it may be more difficult to draw a clear link between the past and the present with regard to COVID-related policy and action. In past research, the past-focused frames on topics like climate change and gun control appealed to culturally significant images in the collective past (e.g., the kinds of guns that the founding fathers had; the way the Earth looked when the founders lived here before us). In the current studies, the past framing mentions how past generations responded to pandemics and shows participants images of people wearing masks during earlier pandemics. These messages may not bring to mind the same 'rose-colored' images of the past that would translate into strong support for the message. Given that nostalgia for the collective past is strongly related to glorification of the group (Baldwin et al., 2018), it may be the case that past-focused framing has its strongest effects for issues that can be clearly connected to a glorious aspect of the group's past.

2.8.3 Ideas for Future Research

A striking but non-predicted result is that Study 2 showed that collective nostalgia only mediates the relation between conservatism and opposition to face masks and vaccinations but not to physical distancing and handwashing. Correspondingly, the temporal framing effect was the strongest for face masks and vaccinations (Studies 3 and 4) and the weakest for physical distancing (discussed in Study 6). A posteriori, we believe this unexpected effect makes sense,

since a stronger perception of disruption in the continuity of national culture triggers stronger feelings of collective nostalgia (Smeekes et al., 2023). Distancing and handwashing are much less strong deviations from the past than wearing masks or receiving a novel vaccine. After all, maintaining some sense of personal distance and maintaining basic hand hygiene have been central elements of western culture – also before the pandemic. In contrast, mandatory face mask wearing may be seen as a particularly strong violation of an existing cultural norm that people are free to wear what they like. In fact, it is even possible that the strong opposition to face mask wearing is – at a deeper level – related to conservative opposition to the increasing prevalence of non-western face coverings, such as a niqab. Future research could test this more systematically.

Another unexpected finding is that we did not find a moderated mediation through collective nostalgia but only through general nostalgia in Study 3. Although the moderation through collective nostalgia, in line with our expectations, was significant for the past-focused message and non-significant for the future-focused message, this difference between conditions was not significant. Only when we included the general nostalgia scale (which also measures aspects of personal nostalgia), we found this difference. Together with the other studies, this finding suggests that nostalgia for both collective and individual aspects of the past play a role in conservatives' opposition to COVID-19 measures, which makes sense since the societal changes due to the pandemic have also affected people's personal lives. The experience of both personal and collective discontinuities thus triggers both personal and collective nostalgia, which are also positively related (Smeekes et al., 2023). Future research could investigate the distinct roles as well as the interplay of collective and personal nostalgia in more detail.

2.8.4 Strengths and Limitations

One weakness is that all but one of our studies were conducted using “professional” participants and that only one study (Study 2) used a high-quality (ISO 20252:2019 standard) dataset gathered by a professional agency. Recently, Webb and Tangney (2022) expressed

concerns with the quality of the former data type. We avoided such concerns using the various data quality mechanisms offered by Cloudresearch.com (Chandler et al., 2019; Hauser et al., 2022; Litman et al., 2017). These online samples have been demonstrated to offer high-quality data, mimicking results of more expensive representative samples (Berinsky et al., 2012; Buhrmester et al., 2011; Clifford et al., 2015).

A strength of our findings is that we do not only show the relevance of conservatives' nostalgia for their opposition to COVID-19 measures in the US but also in a large, high-quality German sample (Study 2). This suggests that the effect of a nostalgic longing for past society affects conservative opposition to COVID-19 measures across multiple countries and not just the USA (see Connaughten, 2021). Another strength is that although some studies focused on mere agreement with fictional statements, in Studies 2 and 4 we also tested stated behavioral intentions. Study 2 successfully demonstrated the relevance of conservatives' nostalgia for their lower intention to show protective behavior in the future. Moreover, Study 4 provided initial exploratory evidence for the effectiveness of past-focused temporal framing to increase conservatives' willingness to get vaccinated. The effect was only marginally significant, but this might be due to the reduced sample size since most participants were already vaccinated.

Another strength is that we conducted an internal meta-analysis including all conducted studies in this research line, thus avoiding any file-drawer effect. Finally, the conceptual replications of the temporal framing effect for various protective behaviors offer evidence that the effect of the framing manipulation generalizes to different aspects of people's attitudes to COVID-19 measures.

2.8.5 Conclusion

Five studies and an integrative data analysis show that conservatives' opposition to protective measures is at least partially due to their nostalgic longing for past society and that presenting COVID-19 measures as consistent with the past can reduce conservatives' opposition to such measures. Given that partisan differences in attitudes toward protective

measures predict their slower implementation (Adolph et al., 2021) and higher infection rates and pandemic-related deaths (Gollwitzer et al., 2020), a reduction of the political gap is essential in the fight against any pandemic. Our findings identify matching temporal communication to ideological differences in nostalgia as a small, but practically feasible opportunity to seek a political rapprochement that can help in preventing similar problems in any future pandemics or other similar societal events.

Chapter 3: The Cognitive-Motivational Roots of Conservatives' Desire for the Past

Chapter 2 demonstrated the effectiveness of past-focused political communication to reduce conservatives' opposition to COVID-19 measures. Although the effect seems to be smaller for COVID-19 policies than for others (see Baldwin & Lammers, 2016; Lammers & Baldwin, 2018), the internal meta-analysis complements this previous evidence for the effect. Although these studies together provide substantial support that framing ideas as a return to the past boosts conservative support for political issues, a clear limitation of this research line is that so far, the underlying psychological process is largely unexplored. In terms of process, Lammers and Baldwin (2018) report two studies that show that trait and state differences in nostalgia mediate the effect, meaning that the effect is driven by conservatives' longing for the past. However, the scope of theoretical explanation offered by this is still superficial, as it merely shows that conservatives respond more positively to past-focused framing because they have positive thoughts about the past (as this is a core aspect of nostalgia; Wildschut et al., 2006). Moreover, as shown in the previous chapter, nostalgia does not always mediate the effect, which questions its explanatory power. The goal of the current research is to offer a deeper theoretical explanation, testing what exactly conservatives appreciate about the past and what drives their responsiveness to past-focused framing. To do so, I draw on the approach of political conservatism as motivated social cognition (Jost et al., 2003a, see also Chapter 1.2.1) and test its proposed underlying motives in the context of a framing approach. I argue that conservatives' attachment to past-focused ideas stems from their construal of the past, in a way that they see a realization of their epistemic and existential motives in it. Previous research has shown that conservatism is only related to positive feelings for the past if the past is depicted as a time that was in line with specific conservative values (Lammers & Baldwin, 2020; Smeekes et al., 2021). This suggests that there are certain limitations to conservatives' preference for past-focused political action, such as the extent to which the depicted past actually fulfills underlying motives of conservatism. The current project therefore connects the temporal

framing effect to the literature about political conservatism and investigates epistemic and existential motives as potential drivers of the effect. Chapter 3 is based on the following manuscript:

Schulte, A., & Lammers, J. (2023). *The cognitive-motivational roots of conservatives' desire for the past*. Revised manuscript submitted to *Social Cognition*.

Please note that some changes in citation style and formatting were undertaken to keep the layout of this dissertation consistent. No changes were made to the content of the article.

Abstract

As a political ideology, conservatism is primarily focused on maintaining and restoring past society. This aspect is so central that conservatives' support for policies is increased simply by framing them as a return to the past. Until now, the underlying process of this temporal framing effect is unclear. Drawing on theories of conservatism as motivated social cognition, four preregistered studies ($N_{\text{total}} = 2,405$) test the hypothesis that it results from conservatives' epistemic and existential beliefs about the past. Studies 1 and 2 demonstrate that conservatives' preference for past-focused political communication is blocked if the past is perceived to be inconsistent with these beliefs. Studies 3 and 4 (a representative UK sample replication) find that the effect is mediated by epistemic and existential beliefs about the past. This research theoretically integrates the earlier-established conservative temporal framing effect in the wider literature of conservatism as motivated social cognition.

Keywords: political psychology, conservatism, motivated social cognition, framing, communication

3.1 Introduction

America is at an inflection point — one of those moments that determine the shape of everything that's to come after. And now America must choose: to move forward or to move backwards? To build the future or obsess about the past? (Biden, 2022)

These words from US president Joe Biden's speech from Independence Hall in Philadelphia last year illustrate one of the core differences in the political landscape in Western democracies: a difference in temporal orientation. As a political ideology, liberalism is focused on attaining progress to create a better future. In contrast, political conservatism seeks to largely maintain society as it is, resist more dramatic change if possible, and sometimes even return to elements of past society (Ball & Bellamy, 2003; McClelland, 2005). Conservatives see their heritage and traditions as a source of stability and an inspiration for good governance – and therefore want to protect and maintain it (Huntington, 1957; Kirk, 1953; Muller, 1997).

3.1.1 The Role of the Past in Conservative Thinking

A large literature in political psychology shows that this link between conservatism and a focus on the past is not limited to political philosophy. Instead, this difference in temporal focus emerges in many aspects of political action and communication and is also shared by many ordinary citizens. Conservatives generally prefer to maintain the current system and resist radical societal changes (Jost et al., 2003a, 2007, 2009). Reflecting conservatives' focus on the past, posts on conservative news websites referenced the past more often and the future less often, compared to liberal websites (Robinson et al., 2015). Conservative politicians use slogans that point back in time, such as Republican President Donald Trump's call to "Make America Great Again". Conservatives also stick more to conventional traditions than do liberals (G. D. Wilson, 1973). In fact, there is even causal evidence that experiencing thoughts of the past can increase conservative thinking (Lammers & Proulx, 2013).

Past-Focused Framing

A recent line of research has taken these insights even further and shown that the appeal of the past is so strong that conservatives come to embrace liberal policies, such as pro-environmentalism or wealth redistribution, when these policies are merely *framed* as a return to the past, rather than a move forward to a new future (Baldwin & Lammers, 2016; Lammers & Baldwin, 2018). For example, self-identified conservatives were more supportive of pro-environmental action if this was presented as an attempt to restore a greener past, rather than to ensure a greener future – even if no other information was presented (Baldwin & Lammers, 2016; but see Kim et al., 2021; Stanley et al., 2021). Lammers and Baldwin (2018) applied the same temporal framing paradigm to a range of other political topics, such as advocating gun control, migrant rights, and criminal justice. A more recent set of studies applied the same idea to the COVID-19 pandemic and found that conservatives responded more positively to imagery of people wearing masks during the 1918 influenza pandemic than of similar, but futuristic imagery (Schulte et al., 2023). This line of research fits with other findings showing that people, in particular with conservative attitudes, like political ideas more if they are framed as a positive aspect of history (Stefaniak et al., 2022; Stefaniak, Wohl, & Bilewicz, 2021).

Although these series of studies provide substantial support that framing ideas as a return to the past boosts conservative support for political issues, a clear limitation of this literature is that the underlying psychological process is largely unexplored. The goal of the current research is to offer a theoretical explanation and test what conservatives appreciate about the past and why this drives their responsiveness to past-focused framing.

3.1.2 Conservatism as Motivated Social Cognition

We base our theoretical predictions on Jost and colleagues' theory of political conservatism as motivated social cognition (Jost et al., 2003a) which explains political conservative ideology with two core motives: the epistemic motive to avoid uncertainty and the existential motive to manage or reduce psychological threats. The model holds that although

these basic motives are shared by all people, the two are stronger among conservatives than among liberals. An extensive line of research confirms the basic idea of this model (Hennes et al., 2012; Jost et al., 2003a, 2004; Jost, Nosek, et al., 2008; Jost, 2017; Jost & Amodio, 2012; Kay & Eibach, 2012). Building on this, the central theoretical prediction in the current work is that conservatives' responsiveness to past-focused temporal framing also stems from these two underlying psychological motives. In other words, we propose that conservatives intuitively have more positive attitudes toward ideas that are framed as a return to the past (vs. toward the future) because the past has attributes that help satisfy these epistemic and existential motives. In the following, we provide a brief summary of these two motives and illustrate potential epistemic and existential functions of the past.

Epistemic Motives and Attributes of the Past

An extensive line of research shows that compared to liberals, political conservatives tend to show stronger epistemic needs for predictability (Adorno et al., 1950; Jost et al., 2003a; Jost & Amodio, 2012), higher intolerance of ambiguity and uncertainty, and higher needs for order, structure and cognitive closure (Caprara & Zimbardo, 2004; Jost, 2017). Compared to liberals, conservatives prefer tradition over progress, order over chaos, stability over flexibility, and traditional values over equality movements (Jost, Nosek, et al., 2008). This is also reflected in their lack of openness to experience or change (Jost et al., 2007). In sum, conservatives tend to be less tolerant of uncertainty and generally possess stronger epistemic motives than liberals (for meta-analytical overviews, see Jost, 2017; Jost et al., 2003a; see also Costello et al., 2023).

There are many reasons to expect that the past has attributes that fit with these epistemic motives. The past is by definition simpler and more certain and predictable than the present (Morris, 1986). It offers psychological stability in the form of tradition, customs, established procedures, and habits. These aspects structure our expectations of interactions and social exchange and allow people to predict social reality, thus satisfying epistemic motives (Ouellette & Wood, 1998). Therefore, we propose that conservatives prefer political action that

is framed as a return to the past because it fits with their epistemic motives. This prediction is further bolstered by the fact that people believe (in part correct, in part due to biases) that society is accelerating due to scientific, technological, social, and informational developments that speed up life (Zherebin et al., 2015). As a result, the past is perceived as a simpler time than the present, as it did not involve the fast and complex interactions of today (J. L. Wilson, 2014). This suggests that the past fits with a desire to satisfy epistemic motives – especially when faced with the fast and unpredictable society of the present. Consistent with this reasoning, findings show that past-related thoughts can provide a sense of stability and permanence (Han & Newman, 2022). Taken together, these findings suggest that one reason why conservatives value past-focused temporal frames is that the past provides a sense of epistemic certainty, stability, and understandability.

Existential Motives and Attributes of the Past

Focusing on existential motives, research shows that a conservative ideology may also result in part from the desire to minimize psychological threat (Jost et al., 2004; Jost, Nosek, et al., 2008; Jost et al., 2017). One prevalent existential motive associated with conservatives, compared to liberals, is death anxiety and fear of threat or loss (Jost et al., 2003a, 2007). Conservatism is also related to stronger perceptions of a dangerous world (Jost et al., 2007) and a higher sensitivity to mortality salience (Jost et al., 2017). Moreover, it has been demonstrated that threatening environments or situations, such as terror attacks, lead to higher popularity of conservative political candidates, parties, and policies (Bonanno & Jost, 2006; Nail & McGregor, 2009). Overall, compared to liberals, conservatives have a greater fear of mortality and meaninglessness. One way to cope with such existential anxieties is aligning with a meaningful social identity and adopting belief systems and social structures that provide a sense of persistence and meaning. Perceiving life as meaningful helps managing threats (Mikulincer et al., 2002; Plusnin et al., 2018; Shaver & Mikulincer, 2012), and social connectedness is essential to achieve this because it provides a sense of belonging to a larger

community with shared values and norms (Baumeister, 2005; Lambert et al., 2013). Belonging to a group with established beliefs helps individuals feel more secure and protected in the face of existential concerns. This existential function of social connectedness may be especially strong for conservatives, because conservatives prioritize loyalty to their social group and respect for its unity and shared identity more strongly on average, than do liberals (Graham et al., 2009; Haidt & Graham, 2007). In addition, conservatives on average score higher on social motives to protect the larger community and to ensure its safety, which may further add to the importance of connectedness, in particular among conservatives (Janoff-Bulman et al., 2008). Together, these findings suggest that social cohesion and belonging are especially meaningful among conservatives. This is in line with the finding that conservatives show a stronger motivation to achieve and maintain a ‘shared reality’ with others to perpetuate feelings of safety and social reassurance (Hardin & Conley, 2001; Hardin & Higgins, 1996; Jost, Ledgerwood, et al., 2008).

We argue that reflecting on the past helps manage existential concerns among conservatives by providing such a ‘shared reality’. Recent research has shown that nostalgic thinking about the past increases feelings of social connectedness (Wildschut et al., 2006) and in-group belonging (Smeekes et al., 2018). Given that a reaffirmation of meaning does not necessarily need to be related to the source of the threat (Heine et al., 2006; Proulx & Heine, 2006), we propose that thinking about aspects from the past can generally help conservatives to regain a sense of meaning. In line with this idea, conservatives report gaining meaning in life from past-related sources such as religious traditions, while liberals report gaining meaning in life from new experiences (Silver & Van Kessel, 2021). Taken together, these findings suggest that another reason why conservatives value past-focused temporal frames is that the past helps them manage existential threat by providing a sense of connectedness, belonging, and meaning.

3.1.3 Summary and Overview of Studies

Four preregistered studies test the idea that conservatives' positive responses to past-focused temporal framing of political ideas (compared to those of liberals) can be traced back to differences in epistemic and existential motives. In other words, we challenge the idea that conservatives unconditionally prefer past-focused communication and hypothesize that their past-focus-preference only occurs if the past fits with their motives but not when the past is instead depicted as a time that violates epistemic or existential motives. We test this idea in Studies 1 and 2 using an experimental approach. We manipulate the degree to which the past fulfills conservative motives and predict that conservatives only respond more positively to past-focus (over future-focus) framed political ideas if the targeted past is perceived to be consistent with the epistemic motivation to reduce uncertainty (Study 1) and the existential motivation to manage threat through belongingness (Study 2). Our central assumptions thus relate to the relative preference of past-focused over future-focused frames. Studies 3 and 4 rely on a mediation approach. We measure whether epistemic and existential beliefs about the past mediate the effect of participants' ideology (conservative vs. liberal) on their preference for past-focus (vs. future-focus) framed political action. To account for differences in other ideologically relevant beliefs about the past, we also partial these out. To be able to generalize these findings to different nations, we test this using a US (Study 3) and a representative UK (Study 4) sample.

Methodological Notes

The studies were approved by the Ethics Committee at the authors' university. All four studies were preregistered, and all preregistrations included the study design, planned sample size, exclusion criteria, and planned analyses. Links are provided per study. We report all planned analyses and note where we deviate from the preregistered analyses. We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the studies. Materials, data, analysis scripts, and a codebook for interpretation of the data

files are available on the Open Science Framework (OSF; https://osf.io/txp26/?view_only=01b0bb1427354882b24b7dfcb6168c15).

3.2 Study 1 – Epistemic Motives

3.2.1 Participants and Design

In return for \$0.60, 601 American online participants were approached via CloudResearch.com. Consistent with established procedures and recommendations, we relied in this and all subsequent studies on the mechanisms offered by that service to restrict participants in order to obtain high-quality data (Chandler et al., 2019; Hauser et al., 2022; Litman et al., 2017). Participants were randomly assigned to one of four experimental conditions of a 2 (temporal frame: past vs. future; between) \times 2 (consistency with epistemic motives: consistent vs. inconsistent; between), quasi-experimental design with political ideology (from liberal to conservative) measured as a third independent variable. We used G*Power (Faul et al., 2007) to set sample size to detect a small to medium effect size ($f=.175$) with 90% power, and rounded up the calculated sample size ($N = 576$) to account for any data exclusion. Following our preregistration, 11 participants were excluded a priori because of self-reported inattention⁵, resulting in a final sample of $N = 590$ (45.4% female, 54.2% male, 0.3% other, $M_{age} = 39.9$ years, $SD_{age} = 11.9$, 77.1% White, 7.8% Black, 8.1% Asian, 5.1% Hispanic or Latino, 1.9% other). The study is preregistered at: https://aspredicted.org/WVT_ZMR.

3.2.2 Materials and Procedure

Participants indicated their political ideology using two 7-point Likert items (Lammers & Baldwin, 2018), between *Very liberal* (1) and *Very conservative* (7) and between *Strongly prefer Democrats* (1) and *Strongly prefer Republicans* (7), which correlated strongly ($r = .88$, $p < .001$) and were combined into an index of participants' political ideology. Next, participants

⁵ In all studies, we asked participants to indicate whether we should exclude their data from our analyses (e.g., because they did not pay attention to the study) and excluded them as preregistered. In the experimental studies, the number of exclusions was equally distributed across conditions. The exclusions had no effect on the significances of results in any of the studies.

read a statement from a fictional politician. Across conditions, the statement was identical, except for the temporal frame manipulation that we adapted from Benoit's (2001) bridge metaphor. Specifically, depending on the temporal frame condition, the target politician either talked about their desire to build a bridge to the past or instead their desire to build a bridge to the future. Orthogonally and depending on epistemic motives condition, this alternative desirable time (i.e., the past or future) that they sought to bridge society toward, was either touted for its stability compared to the present (consistent with epistemic motives; Jost, Nosek, et al., 2008) or with its greater flexibility compared to the present (inconsistent with epistemic motives). Verbatim stimuli texts are provided on OSF.

Participants indicated their endorsement of the statement and the politician who made it using four 7-point Likert-scale items, taken from Lammers and Baldwin (2018, $\alpha = .94$, example item: "How much do you agree with the politician?") between *Not at all* (1) and *Very much* (7).

As a manipulation check, six items measured how participants perceived the past or future in epistemic terms ($\alpha = .89$; example item: "The past was chaotic"). Items were framed depending on temporal frame condition. Finally, participants completed nine items taken from the short Need for Closure Scale (order, predictability, and ambiguity subscales, $\alpha = .91$; Roets & Van Hiel, 2011) for exploratory purposes.⁶ These items are not discussed further.

3.2.3 Results and Discussion

We tested the effects of political ideology, temporal frame, and epistemic consistency on endorsement of the statement by first including the main effects, then adding the two-way interactions, and finally by testing the three-way interaction. See Table 3.1 for the complete regression results of all models. In line with previous research (Lammers & Baldwin, 2018), we found a significant interaction of ideology and temporal frame, $b = 0.45$, $SE = 0.07$,

⁶ The results of our main analyses do not change after adding the subscales of need for closure as a covariate, and it did not mediate any of the effects.

$t(583) = 6.65, p < .001, 95\% \text{ CI}_b [0.32, 0.58]$, indicating that conservatives preferred a past-focused over a future-focused frame. This interaction was weaker but still significant when we added the three-way interaction to the model, $b = 0.22, SE = 0.10, t(582) = 2.28, p = .023, 95\% \text{ CI}_b [0.03, 0.41]$. Consistent with our predictions, the three-way interaction of ideology, temporal frame, and epistemic consistency was also significant, $b = 0.43, SE = 0.13, t(582) = 3.22, p = .001, 95\% \text{ CI}_b [0.17, 0.70]$. This suggests that conservatives preferred the past-focused over the future-focused frame, but only if the past was presented as being consistent with epistemic motives. See Figure 3.1.

To interpret this three-way interaction in more detail, we conducted two-way interaction tests within each of the two epistemic-motive consistency conditions. As predicted, in the epistemic-consistent condition, the ideology \times temporal frame interaction was significant, $b = 0.66, SE = 0.09, t(289) = 7.26, p < .001, 95\% \text{ CI}_b [0.48, 0.84]$, showing a significant preference of a past-focused over a future-focused frame for conservatives (replicating earlier work; Lammers & Baldwin, 2018) when the desired state was consistent with epistemic motives. An analysis of the regions of significance after Johnson and Neyman (1936) revealed that the preference for a past-focused over a future-focused frame was significant ($p < .05$, two-sided) for conservatives (at 5.29, $z = 1.13$ or above on the political ideology scale) in the epistemic-consistent condition, but not for moderates and liberals (below that value).

In contrast, in the epistemic-inconsistent condition, this interaction was also still significant but strongly reduced in size, $b = 0.22, SE = 0.10, t(293) = 2.23, p = .027, 95\% \text{ CI}_b [0.03, 0.42]$. Reflecting this reduced effects size, a similar Johnson-Neyman (1936) analysis in the epistemic-inconsistent condition showed that the difference between past-focused and future-focused frame was no longer significant ($p > .05$, two-sided) for conservatives⁷.

⁷ An alternative explanation for the strongly reduced interaction of ideology and condition in the inconsistent condition might be higher confusion about the epistemically inconsistent statement. Confusion should lead to smaller differences between temporal conditions (which is what we find, in accordance with our hypothesis), but also to greater variance within the cells in the inconsistent condition (compared to the corresponding cell in the consistent condition). We therefore tested if the variance in the inconsistent conditions

In summary, these findings support the prediction that conservatives do not unconditionally prefer past-focused temporal frames, but only do so if the past fulfills epistemic functions. If the past does not appeal to core conservative epistemic motives, the appeal it has on conservatives is largely lost.

Additional Analyses

Although our primary focus is on explaining conservatives' attraction to the past, we also found that liberals significantly preferred the future-focused over the past-focused frame. Earlier work did not find systematic evidence for this (Lammers & Baldwin, 2018). However, this liberal future-preference was unrelated to the manipulated consistency with epistemic motives, as it was significant for liberals in both the epistemic-consistent (at 4.02, $z = 0.41$ or below on the political ideology scale) and epistemic-inconsistent (at 3.35, $z = 0.03$ or below) conditions. Simple slope analyses revealed that political ideology was only significantly related to endorsement when the statement was past-focused ($b = 0.37, p < .001$), but not when it was future-focused ($b = -0.09, p = .079$). This suggests that the observed liberal preference for future-focused over past-focused political action is rooted in liberals' opposition to political action that aims to return to the past, and not in a desire for future-focused action.

Also, unexpectedly, the manipulation check did not show the predicted difference between conditions, $t(587.8) = -0.33, p = .740$. One possible reason for this is that participants were asked how they *personally* perceived the past (or the future), rather than how the target politician depicted it. Since we never anticipated to change participants' fundamental perceptions of the past or the future, this manipulation check did not actually check our manipulation (i.e., if the politician aims to reach a state of stability vs. flexibility in the past vs. future). In Study 2, we changed the manipulation check items correspondingly.

was significantly higher than the variance in the consistent conditions. Results revealed that the variance in the past-inconsistent condition was not higher than the variance in the past-consistent condition ($p = .979$). The same pattern was found for the comparison of variances between the future-consistent and the future-inconsistent condition ($p = .391$). Therefore, it seems unlikely that differences between the consistent and the inconsistent condition were due to confusion of the participants. We thank handling Editor Dr. Neel for sharing this concern.

Table 3.1*Study 1: Regression results using endorsement of the statement as the criterion*

		<i>b</i>	<i>SE</i>	95% CI		<i>p</i>
				LL	UL	
Model 1	(Intercept)	3.33	0.11	3.12	3.54	< .001
	Conservatism	0.15	0.04	0.08	0.22	< .001
	TF	-0.59	0.13	-0.84	-0.35	< .001
	EC	0.72	0.13	0.48	0.97	< .001
Model 2	(Intercept)	3.21	0.12	2.97	3.44	< .001
	Conservatism	-.21	0.06	-0.33	-0.09	< .001
	TF	-0.36	0.17	-0.69	-0.03	.035
	EC	0.96	0.17	0.63	1.30	< .001
	Conservatism × TF	0.45	0.07	0.32	0.58	< .001
	Conservatism × EC	0.24	0.07	0.11	0.37	< .001
	TF × EC	-0.48	0.24	-0.95	-0.01	.048
Model 3	(Intercept)	3.21	0.12	2.98	3.44	< .001
	Conservatism	-0.09	0.07	-0.23	0.04	.174
	TF	-0.35	0.17	-0.68	-0.02	.037
	EC	0.95	0.17	0.62	1.29	< .001
	Conservatism × TF	0.22	0.10	0.03	0.42	.023
	Conservatism × EC	0.02	0.10	-0.17	0.21	.851
	TF × EC	-0.48	0.24	-0.94	-0.01	.046
	Conservatism × TF × EC	0.43	0.14	0.17	0.70	.001

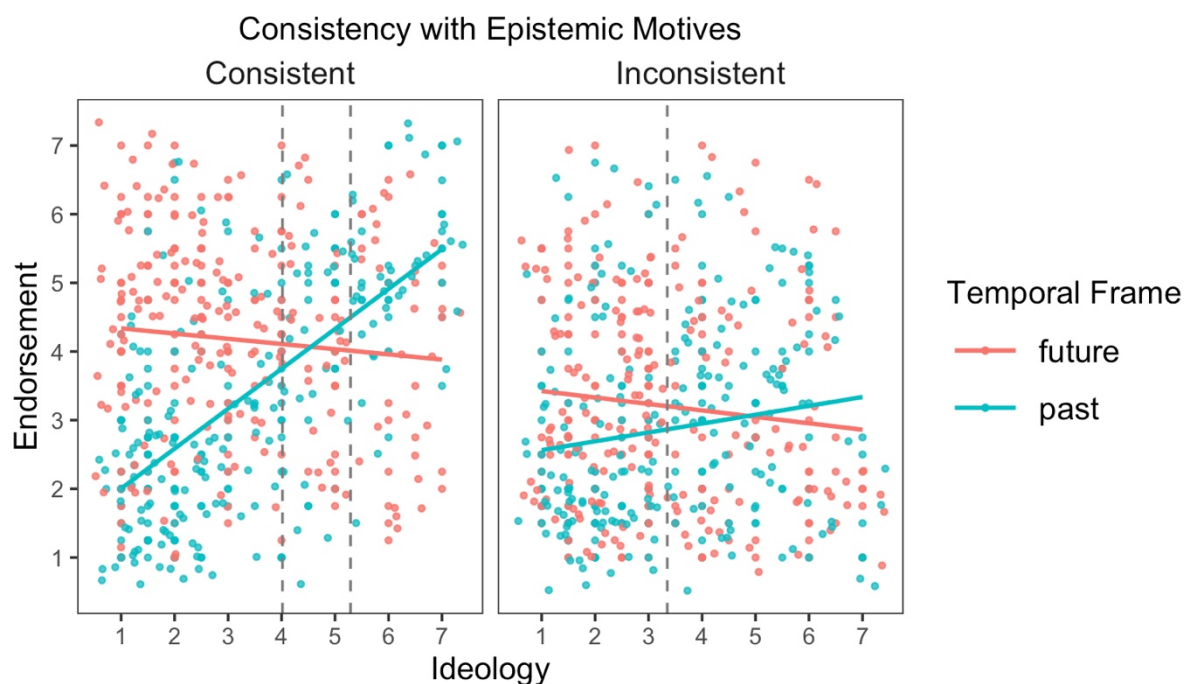
Note. TF = Temporal Frame (1 = past, 0 = future), EC = Epistemic Consistency (1 = consistent,

0 = inconsistent). *B* represents unstandardized regression weights. Model 1: adjusted $R^2 =$

0.104. Model 2: adjusted $R^2 = 0.187$. Model 3: adjusted $R^2 = 0.200$.

Figure 3.1

Three-way interaction between political ideology, temporal frame, and epistemic consistency



Note. The dashed vertical line indicates the Johnson-Neyman significance region; differences between temporal frame are significant at $p < .05$, except between the two dashed lines in the epistemic-consistent condition, and to the right of the dashed line in the epistemic-inconsistent condition. Data are jittered to avoid over-plotting.

3.3 Study 2 – Existential Motives

Study 1 found that conservatives' preference for past-focused over future-focused political action depends on the degree to which the past is consistent with epistemic motives associated with conservatism. Using a similar design, Study 2 tests whether conservatives' preference for past-focused over future-focused political action also depends on the degree to which the past fulfills *existential* motives similarly associated with conservatism. We argue that the past (and past-related thoughts) usually helps conservatives manage existential threat by providing a sense of connectedness and belonging. However, if those meaning-providing aspects of the past are explicitly absent (i.e., if we remove them from conservatives'

conceptualization of the past), their preference of past-focused over future-focused political action should dissolve. We therefore vary the presence of social connectedness (vs. disconnectedness) in the past.

3.3.1 Participants and Design

In return for \$0.60, 603 American online participants were approached via CloudResearch.com and were randomly assigned to one of four experimental conditions of a 2 (temporal frame: past vs. future; between) \times 2 (consistency with existential motives: consistent vs. inconsistent; between), quasi-experimental design with political ideology measured as a third independent variable. We used G*Power (Faul et al., 2007) to set sample size to detect a small to medium effect size ($f=.175$) with 90% power, and rounded up the calculated sample size ($N = 576$) to account for any necessary data exclusion. Following our preregistration, 16 participants were excluded a priori because of self-reported inattention, resulting in a final sample of $N = 587$ (47.0% female, 52.1% male, 0.9% other, $M_{\text{age}} = 41.2$ years, $SD_{\text{age}} = 12.5$, 76.3% White, 9.0% Black, 7.7% Asian, 4.3% Hispanic or Latino, 2.7% other). This study is preregistered at: https://aspredicted.org/DP5_2NR.

3.3.2 Materials and Procedure

The procedure was similar to Study 1. We used the same two item-index of political ideology ($r = .88, p < .001$) and the same four items ($\alpha = .95$) to measure participants' endorsement of the fictional target politicians, which again used Benoit's (2001) bridge metaphor. Differently, we now manipulated the degree to which the alternative that the politicians sought was consistent with existential motives (i.e., providing higher meaning through greater social connectedness) or inconsistent with existential motives (i.e., not providing higher meaning due to greater social disconnectedness; see materials section on OSF). Participants additionally completed a manipulation check which consisted of four items ($\alpha = .96$), asking for the state the politician aims to reach (example item: "According to the politician, people should be more connected to each other"). For exploratory purposes, we also

measured participants' need to belong using the ten-item Need to Belong Scale ($\alpha = .87$; Leary et al., 2013).⁸ These items are not discussed further.

3.3.3 Results and Discussion

As expected, the target politician in the existential-consistent condition was seen as striving to greater social connectedness ($M = 5.86$, $SD = 1.10$) than the politician in the existential-inconsistent condition ($M = 2.02$, $SD = 1.28$), $t(572.75) = 38.93$, $p < .001$, suggesting that the manipulation worked as intended.

We used the same analytic strategy as in Study 1 to test our main predictions. See Table 3.2 for the complete regression results of the effects of political ideology, temporal frame, and existential consistency on endorsement of the statement. In line with previous research, we found a significant interaction of ideology and temporal frame, $b = 0.29$, $SE = 0.07$, $t(580) = 4.29$, $p < .001$, 95% CI_b [0.16, 0.42], indicating that conservatives preferred a past-focused over future-focused frame. However, this interaction was no longer significant when we added the three-way interaction to the model, $b = 0.07$, $SE = 0.09$, $t(579) = 0.82$, $p = .412$, 95% CI_b [-0.10, 0.25]. Consistent with our predictions, we found a significant three-way interaction of ideology, temporal frame, and existential consistency, $b = 0.46$, $SE = 0.13$, $t(579) = 3.42$, $p < .001$, 95% CI_b [0.19, 0.72], suggesting that conservatives' preference for a past-focused over a future-focused frame depends on existential consistency. See Figure 3.2.

As in Study 1, we interpreted this interaction by testing the two-way interaction effect between ideology and frame within the two existential consistency conditions. As expected, if the past was depicted as a time that is consistent with existential motives, conservatives preferred the past-focused statement over the future-focused statement (replicating earlier work; Lammers & Baldwin, 2018), $b = 0.53$, $SE = 0.10$, $t(289) = 5.45$, $p < .001$, 95% CI_b [0.34, 0.72]. Analyzing the regions of significance after Johnson and Neyman (1936), we found that

⁸ The results of our main analyses do not change after adding need to belong as a covariate, and it did not mediate any of the effects.

conservatives (at 5.72, $z = 1.25$ or above on the political ideology scale) preferred the past-focused frame over the future-focused frame, whereas moderates and liberals (at 4.01, $z = 0.30$ or below on the political ideology scale) had the opposite preference.

In contrast, in the existential-inconsistent condition, the two-way interaction between ideology and temporal frame was not significant, $b = 0.07$, $SE = 0.09$, $t(290) = 0.82$, $p = .412$, 95% CI_b [-0.10, 0.25], indicating no ideology-specific differences between the temporal frames. Consistent with results of Study 2, if the targeted past does not satisfy conservative existential motives, conservatives' preference of past-focused over future-focused communication is lost.

We also found a significant interaction of conservatism and existential consistency, $b = -0.59$, $SE = 0.09$, $t(579) = -6.31$, $p < .001$, 95% CI_b [-0.77, -0.41], suggesting that conservatives generally preferred the existentially inconsistent statement over the consistent statement. Although not explicitly anticipated, this finding is in line with our theorizing: We hypothesized that the relative preference for a past-focused frame (over a future-focused frame) will be blocked if the past does not provide existential meaning through social connectedness anymore. We return to this aspect in the General Discussion.

Table 3.2*Study 2: Regression results using endorsement of the statement as the criterion*

		<i>b</i>	<i>SE</i>	95% CI		<i>p</i>
				LL	UL	
Model 1	(Intercept)	3.66	0.11	3.45	3.88	< .001
	Conservatism	0.33	0.03	0.26	0.40	< .001
	TF	-0.41	0.13	-0.66	-0.17	.001
	EC	0.89	0.13	0.64	1.14	< .001
Model 2	(Intercept)	3.51	0.12	3.28	3.75	< .001
	Conservatism	0.36	0.06	0.26	0.47	< .001
	TF	-0.14	0.17	-0.48	0.19	.409
	EC	1.13	0.17	0.79	1.46	< .001
	Conservatism × TF	0.29	0.07	0.16	0.42	< .001
	Conservatism × EC	-0.37	0.07	-0.50	-0.23	< .001
	TF × EC	-0.51	0.24	-0.98	-0.03	.036
Model 3	(Intercept)	3.52	0.12	3.28	3.75	< .001
	Conservatism	0.46	0.06	0.34	0.58	< .001
	TF	-0.14	0.17	-0.47	0.20	.425
	EC	1.10	0.17	0.77	1.43	< .001
	Conservatism × TF	0.08	0.09	-0.10	0.25	.412
	Conservatism × EC	-0.59	0.09	-0.77	-0.41	< .001
	TF × EC	-0.51	0.24	-0.98	-0.04	.034
	Conservatism × TF × EC	0.46	0.13	0.19	0.72	< .001

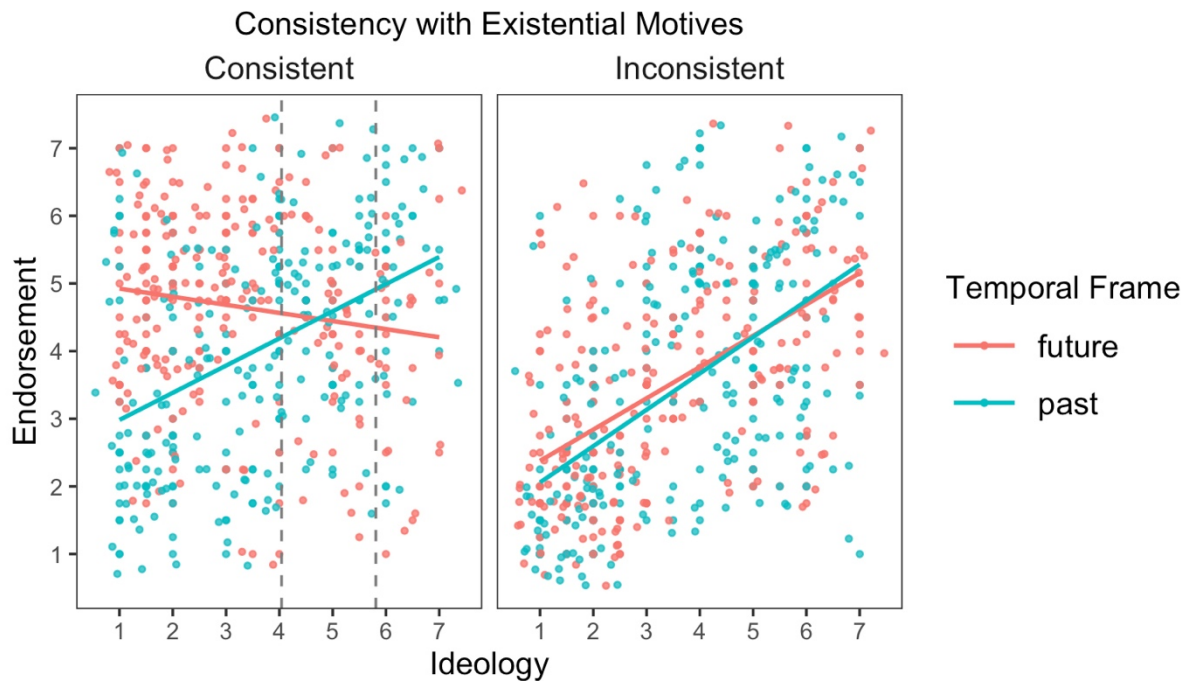
Note. TF = Temporal Frame (1 = past, 0 = future), EC = Existential Consistency (1 =

consistent, 0 = inconsistent). *B* represents unstandardized regression weights. Model 1:

adjusted $R^2 = 0.196$. Model 2: adjusted $R^2 = 0.259$. Model 3: adjusted $R^2 = 0.272$.

Figure 3.2

Three-way interaction between political ideology, temporal frame, and existential consistency



Note. The dashed vertical line indicates the Johnson-Neyman significance region; differences between temporal frame are significant at $p < .05$, except between the two dashed lines in the existential-consistent condition. Data are jittered to avoid over-plotting.

3.4 Study 3 – Existential and Epistemic Beliefs as Mediators

Studies 1 and 2 found that conservatives only prefer past-focused over future-focused political action if the past fits their epistemic and existential motives. However, as recent research has shown (e.g., Baldwin & Lammers, 2016; Lammers & Baldwin, 2018, 2020), conservatives by default show a preference for past-focused political action (if no information on epistemic or existential consistency is given). This suggests that by default conservatives expect that the past fits with epistemic and existential motives. Therefore, Study 3 investigates conservatives' actual perception of the past using a mediation approach: We expect that the link between conservative ideology and a relative preference for past- over future-focused frames is mediated by beliefs about the past that are related to these epistemic and existential motives.

Using a multiple mediation design, this allows integrating both hypothesized motivational beliefs in one study. In addition, we also tested whether the indirect effects remain after controlling for past-related beliefs that include other preferences of conservative ideology (in the following: ideological beliefs) as a third mediating factor. This can help rule out possible confounds with other ideological preferences (e.g., people may perceive and prefer a more structured past because they prefer the social system of the past).

3.4.1 Participants and Design

In return for \$1.00, 702 American online participants were approached via CloudResearch.com and participated in this research. The temporal frame of a target politician (past vs. future-focused) was manipulated within participants. To determine the sample size, we conducted a Monte Carlo power analysis simulation following Schoemann and colleagues (2017), to have at least 80% power to detect the smallest indirect effect ($\beta = .02$) found in a pilot study ($N = 395$). Following our preregistration, 64 participants were excluded a priori because they did not follow the instructions. An additional 10 participants were excluded because of self-reported inattention. This resulted in a final sample of $N = 628$ (48.3% women, 51.1% men, 0.6% other, $M_{\text{age}} = 40.8$ years, $SD_{\text{age}} = 27.4$, 73.7% White, 8.6% Black, 9.1% Asian, 6.1% Hispanic or Latino, 2.6% other). The study is preregistered at: https://aspredicted.org/P9S_LQY.

3.4.2 Materials and Procedure

After measuring participants' political ideology using the same two items as in Studies 1 and 2 ($r = .87, p < .001$), we measured epistemic, existential, and conservative ideological beliefs about the past. Twelve items measured beliefs about the past that were related to epistemic motives ($\alpha = .94$, example item: "Life in the past was more certain"), another twelve measured beliefs that were related to existential motives ($\alpha = .94$, "In the past, life had a clearer sense of purpose"), and a final twelve measured beliefs that were related to conservative ideological preferences ($\alpha = .90$, "In general, past society was fair."). Note that in our

preregistration we also used a finer distinction, differentiating each of the three sets of beliefs into three further subcomponents, resulting in nine mediators. Given the high intercorrelations within each of these three sets (all α s > .90) and to be consistent with Studies 1 and 2, we focus here only on the difference between epistemic, existential, and ideological beliefs⁹. Analyses using the nine mediators are available in the additional analyses section on OSF.

As in Studies 1 and 2, we then measured participants' preference for a past- versus future-focused temporal frame, by presenting them with two fictitious politicians (randomized order) who expressed their intentions behind their political agenda. We again used Benoit's (2001) bridge metaphor, to manipulate whether the target expressed a desire to move back to the past or forward to the future (see materials section on OSF). Participants indicated their endorsement of each politician using the same four items as in Studies 1 and 2 ($\alpha_{\text{past frame}} = .94$, $\alpha_{\text{future frame}} = .93$). For exploratory purposes, we additionally asked participants which time they had in mind when they thought about the past, how vivid their recollection of the past was, and how they would describe the past they thought of.¹⁰ These items are not discussed further.

3.4.3 Results

As expected, compared to liberals, conservatives had more positive attitudes toward the past-framed politician ($r = .53$, $p < .001$), and less positive attitudes toward the future-framed politician ($r = -.53$, $p < .001$). To test the predicted mediation, we then created a difference-score of these two, with higher numbers indicating more positive relative attitudes toward the past-focus framed target politician (from here Past-Focus-Preference: PFP). Political ideology positively predicted this PFP, $b = 0.32$, $SE = 0.02$, $t(626) = 20.22$, $p < .0001$, 95% CI_b [0.29, 0.35].

⁹ A Confirmatory Factor Analysis (CFA) testing the appropriateness of the three-factor model showed acceptable fit according to all indices, $\chi^2(24) = 113.00$, RMSEA = .077, RMSEA 95% CI = [.063, .091], SRMR = .028, CFI = .974. The three-factors model was a significantly better fit than a single factor model.

¹⁰ Consistent with our predictions, we found that conservatives have a more vivid imagination of the past, which mediates the relation between ideology and PFP. This finding was also replicated in Study 4. Since effects concerning vividness are not the focus of the current manuscript, we decided to leave out these analyses.

Next, we tested whether motivationally relevant beliefs about the past mediate this relation using Model 4 of the PROCESS macro for R with 5,000 Bootstrap samples (Hayes, 2013). Focusing on the a-paths of the mediation model, compared to liberals, conservatives had stronger epistemic, $b = 0.24$, $SE = 0.02$, $t(626) = 9.92$, $p < .0001$, 95% CI_b [0.19, 0.29], stronger existential, $b = 0.28$, $SE = 0.03$, $t(626) = 11.34$, $p < .0001$, 95% CI_b [0.23, 0.33], and stronger conservative ideological beliefs about the past, $b = 0.29$, $SE = 0.02$, $t(626) = 13.47$, $p < .0001$, 95% CI_b [0.24, 0.33].

Consistent with our predictions, we found that these differences mediated conservatives' preference for past-focused over future-focused political action. Including first only epistemic and existential motives, we found indirect effects through epistemic, $b = 0.03$, $SE = 0.01$, 95% CI_b [0.01, 0.04], as well as through existential beliefs about the past, $b = 0.06$, $SE = 0.01$, 95% CI_b [0.04, 0.08].

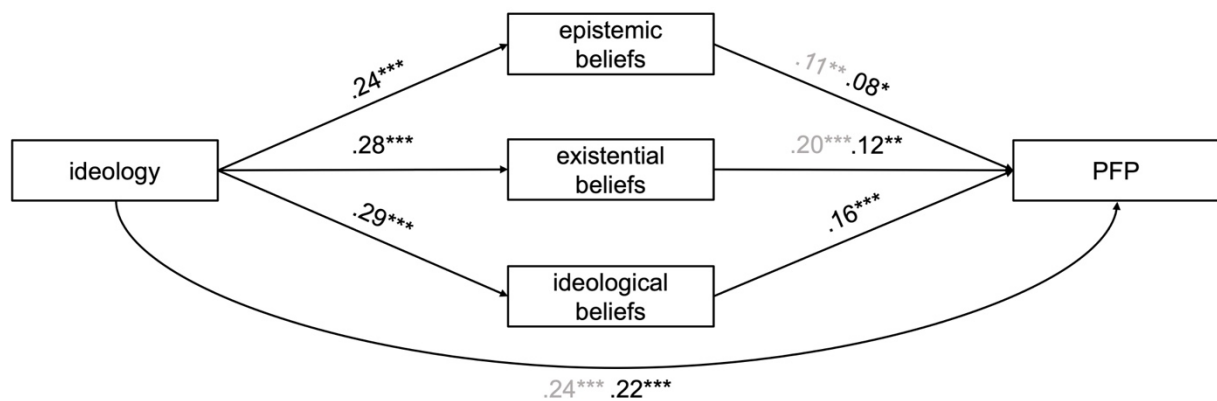
Next, we tested whether this effect remains after controlling for conservative ideological beliefs about the past. Although we found a significant indirect effect through ideological beliefs about the past, $b = 0.05$, $SE = 0.01$, 95% CI_b [0.02, 0.07], the indirect effects through epistemic, $b = 0.02$, $SE = 0.01$, 95% CI_b [0.002, 0.04], and existential beliefs about the past, $b = 0.04$, $SE = 0.01$, 95% CI_b [0.01, 0.06], both remained significant. These results indicate that that variance is partly but not fully explained by ideological beliefs about the past, or, in other words, that the predictive value of epistemic and existential beliefs goes beyond ideological motivations. See Figure 3.3.

We used a within-participants design for greater power, but to test whether the usual limitations associated with a within-participants design qualify these results, we additionally conducted all analyses controlling for presentation order. This showed the same pattern of results. Moreover, to further investigate if the indirect effects of conservatives' (vs. liberals') preference for the past through the past-related beliefs are independent from presentation time, we additionally conducted separate analyses including only participants who saw the past-

focused politician first. By doing so, we minimized the risk of demand effects, because participants did not know that a future-focused politician will follow. The results were again in line with our predictions. The detailed analyses can be found in the additional analyses section on OSF. Together, these results indicate that the findings from Study 3 are not qualified by constraints associated with within-participants designs. Similar arguments are proposed by Lammers and Uğurlar (2023) who also used a similar within-participants approach with similar materials.

Figure 3.3

Multiple mediation of political ideology on past-focus-preference (PFP)



Note. Grey values indicate regression weights of the model without ideological beliefs included. *** $p < .001$, ** $p < .01$, * $p < .05$.

3.5 Study 4 – Replication in the UK Using a Representative Sample

Results of Study 3 found that conservatives' preference for the past is due to differences in epistemic and existential beliefs about the past, even when controlling for differences in ideological beliefs. A limitation to all three studies presented until now, is that they were all conducted in the US and using convenience samples. To address these concerns, Study 4 used a representative sample drawn in the UK.

3.5.1 Participants and Design

In return for £1.20, a representative sample of 651 Prolific users from the United Kingdom participated in this study. The sample was set to be representative in terms of sex, age, and ethnicity, based on UK census data. The design was identical to Study 3. The required sample size was estimated using a Monte Carlo power analysis simulation (Schoemann et al., 2017), based on the effect sizes found in Study 3 which suggested that $N = 630$ provides 80% power to detect the smallest indirect effect ($\beta = .038$), which we rounded up to account for any data exclusion. Consistent with our preregistration, 37 participants were excluded because of self-reported inattention. This resulted in a final sample of $N = 614$ (51.8% women, 47.7% men, 0.5% other, $M_{\text{age}} = 44.7$ years, $SD_{\text{age}} = 15.6$, 82.9% White, 3.9% Black, 8.6% Asian, 4.6% other). The study is preregistered at: https://aspredicted.org/4VC_TKF.

3.5.2 Materials and Procedure

Participants indicated their political ideology using the same two items as in the previous studies ($r = .80, p < .001$) which were adapted to the political environment of the UK, between *Very Left Wing* (1) and *Very Right Wing* (7), and between *Strongly prefer Labour* (1) and *Strongly prefer Conservatives* (7)¹¹. Again, participants completed the same 36 items measuring epistemic ($\alpha = .89$), existential ($\alpha = .90$), and ideological beliefs ($\alpha = .84$) about the past and indicated their endorsement of each target politician ($\alpha_{\text{past frame}} = .91, \alpha_{\text{future frame}} = .90$). For exploratory purposes, participants indicated the date, vividness, and description of the past they had in mind. These items are not discussed further.

3.5.3 Results and Discussion

Consistent with Studies 1 to 3, conservatives had a more positive attitude toward the past-framed ($r = .35, p < .001$), and a less positive attitude toward the future-framed politician, compared to liberals, ($r = -.13, p = .002$). We again created a difference score of Past-Focus-

¹¹ Since the multi-party system in the UK differs from the two-party system in the US, participants were asked “Imagine that you would only be able to choose between Labour and the Conservative party, which would you prefer?”

Preference (PFP) and found that conservatism positively predicted PFP, $b = 0.21$, $SE = 0.03$, $t(612) = 7.69$, $p < .0001$, 95% CI_b [0.16, 0.27].

We then used Model 4 of the PROCESS macro for R with 5,000 Bootstrap samples (Hayes, 2013), to test whether differences in motivational beliefs mediated conservatives' stronger PFP. Focusing on the a-path, conservatism was related to stronger epistemic beliefs, $b = 0.16$, $SE = 0.02$, $t(612) = 7.27$, $p < .0001$, 95% CI_b [0.12, 0.21], stronger existential beliefs, $b = 0.21$, $SE = 0.02$, $t(612) = 8.63$, $p < .0001$, 95% CI_b [0.16, 0.26] and stronger conservative ideological beliefs about the past, $b = 0.18$, $SE = 0.02$, $t(612) = 8.06$, $p < .0001$, 95% CI_b [0.13, 0.22].

Including first only epistemic and existential motives as mediators, we replicated the mediation pattern found in Study 3 and established indirect effects through epistemic, $b = 0.03$, $SE = 0.01$, 95% CI_b [0.01, 0.05], and through existential beliefs about the past, $b = 0.10$, $SE = 0.02$, 95% CI_b [0.07, 0.13].

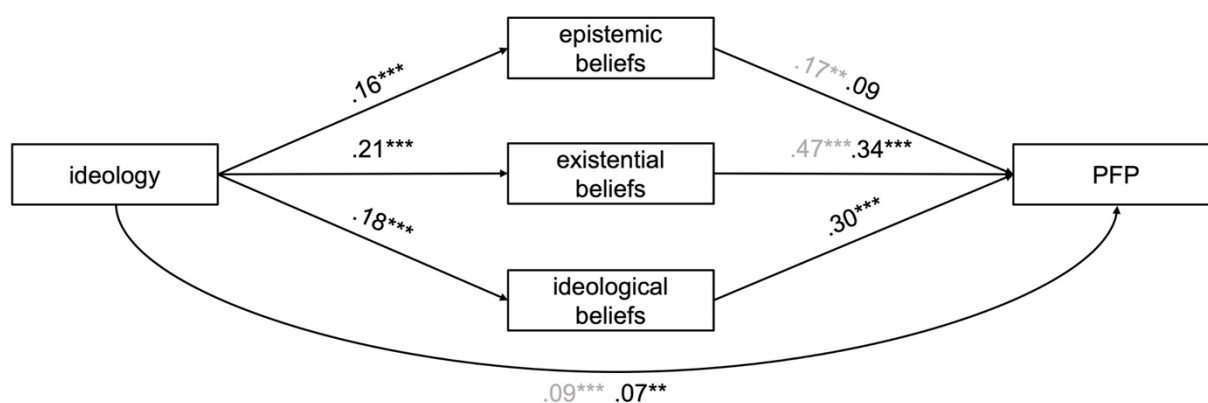
As in Study 3, we next added ideological beliefs about the past as a third mediator. When controlling for the indirect effect through ideological beliefs about the past, $b = 0.05$, $SE = 0.01$, 95% CI_b [0.03, 0.08], we found that the indirect effect through existential beliefs about the past remained significant, $b = 0.07$, $SE = 0.01$, 95% CI_b [0.05, 0.10], but the indirect effect through epistemic beliefs was no longer significant, $b = 0.02$, $SE = 0.01$, 95% CI_b [-0.003, 0.04]. See Figure 3.4. As in Study 3, we reanalyzed the data controlling for presentation order and including only participants who saw the past-focused politician first. This again revealed similar result patterns (see the additional analyses section on OSF).

Comparing these results from the UK with those from the US (Study 3), we find that the total effect of political ideology on PFP was larger in the US. The relation between conservatism and epistemic, existential, and ideological beliefs about the past was also stronger in the US. However, while the indirect effect through existential beliefs about the past was larger in the UK than in the US, the indirect effect through epistemic beliefs was non-

significant in the UK. This indicates that in the UK, the variance of epistemic beliefs about the past may be to a certain extent explained by ideological beliefs, meaning that these two factors are not independent from each other. Taken together, this cross-national comparison suggests that different, nation-specific factors may influence the strength of relations between political ideology, beliefs about the past, and preference for past-focused political action.

Figure 3.4

Multiple mediation of political ideology on past-focus-preference (PFP)



Note. Grey values indicate regression weights of the model without ideological beliefs included. *** $p < .001$, ** $p < .01$, * $p < .05$.

3.6 General Discussion

Earlier work shows that conservatives have more positive attitudes toward policies that are framed as a return to the past (over policies framed toward a new future). The aim of the present work was to investigate why this is the case. To do so, we relied on the model of conservatism as motivated social cognition, which explains conservatism as driven by epistemic and existential motives (Jost et al., 2003a). Across four studies, we found evidence for our hypothesis that conservatives' preference for past-focused political action is contingent on the degree to which the targeted past fulfills these epistemic and existential motives. Studies 1 and 2 demonstrated this contingency by manipulating the temporal frame (past vs. future)

and the consistency with epistemic (Study 1) and with existential motives (Study 2) of political messages. Both studies showed that conservatives prefer political action that is framed as a return to the past over political action that is framed as a move toward a new future. But importantly, in both studies we found a strong framing effect when the described past appeals to epistemic and existential motives but a weaker or no effect when the past does not appeal to these motives. Studies 3 and 4 demonstrated the same contingency, but instead used a mediation design. Epistemic and existential beliefs about the past mediate the relation between political conservatism and preference for past-focused political action, both in the USA (Study 3) and in a representative sample from the UK (Study 4; although the mediation through epistemic beliefs was less reliable here – we discuss this below).

3.6.1 Connections to Past Research

Our findings integrate earlier isolated findings that conservatives respond more positively to ideas that are framed as a return to the past (Baldwin & Lammers, 2016; Lammers & Baldwin, 2018, 2020) to the broader theory of conservatism as motivated social cognition (Jost et al., 2003a; Jost, 2017). In doing so, our work contributes to a more nuanced portrayal of conservatism by taking a differentiated view on the interplay of motives and preferences that are usually ascribed to conservatism (Proulx & Brandt, 2017). This research can also be connected to a third literature identifying nostalgia, a sentimental longing for the past, as a threat response (Juhl et al., 2010; Routledge et al., 2008, 2011, 2012, 2016; Wildschut et al., 2006). Specifically, based on our research one could assume that nostalgia is a threat response that is particularly attractive to political conservatives because the past – a time that is seen as more predictable, simpler, and offering greater connectedness and meaning – is an ideal repository for the epistemic and existential needs that are most likely threatened among conservatives. This also connects to a fourth line of research which shows that, at the collective level, a nostalgic longing for the past is often seen as a driving force behind xenophobia and support for far-right political parties, especially among those who deal with the uncertainty and

lack of belongingness associated with a globalizing world (Smeekes, 2019; Smeekes et al., 2021). Indeed, our findings suggest that these movements are likely a reaction to violated epistemic and existential needs.

Our findings also contribute to the longtime and still ongoing discussion on whether it is conservatism (Jost et al., 2003b) or ideological extremism (Greenberg & Jonas, 2003) that is related to motives to reduce threat and uncertainty (see Kosloff et al., 2016 for a theoretical review). Indeed, our findings fit well in the uncertainty-threat model of political conservatism as we found that conservatives were more strongly affected by epistemic and existential frames of political messages and had stronger epistemic and existential beliefs about the past than liberals (Jost et al., 2003a, 2003b, 2007). At the same time, our studies do not rule out the possibility that liberals are motivated to satisfy epistemic or existential motives. For example, consistent with the idea that individual differences are generally linked to different sources of meaning (Landau et al., 2010), it is possible that where conservatives look for meaning in past-related sources, such as tradition and religion, liberals gain meaning from other experiences.

3.6.2 Future Directions

Our studies also do not rule out the possibility that liberals value other specific aspects of the past. It must be noted that we build our rationale for conservatives' preference for past-focused communication on the theory of conservatism as motivated cognition (Jost et al., 2003a), thereby focusing on motives that have been associated more strongly with conservatism (compared to liberalism) in past research. However, recent research suggests that both liberals and conservatives can long for society of the past, but that the content of this past is different (Stefaniak, Wohl, Sedikides, et al., 2021). Even though previous work (e.g., Lammers & Baldwin, 2018) as well as our studies suggest that only conservatives are responsive to past-focused temporal framing, future research could test if explicitly highlighting *liberal* attributes of the past can also increase their endorsement for past-focused political ideas.

Furthermore, our studies do not investigate the potential role of the messenger's party affiliation. It is possible that the politicians in Studies 3 and 4 might be presumed to be conservative or liberal based on their (past-focused vs. future-focused) messages. In line with this notion, previous research showed that a past-focused message by a politician labeled as conservative caused more conservative perceptions of that politician (Herberz et al., 2023). However, this work also showed that temporal framing and partisanship independently increased conservatives' support for a message. Therefore, although temporal framing can affect the messenger's perceived partisanship, and although the messenger's partisanship plays a role in participants' endorsement of a statement, it does not affect the temporal framing effect. This independence was already suggested by earlier research which showed that liberals' support for political goals was not reduced by a (presumably more conservative) past-focused message (Baldwin & Lammers, 2016). However, in addition to the temporal manipulation in the current studies, we activated participants' epistemic beliefs about the past prior to presenting the politicians. Because recent research showed that manipulating the epistemic focus of a political message only effectively increases conservatives' support when they perceive the messenger as being conservative (Lammers et al., 2023), future research could address this by adding explicit messenger partisanship labeling.

We based our theorizing regarding existential aspects on the notion that conservatives value the past for its meaning-providing function by stressing feelings of social connectedness (Plusnin et al., 2018). In line with this, Study 2 demonstrates that disconnecting social connectedness from the past also attenuates conservatives' preference for a past-focused frame over a future-focused frame. Additionally, disconnecting it increased (absolute, not relative) endorsement among conservatives, since our conceptualization of social disconnectedness included higher individualism. Possibly, this is due to the fact that some conservatives often prioritize a "rugged" form of individualism that stems from their preference for economic independence and limited government intervention (e.g., Crowson, 2009). This preference may

have been even more salient here because our studies were conducted in 2021, a time in which especially conservatives called for individual independence, rejecting and protesting obligatory COVID-19 protective health measures (e.g., Clinton et al., 2021; Connaughten, 2021; Gollwitzer et al., 2020). Therefore, although the existentially inconsistent message includes an explicit absence of meaning-providing social connectedness, it may still fit with other conservative preferences. This can be considered as additional evidence for our presumption that conservatives value the past for its epistemically and existentially relevant attributes. Future research could test this in more detail by additionally manipulating the presence (vs. absence) of epistemically and existentially related (vs. unrelated) attributes in the past. This could also increase generalizability to different aspects from the past since our approach only provides one aspect of each motive.

3.6.3 Applied Implications

The effectiveness of past-focused frames in political statements is highly relevant for real-world political communication, as those references to the past are often used by populist right-wing parties and politicians who try to evoke a nostalgic longing for a cherished time to communicate their political ideas (Menke & Wulf, 2021). Although our findings provide new evidence for conservatives' preference for past-focused political action, they also show that communicating political ideas with a past-focused frame may not always convince conservatives. Thus, the effectiveness of past-focused communication seems to be limited. In line with this, we find that only the combination of temporal frame and motivational consistency (and not only the manipulation of one of them, as indicated by the two-way interactions with ideology) leads to a past-focus-preference, as indicated by the significant three-way interactions (see Tables 3.1 and 3.2). If politicians, for instance, use a past frame to talk about political goals that are aimed at an uncertain or unpredictable state, this may be an ineffective way to increase conservatives' support. Overall, our findings highlight the

importance of matching communication style with people's different motives in advertising political ideas.

3.6.4 Strengths and Limitations

Our last study shows that the indirect effect via epistemic beliefs was less reliable in a UK sample, especially when controlling for the indirect effect via ideological beliefs about the past, than in a US sample. This suggests that in the UK the variance of epistemic beliefs about the past may be to a certain extent explained by ideological beliefs, meaning that these two factors are less independent from each other than in the USA. Future work may want to test if this finding is robust across non-US samples.

Another potential limitation of our findings is that all studies used paid participants. Nonetheless, the quality of such convenience samples has been demonstrated to approach that of more expensive representative samples (Chandler et al., 2019; Hauser et al., 2022; Litman et al., 2017) and in particular to be a valid way to test differences between conservatives and liberals that is more representative than student samples (Berinsky et al., 2012; Clifford et al., 2015). Additionally, a strength is that Study 4 employed a representative sample recruited in a different country.

A limitation of the practical relevance of our findings is that the political messages used in the studies were not related to concrete political goals. The fictitious political candidates stated their plans for political action in general, but they did not mention any specific topics. We did so to isolate the "pure" effects of a temporal frame, unaffected by any potential confounds associated with specific content. But of course, this limits the real-world implications. We do note, however, that temporal framing effects have already been demonstrated for various specific political topics (Baldwin & Lammers, 2016; Lammers & Baldwin, 2018). For this reason, we here favored experimental control over applied implications.

3.6.5 Conclusion

The current project connects the temporal framing effect to the literature about political conservatism and investigates social-cognitive motives as potential drivers of the effect. Two correlational and two experimental studies showed that conservatives' preference for past-focused political action depends on how the past fits with underlying epistemic and existential motives. Our work thus helps understand the deeper psychological factors that contribute to conservatives' attachment to the past.

Chapter 4: Does Framing Climate Change Policies to Fit with Epistemic Needs for Predictability Reduce Conservatives' Opposition?

The findings reported in Chapter 3 suggest that conservatives' preference for the past and for past-focused political communication is grounded in their construal of the past in terms of epistemic and existential motives. Study 1 suggests that solely appealing to these motives is not sufficient to increase conservatives' support, as they did not show a higher preference for a future-focused statement that fulfills those motives. However, additionally manipulating the temporal focus may have increased other, unintended associations and does not allow a clean, individual test of both factors (i.e., epistemic/existential framing and temporal framing). Therefore, the current chapter tests the effectiveness of framing political ideas (here: pro-environmental policies) to fit with epistemic needs for predictability and closure in reducing conservatives' opposition, without manipulating the temporal focus. In doing so, this research helps understand if the past and past-focused framing have some additional appeal to conservatives that goes above and beyond the fulfillment of epistemic motives. Chapter 4 is based on the following publication:

Lammers, J., Schulte, A., & Baldwin, M. (in press). Does framing climate change policies to fit with epistemic needs for predictability reduce conservatives' opposition? *Analyses of Social Issues and Public Policy*. <https://doi.org/10.1111/asap.12362>

Please note that some changes in citation style and formatting were undertaken to keep the layout of this dissertation consistent. No changes were made to the content of the article.

Abstract

A short-term obstacle to united political action to fight climate change in various countries is opposition to pro-environmental policies among conservatives. Three preregistered studies test the hypothesis that because conservatives have a higher need for closure than liberals (Hypothesis 1), framing pro-environmental policies in a way that appeals to the need for closure reduces conservatives' opposition to these policies (Hypothesis 2). Study 1 confirms Hypothesis 1. Next, two studies test Hypothesis 2 and find that conservatives are less opposed to pro-environmental policies proposed by a politician (Study 2) or an NGO (Study 3) if these policies are framed in a way that appeals to the need for closure, while the opposite is the case for liberals. Across these two studies, we also test the underlying process but find no evidence for the idea that differences in need for closure mediate the effect (Hypothesis 3a). Instead, the effect is primarily driven by inferences about group membership and ingroup bias (Hypothesis 3b, non-preregistered). That is, these data suggest that framing policies to appeal to closure needs reduces conservatives' opposition because they infer that the policy is proposed by a fellow conservative.

Keywords: climate change, conservatism, framing, ingroup bias

4.1 Introduction

Climate change poses an urgent, catastrophic, and potentially irreversible threat to human civilization. Overwhelming scientific evidence shows that climate change is a man-made process that will continue to worsen unless radical action is taken on a global level (Intergovernmental Panel on Climate Change, 2021). One of the most salient barriers to formulating such global action is political opposition among conservatives. For example, although more than 9 out of 10 American Democrats accept the scientific consensus on climate change and support pro-environmental action, only half of their conservative compatriots share these feelings (Krosnick & MacInnis, 2020; Wolff, 2021). Conservative lack of concern with climate change is not limited to American conservatives but extends to many countries in the European Union and across the globe (McCright et al., 2016; Tranter, 2011). Therefore, it is important to understand what shapes this conservative opposition to pro-environmental action and whether there are ways to overcome it.

4.1.1 Closure and Conservatism

The current work tests the idea that one way to overcome conservative opposition to climate action is to frame the need for such pro-environmental action in terms of satisfying closure needs. This prediction draws on earlier findings that show that reframing pro-environmental action can help convince conservatives if the alternative frame appeals to conservative values, concerns, and needs (Cohen et al., 2000; Lakoff, 2010; Lindenberg & Steg, 2013; Nisbet et al., 2012). For example, framing pro-environmental action or other liberal policies in ways that connect to moral concerns that are stronger among conservatives, increases conservatives' attitudes toward pro-environmentalism (Feinberg & Willer, 2013, 2019; Hurst & Stern, 2020; Wolsko et al., 2016). Framing pro-environmental action in ways that connect to conservative political values can also have similar effects (Campbell & Kay, 2014; Feygina et al., 2010). Finally, appealing to conservative nostalgic desires for the past can

also increase their support for pro-environmentalism (Baldwin & Lammers, 2016, but see Kim et al., 2021).

Here we propose that framing pro-environmental action in terms of gaining closure may have a similar positive effect on conservatives' support. Closure refers to the need to get an answer to questions and to avoid ambiguity and uncertainty (Kruglanski, 1990; Webster & Kruglanski, 1994). Various theories and empirical findings support the idea that conservatives score higher on personality measures associated with closure than do liberals (Chirumbolo, 2002; Jost & Amodio, 2012; Jost et al., 2003a, 2007; Onraet et al., 2013; Tomkins, 1963; Van Hiel et al., 2004; Wilson, 1973). Conservatives have stronger explicit and implicit preferences for order, tradition, stability, and other sources of certainty than do liberals (Jost et al., 2007, 2008; Sidanius, 1978). Conservatives also adhere more tenaciously than liberals to established procedures and habits (Fay & Frese, 2000; Gillies & Campbell, 1985; McAllister & Anderson, 1991). This desire for predictability and closure may reflect a tendency among conservatives to be more easily aroused by threats. Compared to liberals, conservatives show, for example, a stronger physiological response to negative stimuli (Hibbing et al., 2014) and fixate more quickly on negative images (Dodd et al., 2012). Conservatives also tend to perceive the world as a more threatening place and spend more time worrying about possible threats (Federico et al., 2009; Hennes et al., 2012; Jost et al., 2007; Jugert & Duckitt, 2009; Van Hiel et al., 2007; Van Leeuwen & Park, 2009). This leads us to formulate our first two hypotheses:

Hypothesis 1: Conservatives score higher on Need for Closure than do liberals.

Hypothesis 2: Framing pro-environmental action in a manner that appeals to Need for Closure increases pro-environmental attitudes among conservatives, but not among liberals.

4.1.2 Psychological Process: Two Explanations

In addition to testing the effectiveness of this framing manipulation, we also aim to test the psychological process underlying this effect. Here we distinguish between two explanations, which we test separately as Hypotheses 3a and 3b. The explanation we initially favored when designing this research (and preregistered), is that the effect of political ideology on relative support for pro-environmental action that is framed in a manner that appeals to closure needs (compared to action that is framed differently) is mediated by dispositional differences in the Need for Closure. Theoretically, closure and other correlates of ideology can be treated as predictors of ideology and political parties, meaning that they can be used to predict preference for one political movement over the other. But closure and other correlates can also be treated as mechanisms that can help explain and isolate the deeper reasons why conservatives and liberals differ in their opinions and judgments. Specifically, if conservatives experience stronger chronic closure needs than liberals and this is why they prefer a closure frame over alternative frames, then interindividual differences in closure needs should mediate the effect of ideology. Stated differently, although conservatives have on average stronger closure needs than liberals, they differ in this, meaning that some conservatives have particularly strong closure needs and others only moderately so. If the framing manipulation appeals to closure needs, then these differences in closure should better explain reactions to the framing manipulation than mere ideology and, therefore, adding closure as a variable should reduce the direct effect of ideology.

Analogous to this fit explanation, earlier work shows, for example, that ideological difference between how conservatives and liberals view gays can be explained by differences in cognitive style between these ideological groups. Therefore, adding cognitive style as a mediator reduces the direct effect of ideological differences on the endorsement of stereotypes about gays (Stern et al., 2013; Study 3). Here, we predict that closure mediates the effect of ideology on the degree to which participants' responses are affected by a framing

manipulation. Analogous to this approach, earlier work shows that dispositional disgust sensitivity mediates the effect of ideology on support for pro-environmental action that is framed in purity terms (compared to alternative terms; Feinberg & Willer, 2013, Study 3). As another example, dispositional differences in collective nostalgia mediate the extent to which conservatives support pro-environmental action when framed as a restoration of the past (compared to when framed as creating a new future; Lammers & Baldwin, 2018, Study 6; see also Lammers & Uğurlar, 2023). Similarly, we propose here that conservatives' needs for closure mediate their relative support for pro-environmental action, depending on how it is framed (Roets & Van Hiel, 2011). This leads us to formulate our third hypothesis:

Hypothesis 3a: Differences in the Need for Closure mediate the effect of participants' political ideology on their support for pro-environmental action framed in terms of providing closure (compared to their support when using alternative frames).

But across Studies 2 and 3 we also consider an alternative (exploratory, non-preregistered) process explanation. Various findings show that the effect of how a pro-environmental message is framed on attitudes toward the message can depend on whether the source of that message is perceived to be authored by a conservative (Hurst & Stern, 2020; Wolsko et al., 2016). In this case, framing a message to be consistent with conservative values increases support among conservatives, because they expect that they are supporting an ingroup member. In Studies 2 and 3, we therefore also test this non-preregistered alternative explanation. To highlight its non-preregistered nature, we refer to it as Hypothesis 3b:

Hypothesis 3b (non-preregistered): Differences in the perceived political identity of the politician or the NGO moderate the effect of participants' political ideology on their support for pro-environmental action framed in terms of providing closure (compared to their support when using alternative frames).

4.1.3 Overview of Studies

In summary, we hypothesize that conservatives have stronger closure needs than liberals (Hypothesis 1), and that therefore appealing to these needs by framing pro-environmental action in a manner that fits with these needs is effective in increasing conservative support for climate change policies (Hypothesis 2). In addition, we test the underlying process and consider two hypotheses. Hypothesis 3a is that dispositional differences in Need for Closure mediate the effect of a conservative ideology on relative support for pro-environmental action that is framed as providing closure (compared to other frames, cf. Lammers & Baldwin, 2018; Study 6), but non-preregistered competing Hypothesis 3b is that differences in the perceived identity instead moderate the effect of ideology (cf. Wolsko et al., 2016). We conducted three preregistered studies to test these hypotheses¹². Study 1 tests Hypothesis 1. Studies 2 and 3 test all four hypotheses.

4.1.4 Sampling

Given the particular link between conservatism and resistance to climate change action in the United States (Dunlap & McCright, 2011), we conducted these three studies with American participants, recruited via CloudResearch Prime Panels, which offer more diverse samples in terms of age, family composition, religiosity, education, and political attitudes than many other commonly used online services, such as MTurk (Chandler et al., 2019). We note that this offers high-quality data that mimics the results of more expensive representative samples (Berinsky et al., 2012; Buhrmester et al., 2011) and is a valid recruitment tool for research on political ideology (Clifford et al., 2015). To ensure quality of data, we ensure a fair compensation that exceeds minimum wage (Litman et al., 2017) and offer participants the opportunity to delete their responses while retaining full compensation.

¹² All three studies were preregistered, and sample size was set a priori. We report all measures, conditions, data exclusions, and how we determined sample size. The preregistrations, anonymized data, and syntax files studies are available at: <https://researchbox.org/1602>.

4.2 Study 1 – Conservatism and Need for Closure

We first test Hypothesis 1 by measuring whether political conservatism is associated with higher closure needs¹³.

4.2.1 Participants and Design

We recruited 500 American participants who took part in return for \$1.00 for a study that took at most 5 min (thus compensating at least \$12.00 / hour). We set sample size a priori to $N = 500$. Eleven participants recommended that we delete their responses because they lacked energy to respond with care and we did so although this did not meaningfully affect results. This left 490 valid responses¹⁴ (50.2% male, 49.4% female, .4% other; mean age 40.0 years, 76.1% White, 6.1% Black, 12.2% Asian, 5.5% mixed/other). Of all participants, 52.7% ($n = 258$) self-identified as liberal, 19.4% ($n = 95$) as neutral, and 28% ($n = 137$) as conservative. This sample size provides more than 99% power to detect a small-to-medium-sized correlation ($\rho = .2$) and 72% power to detect a small correlation ($\rho = .1$).

4.2.2 Procedure and Measures

This study was conducted as part of a larger study measuring personality correlates of political ideology. As part of this study, participants indicated their *political orientation* on two seven-point Likert items (taken from Lammers & Baldwin, 2018), between *Very liberal* (1) and *Very conservative* (7), and between *Strongly prefer Democrats* (1) and *Strongly prefer Republicans* (7), with in each case a *Neutral* option (4) in-between. Items correlated well, $r = .896$, $p < .0001$, and were combined into one index with higher values representing a more conservative political identity ($M = 3.38$, $SD = 1.76$).

Next, participants completed the *Need for Closure Scale* (Roets & Van Hiel, 2011). All 15 items were completed in randomized order, between *Strongly disagree* (1) and *Strongly*

¹³ This study was conducted to test a different hypothesis (related to COVID-19).

¹⁴ The final sample size of 490 was erroneously reported in the published paper. Please note that the correct sample size is $N = 489$.

agree (7). The 15 items attained high internal reliability, $\alpha = .907$, and were combined into one Need for Closure index ($M = 4.68$, $SD = .97$). This 15-item scale also contains five subscales, which also showed sufficient internal reliability ($\alpha_{\text{predictability}} = .827$, $\alpha_{\text{order}} = .900$, $\alpha_{\text{decisiveness}} = .715$, $\alpha_{\text{aversion-of-ambiguity}} = .747$, $\alpha_{\text{closed-mindedness}} = .577$).

4.2.3 Results

Consistent with Hypothesis 1 and earlier literature we discussed, we found a small-sized positive effect of conservative ideology on the Need for Closure, $b = .076$, $SE = .025$, $t(487) = 3.05$, $p = .002$, $R^2 = .019$; 95% CI_b [.027, .125], meaning that conservatives have higher closure needs than do liberals. For exploratory purposes, we also tested the link between ideology and closure for each of the five subscales. Descriptively, the relation was the strongest for closed-mindedness, $b = .137$, $SE = .030$, $t(487) = 4.52$, $p < .0001$, $R^2 = .040$; 95% CI_b [.078, .197], and need for predictability, $b = .088$, $SE = .033$, $t(487) = 2.66$, $p = .008$, $R^2 = .014$; 95% CI_b [.023, .0153], weaker but significant for aversion of ambiguity, $b = .062$, $SE = .031$, $t(487) = 2.02$, $p = .044$, $R^2 = .008$; 95% CI_b [.002, .123], and weakest and non-significant for need for decisiveness, $b = .050$, $SE = .030$, $t(487) = 1.69$, $p = .091$, $R^2 = .006$; 95% CI_b [-.008, .109], and need for order, $b = .041$, $SE = .031$, $t(487) = 1.34$, $p = .182$, $R^2 = .004$; 95% CI_b [-.019, .101].

4.3 Study 2 – Unpredictability Framing and Evaluation of Politicians

We now test all hypotheses by conducting a study in which we manipulate how a pro-environmental policy is framed and measure how it is evaluated.

4.3.1 Participants and Design

We recruited 500 American participants who took part in return for \$1.00 for a study that took at most 5min (thus compensating at least \$12.00 / hour). Sample size was based on the consideration of having at least 90% power to replicate the earlier found correlation ($N = 456$, rounded up to 500). Two participants requested that their data be deleted from the analysis because of inattentiveness, leaving 498 valid responses (56.4% men, 43.4% women, .2% other;

mean age 40.2 years; 79.9% White, 9.4% Black, 5.0% Asian, 5.6% mixed/other). Of all participants, 55.4% ($n = 276$) self-identified as liberal, 16.1% ($n = 80$) as neutral, and 28.5% ($n = 142$) as conservative. Given that framing (closure vs. consequences) was manipulated within-participants, the cell size is identical.

4.3.2 Procedure

After completing the same two-item measure of political orientation ($r = .878$, $p < .0001$; $M = 3.37$; $SD = 1.89$) and the same fifteen-item Need for Closure Scale ($\alpha = .895$, $M = 4.72$; $SD = .97$) as used in Study 1, participants were simultaneously presented with two statements from two fictional politicians about their goals related to climate change (counterbalanced order). Depending on frame (closure-frame shown; consequence-frame between parentheses), the statements read:

I think we should try to avoid the long-term uncertainty (consequences) that climate change brings. When thinking of our nation's future, I dislike the unpredictability (consequences) associated with climate change. My goal is to make sure we know what to expect (we avoid these consequences).

4.3.3 Measures

Next, we measured *relative attitude* for both politicians, by asking participants to indicate on four seven-point Likert items ($\alpha = .981$) which of the two politicians they agreed more with, liked better, preferred, and would be more likely to support, with the two politicians as scale anchors. We coded these in one index, where higher values indicate a more positive relative attitude of the politician who framed pro-environmental action in closure terms (i.e., as an attempt to reduce uncertainty). On average, participants had more positive attitudes of the consequence-frame politician, $M = -1.00$; $SD = 1.68$; $t_{\text{difference-from-mid-point}}(498) = -13.37$, $p < .001$; 95% $CI_{\Delta} [-1.15, -.86]$. After finishing these items, participants also guessed the political identity of each of the two politicians, between *Very likely Democrat* (1), *Neutral* (4), and *Very likely Republican* (7).

4.3.4 Results

Hypothesis 1

Inconsistent with the results of Study 1, a conservative political ideology did not predict Need for Closure, $b = .017$, $SE = .023$, $p = .452$, 95% CI_b [-.028, .063], $R^2 = .001$. We return to this issue in the General Discussion.

Hypothesis 2

Using a linear regression to test the effect of participants' ideology, presentation order, and their interaction on relative attitude of the closure-frame (vs. consequence-frame) politician, we found the predicted positive main effect of ideology, $b = .390$, $SE = .048$, $p < .0001$, 95% CI_b [.297, .484], meaning that conservatives had a more positive (less negative) attitude of the politician who framed pro-environmental action in closure terms, relative to the politician who instead focused on consequences. Although we did find a main effect of presentation order, $b = .394$, $SE = .136$, $p = .004$, 95% CI_b [.128, .661], meaning that participants evaluated the politician presented last more positively (a recency effect), the interaction between ideology and presentation order was not significant $b = -.009$, $SE = .72$, $p = .903$, 95% CI_b [-.150, .132]. See Table 4.1.

Table 4.1

Study 2: Linear regression analysis with relative attitude toward the closure- versus consequences-frame politician (difference score) as outcome variable

Predictors	Hypothesis 2			Hypothesis 3a			Hypothesis 3b		
	<i>b</i>	95% CI _b	<i>p</i>	<i>b</i>	95% CI _b	<i>p</i>	<i>b</i>	95% CI _b	<i>p</i>
(Intercept)	-1.18	-1.35, -1.00	< .001	-2.13	-2.79, -1.47	< .001	-1.07	-1.22, -.92	< .001
Ideology	.39	.30, .48	< .001	.39	.30, .48	< .001	.34	.26, .42	< .001
Order	.39	.13, .66	.004	.40	.14, .67	.003	.41	.18, .64	< .001
Ideology * Order	-.01	-.14, .13	.903	-.15	-.16, .13	.835	.02	-.11, .14	.798
NFC				.20	.07, .34	.004			
Perceived Identity							-.20	-.26, -.15	< .001
Ideology * Perceived Identity							.16	.14, .19	< .001
<i>R</i> ²		.201			.213			.414	

Note. Hypothesis 2 shows the effect of ideology (controlling for order and their interaction). Hypothesis 3a tests the mediating effect of Need for Closure. Hypothesis 3b tests the moderating effect of perceived political identity of the targets.

Hypothesis 3a

Given the lack of support for Hypothesis 1, meaning a non-significant a-path in the mediation model, Hypothesis 3a was unlikely to be confirmed. Indeed, using the PROCESS macro (Model 4, 5000 bootstrap samples), we found that differences in the Need for Closure did not significantly mediate the effect of participants' ideology on relative support for the politician who used the closure-frame, $b_{\text{indirect}} = .003$, $SE = .005$, 95% CI_b [-.006; .014],¹⁵ even though Need for Closure did predict relative support for the closure-frame politician (b-path), $b = .197$, $SE = .069$, $p = .005$, 95% CI_b [.061; .333]. As Table 4.1 shows, adding NFC as a second predictor does not reduce the main effect of ideology (established above, Hypothesis 2).

Hypothesis 3b (non-preregistered)

Participants expected the consequences-frame politician to be more likely a Democrat ($M = 2.62$, $SD = 1.32$) than the closure-frame politician ($M = 4.24$, $SD = 1.51$), $t_{\text{paired}}(498) = 17.26$, $p < .0001$, $d = .774$, 95% CI_d [.673; .873]. Adding this difference score and its interaction with ideology as additional predictors (not including NFC), we found a significant interaction, $b = .162$, $SE = .014$, 95% CI_b [.135; .189], meaning that the main effect of ideology (see Hypothesis 2) was qualified by the degree to which participants perceived both targets to differ in their political identity. See Table 4.1.

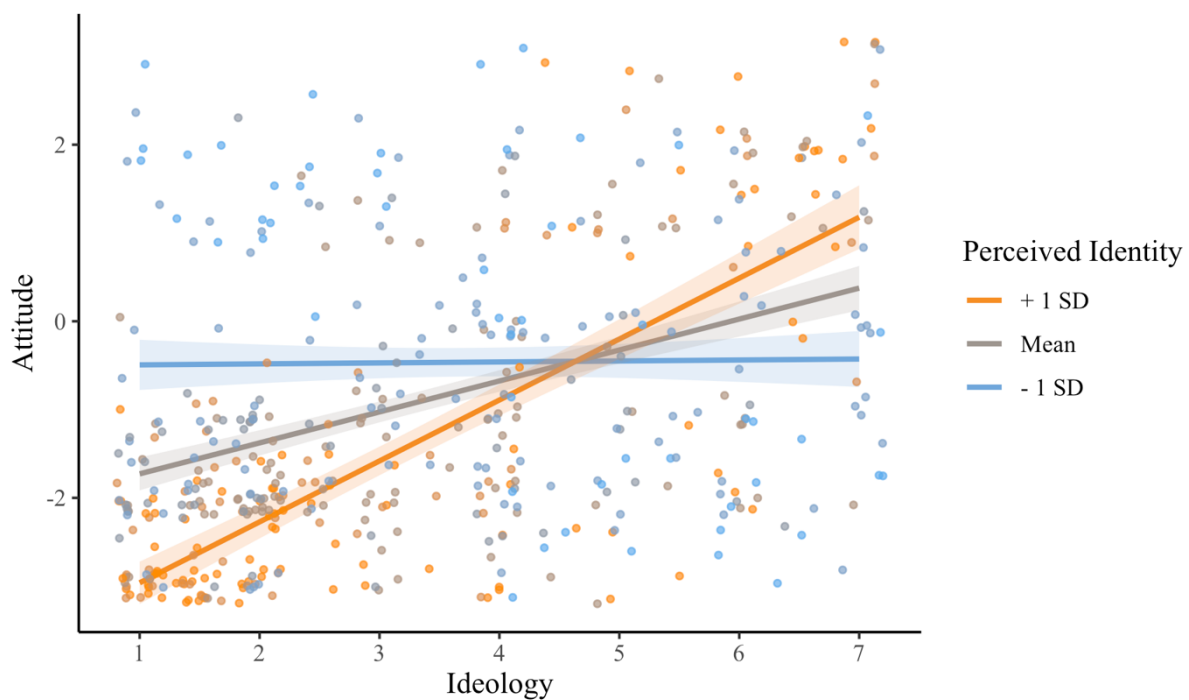
Interpretation of this interaction showed that conservatives' relatively positive attitude (compared to liberals) of the politician who used a closure-frame, was stronger among participants who perceived a large partisan divide (at +1SD), $b = .690$, $SE = .042$, $t(494) = 16.31$, $p < .0001$, 95% CI_b [.607, .773], but weak and approaching zero among participants who did not (at -1SD), $b = .011$, $SE = .043$, $t(494) = .26$, $p = .797$, 95% CI_b [-.073, .095]. In other

¹⁵ This follows our preregistered strategy to use PROCESS Model 4, which is a simple mediation model that ignores the potential moderating role of presentation order. Including presentation order as a moderator (using Model 15) yields the same null-results. We also tested whether any of the subscales mediated the effect and found that closed-mindedness did mediate the effect of condition, $b = .013$, $SE = .008$, 95% CI_b [.001, .031]. This may be seen as theoretically consistent with the moderation by perceived identity, as it also relates to partisan ingroup preferences.

words, people who perceive a large ideological divide between the two politicians and their differently framed messages, tend to side more with the politician who they believe to be part of their political ingroup. See Figure 4.1.

Figure 4.1

Study 2: Interaction between ideology and perceived identity on attitudes toward the politician



Note. The more conservative participants are (higher on the x-axis), the more positive their attitude toward a politician who frames pro-environmental action in terms of closure, relative to a politician who frames it in terms of its consequences (difference score, y-axis). This is consistent with Hypothesis 2. This effect is, however, only significant among participants who perceive the former as closely aligned with the Republican party (orange line) and not if they perceive less strong party differences (blue line). This is consistent with Hypothesis 3b. Lines show simple effects of ideology on relative attitudes (95% CI shaded).

4.3.5 Discussion

Consistent with Hypothesis 2, the more conservative participants were, the more likely they were to have a positive attitude toward a politician who framed pro-environmental action as an attempt to avoid the uncertainty, rather than the consequences, of climate change. Yet inconsistent with Hypothesis 3a, this effect was not mediated by differences in Need for Closure. Instead, the effect was driven by perceptions of the political identity of the source, given that this moderated the effect of ideology. This is consistent with the (non-preregistered) Hypothesis 3b.

4.4 Study 3 – Unpredictability Framing and Funding for NGOs

Study 3 used a similar design as Study 2, but instead of presenting participants with politicians, we now used statements by NGOs as stimuli. We did so because we expected that using NGOs (instead of politicians) would reduce the effect of perceived political identity.

4.4.1 Participants and Design

We recruited 503 American participants who took part in return for \$1.00 for a study that took at most 5 min (\$12.00 / hour or more). Sample size was based on the consideration of having at least 90% power to replicate the earlier-found correlation ($N = 456$, rounded up to 500). Two participants requested that their data be deleted from the analysis because of inattentiveness, leaving 501 valid responses (52.9% men, 46.7% women, .4% other; mean age 42.5 years; 81.0% White, 8.2% Black, 6.6% Asian, 4.2% mixed/other). Ideologically, 51.8% of participants ($n = 261$) self-identified as liberal, 15% ($n = 77$) as neutral, and 32.9% ($n = 166$) as conservative. Given that framing (closure vs. consequences) was manipulated within participants, the cell size is identical.

4.4.2 Procedure

After signing informed consent, participants were presented with the answers of two NGOs about their goals related to climate change. The order of presentation was

counterbalanced. Depending on frame (closure-frame shown; consequence-frame between parentheses), the answers read:

The goal of our organization is to avoid the long-term uncertainty (consequences) that climate change brings. When thinking of our nation's future, we dislike the unpredictability (consequences) associated with climate change. We therefore fund research that can help us know what to expect (help us avoid these effects).

4.4.3 Measures

Participants provided their attitude of each NGO separately, by answering whether they liked, between *Strongly dislike* (1) and *Strongly like* (7), and agreed with each, between *Strongly disagree* (1) and *Strongly agree* (7) (both $r_s > .820$, $p_s < .001$).

In addition, participants were tasked with splitting \$100,000 between both NGOs. Participants also indicated the perceived political identity of each of the two NGOs, by guessing which party supported each of the NGOs, between *Very likely Democrats* (1), *Neutral* (4), and *Very likely Republicans* (7).

Finally, participants completed the same two-item measure of political orientation ($r = .872$, $p < .0001$; $M = 3.47$; $SD = 1.82$) and the same fifteen-item Need for Closure Scale ($\alpha = .898$, $M = 4.60$; $SD = .98$), as in Studies 1 and 2.

4.4.4 Results

For clarity, we discuss the relative evaluation of the two NGOs and the funding distribution separately.

Hypothesis 1

As in Study 1, we found the predicted significant positive relation between conservatism and Need for Closure, $b = .060$, $SE = .024$, $p = .137^{16}$, 95% CI_b [.012, .108], $R^2 = .012$, meaning that conservatives score higher on closure needs than liberals.

¹⁶ This p-value was erroneously reported in the published paper. Please note that the correct p-value is $p = .014$.

Attitudes toward NGOs

Note that because participants evaluated each NGO separately (rather than comparing the two, as in Study 2), we used the lme4 package (Bates et al., 2015) in R to test a linear mixed-effects model with attitudes of the NGOs as the outcome and ideology, target, and their interaction as predictors, controlling for presentation order. A random intercept of participant was included to account for the dependency among the repeated evaluations.¹⁷

Hypothesis 2. Note that because participants evaluated each NGO separately, we now predict an interaction between ideology and target (closure- vs. consequence-frame). Consistent with this, we found the predicted two-way interaction between ideology and target, $b = .230$, $SE = .041$, $p < .001$, 95% CI_b [.15, .31]. Consistent with the preregistered primary prediction, conservatives had a more negative attitude (compared to liberals) of the consequence-frame NGO, $b = -.280$, $SE = .031$, $p < .0001$, 95% CI_b [-.340, -.220], but not of the closure-frame NGO, $b = -.049$, $SE = .031$, $p = .110$, 95% CI_b [-.110, .011]. Less interesting, we also found a negative main effect of ideology, $b = -.280$, $SE = .031$, $p < .0001$, 95% CI_b [-.34, -.22], meaning that liberals had overall more positive attitudes of either NGO, and of target, $b = -1.87$, $SE = .162$, $p < .0001$, 95% CI_b [-2.18, -1.55], meaning that the consequence-frame NGO was evaluated more positively than the closure-frame NGO. See Table 4.2.

Hypothesis 3a. Despite now finding the predicted positive effect of conservative ideology on Need for Closure (see Hypothesis 1, above), we found no significant evidence for the preregistered mediation on evaluation of the NGOs, by Need for Closure. A multi-level moderated mediation (5000 bootstrap resamples) including attitude as the outcome and target as a moderator, showed no evidence that the indirect effect of ideology on attitude through Need for Closure differed between targets, moderated mediation index: $b = -.005$, $SE = .005$,

¹⁷ We deviate from our preregistered GLM because this does not account for the dependency among the repeated evaluations. Following the preregistered analysis we found highly similar effects: The predicted two-way interaction between political ideology and target is significant, $F(1, 497) = 29.53$, $p < .0001$, $\eta^2_p = .056$, and shows that (compared to liberals) conservatives had a more negative attitude of the consequence-framed NGO, $r = -.386$, $p < .0001$, but not of the uncertainty-framed NGO, $r = -.073$, $p = .103$.

95% CI_b [-.016; .005].¹⁸ In other words, there is no evidence that conservatives prefer the closure-frame NGO (over the alternative frame) because of increased closure needs. As Table 4.2 shows, adding NFC and its interaction with target does not reduce the two-way interaction between ideology and target.

Hypothesis 3b. Instead, we found again support for moderation by perceived political identity. Participants expected the consequences-frame NGO to be more liberal ($M = 2.35$, $SD = 1.39$) than the closure-frame NGO ($M = 3.85$, $SD = 1.62$), $t_{\text{paired}}(500) = 15.28$, $p < .0001$, $d = .683$, 95% CI_d [.585; .779]. Adding perceived political identity (difference score) and all its interactions with ideology and target to the linear mixed-effects model, we found a significant interaction of ideology, target, and perceived identity, $b = .17$, $SE = .015$, $p < .0001$, 95% CI_b [.14; .20]. See Table 4.2. This suggests that the predicted two-way interaction between ideology and target is qualified by differences in perceived political identity of these targets.

Indeed, decomposing that interaction, we found that higher conservatism predicted a more positive attitude of the closure-frame NGO, but only among participants who perceived the two NGOs to be more ideologically different (at +1SD), $b = .119$, $SE = .041$, $p = .003$, 95% CI_b [.040; .199], while the opposite was the case among participants who did not share that perception (at -1SD), $b = -.256$, $SE = .040$, $p < .0001$, 95% CI_b [-.334, -.178]. For the consequences-frame NGO, a higher difference in perceived identity (at +1SD) was associated with stronger negative attitudes among conservatives, $b = -.445$, $SE = .041$, $p < .0001$, 95% CI_b [-.525, -.366], while this effect was weaker among participants who perceived lower differences in identity of the NGOs (at -1SD), $b = -.092$, $SE = .040$, $p = .020$, 95% CI_b [-.170, -.014]. See Figure 4.2, which plots preference for the closure-frame NGO, relative to the consequences-frame NGO (difference score), depending on perceived identity.

¹⁸ We again deviate from our preregistered analysis for the same reason as explained in footnote 14. Sticking to the preregistered analysis we find similar effects: Using PROCESS (Model 4) we found no significant evidence that the effect of ideology on relative attitudes (difference score) is mediated by Need for Closure, $b = -.006$, $SE = .005$, 95% CI_b [-.019, .003].

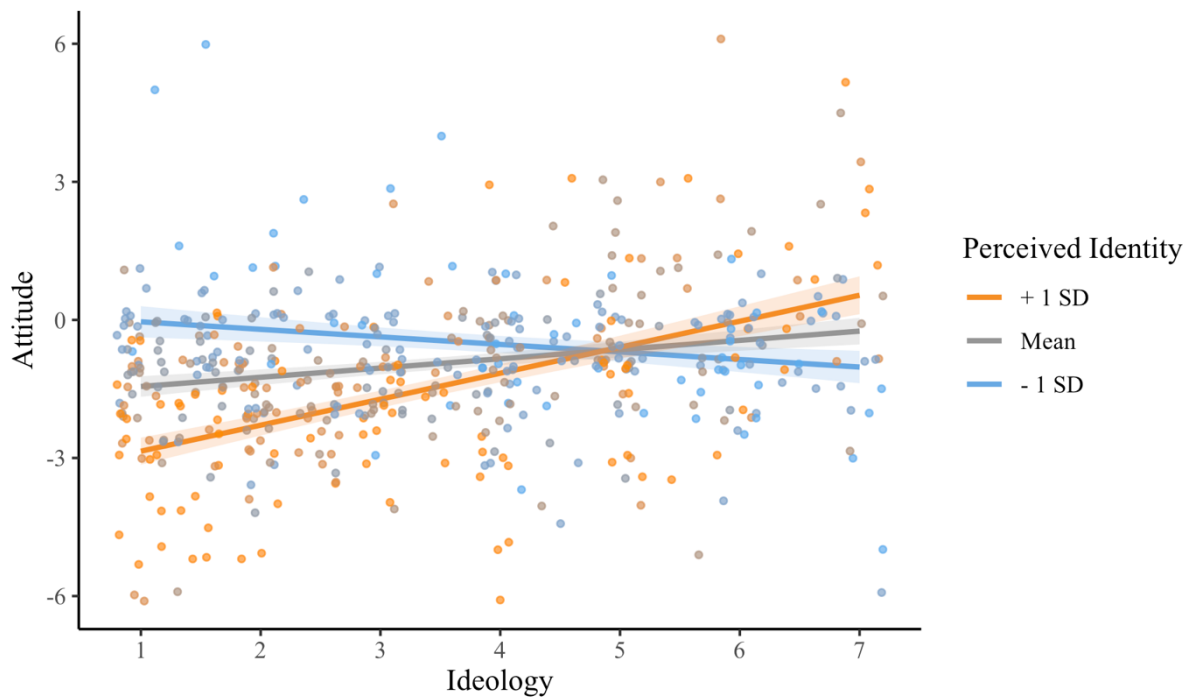
Table 4.2

Study 3: Linear mixed-effects model with attitudes toward the closure-frame NGO, relative to the consequences-frame NGO (difference score) as outcome variable

Predictors	Hypothesis 2			Hypothesis 3a			Hypothesis 3b		
	<i>b</i>	95% CI _b	<i>p</i>	<i>b</i>	95% CI _b	<i>p</i>	<i>b</i>	95% CI _b	<i>p</i>
(Intercept)	6.78	6.53, 7.02	< .001	6.14	5.57, 6.70	< .001	6.12	5.82, 6.42	< .001
Ideology	-.28	-.34, -.22	< .001	-.29	-.35, -.23	< .001	-.15	-.22, -.08	< .001
Target	-1.87	-2.18, -1.55	< .001	-1.25	-2.00, -.50	.001	-.44	-.80, -.08	.017
Order	-.07	-.24, .09	.383	-.08	-.25, .08	.339	-.07	-.24, .09	.370
Ideology * Target	.23	.15, .31	< .001	.24	.16, .33	< .001	-.05	-.13, .04	.265
NFC				.15	.03, .26	.012			
Target * NFC				-.14	-.29, .01	.075			
Perceived Identity							.37	.27, .47	< .001
Ideology * Perceived Identity							-.08	-.10, -.06	< .001
Target * Perceived Identity							-.80	-.93, -.67	< .001
Ideology * Target * Perceived Identity							.17	.14, .20	< .001
<i>R</i> ²		.285			.284			.451	

Figure 4.2

Study 3: Interaction between ideology and perceived identity on attitudes toward the NGO



Note. The more conservative participants are (higher on the x-axis), the more positive their attitude toward an NGO that frames pro-environmental action in terms of closure, relative to an NGO that instead frames it in terms of its consequences (difference score, y-axis). This is consistent with Hypothesis 2. This effect was, however, only significant among participants who perceived the former as closely aligned with the Republican party (orange line) and not among those who perceived less strong party differences (blue line). This is consistent with Hypothesis 3b. Lines show simple effects of ideology on relative attitudes (95% CI shaded).

Funding Assignment

Note that because we measured funding assignment between the two NGOs with a single item (funding distribution was a zero-sum decision), we again use linear regression and expect (Hypothesis 2) a main effect of ideology, meaning that conservatives donate more to the uncertainty-frame (and less to the consequences-frame) NGO, compared to liberals.

Hypothesis 2. Consistent with our predictions, a linear regression of the effect of participants' ideology, presentation order, and their interaction on the assignment of funding, we found a positive main effect of ideology, $b = 3.75$, $SE = .86$, $t(496) = 4.34$, $p < .0001$, 95% CI_b [2.05, 5.45], and no other main or interaction effects, all $ts < 1$, all $ps > .50$, meaning that compared to liberals, conservatives assigned relatively more funding to the closure- and less to the consequences-frame NGO. See Table 4.3.

Hypothesis 3a. Differences in closure needs did not mediate this effect (PROCESS, Model 4, 5000 bootstrap resamples), $b = -.012$, $SE = .068$, 95% CI_b [-.152, .138]. See Table 4.3, which shows that adding NFC as an additional predictor does not reduce the positive main effect of ideology (established above, Hypothesis 2).

Hypothesis 3b. Instead, we found using linear regression of the effect of participants' ideology, presentation order, their interaction, perceived political identity of both NGOs (difference score, centered), and its interaction with ideology, that the main effect of political ideology was qualified by an interaction with perceived political identity of both NGOs, $b = 2.058$, $SE = .247$, $t(494) = 8.34$, $p < .0001$, 95% CI_b [1.573, 2.543]. Conservatives only assign more funding (relative to liberals) to the uncertainty frame NGO, if participants perceive a strong (at +1SD) partisan identity preference between both NGOs, $b = 8.393$, $SE = .813$, $t = 10.33$, $p < .0001$, 95% CI_b [6.796, 9.990], but do not if they do not share that perception (at -1SD), $b = -.633$, $SE = .799$, $t = -.793$, $p = .429$, 95% CI_b [-2.202, .936].

Table 4.3

Study 3: Linear mixed-effects model with funding toward the closure-frame NGO versus the consequences-frame NGO (difference score) as outcome variable

Predictors	Hypothesis 2			Hypothesis 3a			Hypothesis 3b		
	<i>b</i>	95% CI _b	<i>p</i>	<i>b</i>	95% CI _b	<i>p</i>	<i>b</i>	95% CI _b	<i>p</i>
(Intercept)	31.54	28.38, 34.69	< .001	32.49	21.15, 43.84	< .001	33.05	28.38, 34.69	< .001
Ideology	3.75	2.05, 5.45	< .001	3.77	2.06, 5.48	< .001	3.32	1.73, 4.91	< .001
Order	-.31	-4.83, 4.22	.894	-.34	-4.89, 4.20	.883	-.57	-4.78, 3.64	.790
Ideology * Order	.80	-1.69, 3.30	.527	.79	-1.71, 3.29	.536	1.25	-1.08, 3.57	.293
NFC				-.21	-2.53, 2.12	.863			
Perceived Identity							-2.18	-3.15, -1.20	< .001
Ideology * Perceived Identity							2.06	1.57, 2.54	< .001
<i>R</i> ²		.080			.080			.207	

4.5 General Discussion

Three studies tested the idea that framing pro-environmental action as a way to increase certainty increases conservatives' support, because of conservatives' higher needs for closure. Studies 1 and 3 (but not Study 2) confirmed Hypothesis 1, that a conservative ideology is associated with higher closure needs than a liberal ideology. Testing the predicted framing effect (Hypothesis 2), Studies 2 and 3 found evidence that framing the need for pro-environmental action as a way to reduce uncertainty and increase predictability, increased support (or at least reduced opposition) among conservatives (relative to liberals). Against Hypothesis 3a, this effect was not mediated by differences in closure needs. Instead, evidence suggests that the observed effect is due to ingroup biases; participants infer that a politician (Study 2) or NGO (Study 3) who frames the need for pro-environmental action in terms of reducing the uncertainty of climate change is more conservative than one who frames it in terms of reducing its consequences (Hypothesis 3b; non-preregistered). Although not predicted, this explanation is consistent with other findings (Hurst & Stern, 2020; Wolsko et al., 2016).

4.5.1 Theoretical Implications

Turning to the main effect of the closure needs manipulation (Hypothesis 2), we believe these findings are surprising. Intuitively, one reason why some conservatives avoid the evidence of global warming is that ignoring the threat allows them to maintain a sense of certainty and predictability. Yet if that is the case, then they should react negatively to any actor that frames pro-environmental action in terms of gaining more certainty, because it directly puts the finger on the sore spot. Of course, we did not find evidence for this and instead found an opposite effect. This suggests that conservatives may harbor undisclosed feelings of uncertainty about climate change, given that they respond positively to attempts to address these.

Theoretically, our findings add to other findings in the literature showing that framing pro-environmental policies can strongly affect attitudes and support for these policies. One

reason why such framing manipulations may be quite effective, compared to more direct attempts at persuasion, is that they are less easily noticed and thus are more likely to avoid motivated resistance (Doherty & Clayton, 2011; Gifford, 2011). Given that climate change denial or other forms of opposition have grown to be a central aspect of conservative identity across the world, direct appeals for pro-environmental action easily evoke motivated resistance (Brownstein, 2010; Gromet et al., 2013; Guber, 2013; McCright & Dunlap, 2011; Weber & Stern, 2011). But framing manipulations are less easily noticed and thus are more likely to avoid motivated resistance (Doherty & Clayton, 2011; Gifford, 2011).

4.5.2 Practical Implications

Practically, a clear limitation is that although conservatives were somewhat less negative toward politicians or NGOs that used a closure frame, relative to the consequences frame, only the strongest conservatives developed a positive attitude. Furthermore, they seemed to do so only if they perceived them as conservatives (Hypothesis 3b). Therefore, although such actors can gain support among conservatives by strategically changing the framing of pro-environmental action, they might simultaneously lose support among liberals. In fact, our results suggest that liberals are opposed to pro-environmental action if it was framed in terms of closure needs. Practically, this suggests that the effectiveness of appealing to closure needs to address climate change is limited. Instead, it may be more effective to change how pro-environmental action is framed in terms of a conservative morality (Feinberg & Willer, 2013, 2019; Hurst & Stern, 2020; Wolsko et al., 2016), conservative political values (Campbell & Kay, 2014; Feygina et al., 2010), or conservative feelings of nostalgia (Baldwin & Lammers, 2016).

4.5.3 Conservatism and Closure Needs

This work was inspired by the notion that a conservative ideology is positively associated with Need for Closure—based on a literature discussion in the Introduction (Hypothesis 1). Study 1 showed a small positive correlation between conservative ideology and

closure needs, an even smaller correlation in Study 3, and no correlation in Study 2. This suggests that the relation between conservatism and closure may depend on contextual aspects associated with measurement. Indeed, one difference between these studies is that in Study 2 we measured this mediator *before* measuring participants' opinions about political issues, while in the other two studies we measured them *afterward*. Note that because we assume that political ideology and dispositional closure needs are stable, the order in which they are measured should not matter. Nonetheless, these results suggest that conservatives only show increased needs for closure if their political opinion is activated or made salient. In Study 1 in particular, participants completed various measures associated with a highly polarized political issue. It is possible that conservatives only indicate stronger closure needs if they interpret these questions with a political mindset. This connects to a recent meta-analysis on conservatism and rigidity that established a similar moderation (Costello et al., 2023).

4.5.4 Suggestions for Future Research

In Jost et al.'s (2003) model of ideology as motivated social cognition, the epistemic Need for Closure is only one of several conservative motives. Another aspect of the motivated cognition associated with political conservatism is heightened sensitivity to mortality (see also Burke et al., 2013; Jost et al., 2007, 2017). If the reasoning in the current manuscript also extends to this aspect, then framing climate change as a source of catastrophe, death, and disaster may produce similar – and possibly stronger – effects as the currently demonstrated framing effects, in particular among conservatives. On the other hand, it is also possible that appealing to anxiety and threat may have counter-productive effects and instead leads to stronger avoidance of the issue (Feinberg & Willer, 2011) or even activates or intensifies conservative values and attitudes, such as climate change denial (Fritzsche et al., 2012; Greenberg et al., 1995; Hoffarth & Hodson, 2016; Landau et al., 2004).

4.6 Conclusion

We tested whether framing pro-environmental action in epistemic terms, as a way to gain closure in the presence of a looming threat, increases support among political conservatives. Although we found support for these predictions, we also found that this effect appears to be driven by ingroup biases and is not primarily due to satisfying these closure needs. Furthermore, epistemic framing can reduce support for pro-environmental action among liberals. We believe these findings are nonetheless important because to be able to convince all of the need to fight climate change, it is not only important to identify what works, but also to identify what works less-well and why.

Chapter 5: A Historical Perspective Can Reduce Partisan Animosity

Relating the findings on epistemic framing from the previous chapter to the findings on past-focused framing from Chapters 2 and 3 supports the idea that past-focused framing has a unique potential to bridge the political divide. Despite finding support for the theoretical predictions regarding conservatives' preference for epistemic-focused policies, the data reported in Chapter 4 suggest that the effect is not driven by epistemic needs for closure. These findings contribute to a deeper understanding of the effectiveness of past-focused framing: Although conservatives' preference for past-focused political statements seems to be rooted in their stronger epistemic beliefs about the past, appealing to epistemic needs alone does not increase their support for politicians or NGOs. This supports the idea that the interplay of all types of associations with the past as well as the unique construal of it determine the effectiveness of past-focused temporal communication.

Furthermore, while epistemic framing decreases conservatives' opposition effectively only if the party affiliation of the speaker fits with their preferences (as shown by the significant three-way interaction), past-focused framing works independently from the political affiliation of the speaker (as shown by the non-significant three-way interaction in the COVID-19 study in Chapter 2). The results in Chapter 4 further suggest that liberals dislike pro-environmental policies if they are framed to fit with epistemic needs for closure, thus questioning the overall effectiveness of epistemic framing to address the ideological divide on climate change issues.

The evidence presented so far mainly focuses on the relation between conservative political ideology and past-focus preferences. It suggests that a focus on the past may be especially effective in reducing opposition on the conservative side of the political spectrum. Chapter 2 as well as previous research (e.g., Baldwin & Lammers, 2016; Lammers & Baldwin, 2018) tested this idea for liberal political ideas such as COVID-19 health measures or climate change, which tend to be rejected by conservatives. With the selection of stimuli and tested

predictors, the previous chapters strongly tapped onto the conservative side of past-focus preferences. However, this dissertation proposes that past-focused thinking can also be beneficial for liberals, as they also experience nostalgia for specific elements of past society (see Chapter 1.3.2). One aspect that is disliked by partisans from both political camps is the respective political outgroup. This animosity between opposing partisans is described as affective polarization (Iyengar et al., 2019) and will be focused in the next chapter. Based on the proposed uniting functions of the past described in Chapter 1.4.2, the current work argues that past-focused thinking about political opponents should reduce outgroup hostility for people across the political spectrum (despite stronger effects for conservatives), paving the way to mutual ideological rapprochement. Chapter 5 is based on the following manuscript:

Lammers, J.* , & Schulte, A.* (2023). *A historical perspective can reduce partisan animosity.*

Manuscript submitted for publication to *Proceedings of the National Academy of Sciences*. *Shared first authorship.

Please note that some changes in citation style and formatting were undertaken to keep the layout of this dissertation consistent. No changes were made to the content of the article. Please also note that the section order of the manuscript differs from the previous chapters, since the journal this manuscript was submitted to (i.e., *Proceedings of the National Academy of Sciences*) asks authors to include the materials and methods after the results and discussion. More detailed information on the studies and additional analyses appear in the Supporting Information (SI) Appendix.

Abstract

The US and many other Western democracies are plagued by ideological animosity between the political left and right. To avoid the fracturing of society, it is important to identify psychological mechanisms that can reduce this problem. In three controlled experiments, we demonstrate that a historical perspective can effectively increase liking, trust, and cooperation across political lines. Study 1 uses an experimental design to demonstrate that adopting a historical perspective by reflecting on what their political opponents used to be like in the past leads both Democrats and Republicans to focus on their fundamentally shared values. This focus on similarities leads to a more positive view of political opponents. Study 2 shows that a member of the opposing party who adopts a historical perspective and expresses a preference for their own party of the past is trusted more by both Democrats and Republicans. Study 3 uses an incentivized prisoner's dilemma game to demonstrate that Democrats and Republicans share almost one-third more money with an opponent who adopts a historical perspective in a staged interaction. Together, our findings suggest that in a society that drifts apart in two opposing camps, occasionally returning to the historical position of own parties facilitates finding common ground.

Keywords: polarization, politics, perception, time, nostalgia

Significance Statement

In today's polarized political landscape, bridging the gap between ideological opposites is crucial for a healthy democracy. We provide experimental evidence showing that mutual trust and cooperation with political opponents can be increased by encouraging people to consider the historical position and values of political parties. In a time when political divisions threaten to fragment society, this research shows that history can act as a repository to find common ground, reduce political animosity, and foster cooperation across party lines.

5.1 Introduction

In the United States and many countries around the world, recent years have seen a deepening of animosity between supporters of opposing political parties. Disagreement along political-ideological lines is not necessarily a problem and can indicate a functioning, lively democracy. Given that people prefer to exchange with like-minded individuals, society will always show some degree of ideological clustering. Yet in contrast to such ideological polarization, which refers to a mere divergence in the political debate, affective polarization refers to a deeper-running divergence where political opponents see each other not only as mistaken but even as immoral or evil (Abramowitz & Saunders, 2008; Bail et al., 2018; Finkel et al., 2020; Iyengar et al., 2019; Iyengar & Krupenkin, 2018; Iyengar & Westwood, 2015; McCarty, 2019; Ruggeri et al., 2021; Skitka, 2010). Affective polarization can easily evolve into a self-reinforcing problem, because the more strongly society is clustered in two homogeneous political factions, the stronger the tendency to further entrenchment and to form even more negative expectations about how the outgroup sees the ingroup (Axelrod et al., 2021; Balietti et al., 2021; Kawakatsu et al., 2021; Levendusky, 2009a; Mernyk et al., 2022). Today's society offers ample opportunities for people to entrench themselves in their own ideological base. For instance, online and traditional media allow people to retreat into echo chambers and avoid information that can challenge their world views (Kubin & von Sikorski, 2021; Lelkes et al., 2017). Furthermore, politicians appeal to this animosity by engaging in political discourse that further exacerbates affective polarization (Axelrod et al., 2021; Leonard et al., 2021). As a result, the issue can easily turn into a wildfire that is impossible to extinguish. Indeed, there is evidence that American society is already close to this point (Kawakatsu et al., 2021). This makes it critically important to also identify opportunities to reduce animosity and restore trust across party lines. In response, scientists have started to look for ways to reduce hostility between political opponents and increase their willingness to work together (Bail et al., 2018; Balietti et al., 2021; Axelrod et al., 2021; Mernyk et al., 2022; for an

overview see Hartman et al., 2022). Solely focusing on policy compromise is not effective in reducing the conflict (Dias & Leikes, 2022; Huddy & Yair, 2021). Instead, given that affective polarization is rooted in identity concerns, more effective interventions aim to reduce negative views of the outgroup, while respecting the need for an own, distinct group identity (Levendusky, 2018; West & Iyengar, 2022; Wojcieszak & Warner, 2020).

We propose that one approach to reach this goal is to introduce a historical perspective on Democrats and Republicans. Over the last 150-plus years, the two dominant parties in American politics have repeatedly shifted their ideological alignment. Most recently, both parties have moved in opposite directions, with Republicans becoming more conservative and Democrats more liberal (Levendusky, 2009b). Adopting a historical perspective reminds partisans on both sides that their opponents have not always held such contrasting values and underscores that their differences are not fixed but malleable. This shifts the focus from current differences between the two groups' values to their underlying similarities which, in turn, leads to more positive attitudes toward the opposing group (Halperin et al., 2011). We further expect that this effect is catalyzed by two psychological processes – one perceptual and the other affective: Perceptually, taking a historical perspective on political opponents increases temporal distance, which leads people to construe these opponents at a higher level of abstraction (Trope & Liberman, 2010). This shift in perception redirects people's attention away from the concrete differences of opinion between the two parties and instead shifts their attention to more abstract, higher-order values that characterize both parties (Fujita et al., 2008; Kivetz & Tyler, 2007). Such abstract values as freedom, prosperity, or safety are more likely to be shared between Democrats and Republicans, and therefore focusing on abstract values increases perceived similarity (Barsalou, 1985; Unkelbach et al., 2008). Affectively, adopting a historical perspective can evoke powerful nostalgic emotions which can improve intergroup relations. Although nostalgia is commonly conceptualized as an emotion associated with meaningful personal memories, the emotion can also be experienced when people think back of collective

memories of groups in society (Wildschut et al., 2014). One important psychological effect associated with nostalgia is that it fosters the motive to find common ground with others by increasing feelings of group cohesion and similarity (Sedikides & Wildschut, 2019; Wildschut et al., 2010). Such effects also apply to the political domain; taking a historical perspective can reduce conservative opposition to liberal ideas such as when fighting climate change (Baldwin & Lammers, 2016; Lammers & Baldwin, 2018).

In summary, we predict that a historical perspective can reduce affective polarization because it increases perceived similarity between the own party's and opponents' values. In addition, a historical perspective helps reconceptualizing opponents in more abstract terms and evokes nostalgic emotions, which further add to perceived value similarity. Building on this, we predict that when Democrats and Republicans interact with a political opponent who adopts a historical perspective on their own party, it fosters a sense of mutual trust, where partisans not only respect their opponents but also trust them and share resources in a reciprocal manner (Dovidio et al., 1998; Kramer & Brewer, 1984; Rempel et al., 1985; Wolf et al., 2021).

5.1.1 Overview of Studies

We conducted five preregistered controlled experiments to test these predictions. Studies 1a, 1b, and 1c test how adopting a historical focus affects Democrats' and Republicans' perceptions of their political opponents. Studies 2 and 3 switch paradigms and test how adopting a historical focus by an opponent affects the degree to which Democrats and Republicans trust that opponent and share a financial endowment with them. Preregistrations, material, code, and data are available at:

https://researchbox.org/1882&PEER_REVIEW_passcode=BYFJKS.

5.2 Results

5.2.1 Study 1

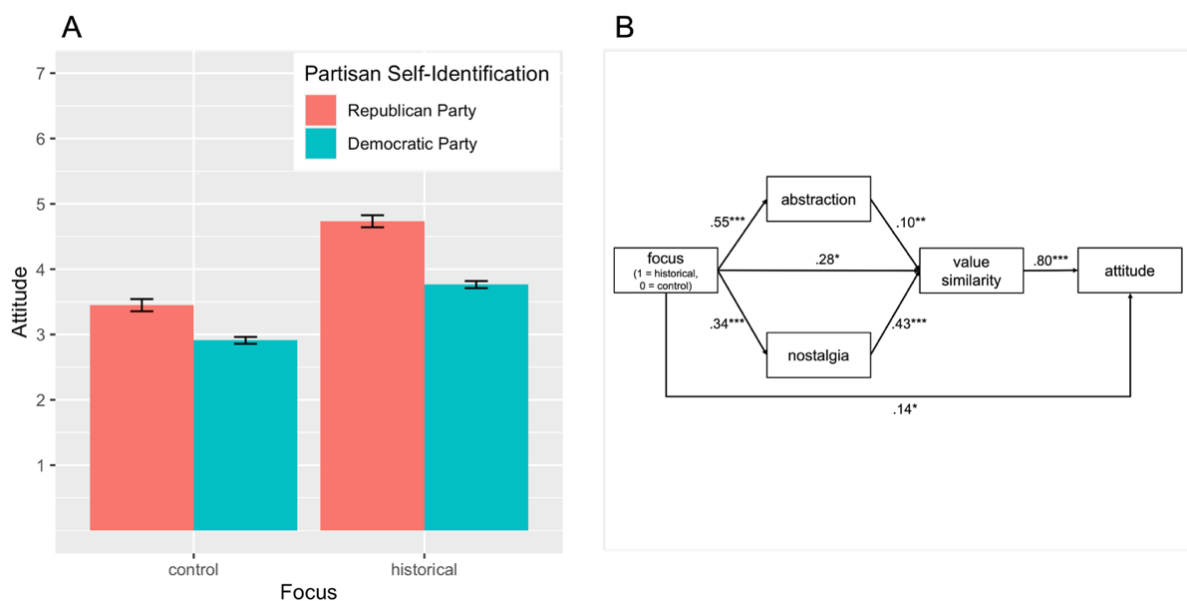
In Studies 1a, 1b, and 1c, we used a stimulus-sampling approach (Wells & Windschitl, 1999) to measure associations of $N = 2,383$ American Democrats and Republicans with their political opponents. Depending on random assignment, participants either took a historical perspective by focusing on their opponents from the past or focused on their opponents today. Across these three studies, we slightly changed instructions and focused on opponents' values at a specific time in the past (Study 1a), political figures associated with the opposing party (Study 1b), or values that opponents have held throughout history (Study 1c). Given the similarity in designs and given that results consistently replicated, we here report the treatment effect across the pooled data (study-wise results appear in the SI Appendix). In line with our assumptions, adopting a historical perspective on political opponents led to more positive attitudes, $t(2373.5) = 14.80, p < .001, d = 0.61, 95\% \text{ CI}_d [0.53, 0.69]$. A linear mixed-effects model confirmed this medium-to-large-sized treatment effect: Participants who took a historical perspective evaluated opponents more positively than those who did not, $b = 0.89, SE = 0.08, p < .001, 95\% \text{ CI}_b [0.74, 1.04]$. Although we expected that this effect would be stronger for Republicans, given conservatives' stronger collective nostalgia (Baldwin & Lammers, 2016; Lammers & Baldwin, 2018), we found no such difference, $b = 0.23, SE = 0.14, p = .093, 95\% \text{ CI}_b [-0.04, 0.50]$, suggesting that a historical perspective improved both Democrats' and Republicans' views of each other about equally strongly. See Figure 5.1A.

Further consistent with our theorizing, participants who took a historical perspective focused more on overlapping, similar values between the two groups. For example, in Study 1a, values listed by Republicans to describe Democrats in the past were more likely to be also used by Democrats when describing Republicans in the past, $r = .76, p < .001, 95\% \text{ CI} [.46, .91]$, while this was not the case among participants who did not take a historical perspective, $r = -.33, p = .173, 95\% \text{ CI} [-.69, .16]$. In Study 1c, participants who took a historical perspective

believed their own values to be more similar to opponents' values, compared to participants who did not take a historical perspective, $t(788.53) = 3.97$, $SE = 0.12$, $p < .001$, $d = 0.28$, 95% $CI_d = [0.14, 0.42]$. Consistent with our theorizing, results of mediation analysis supported the idea that taking a historical perspective improves attitudes and increases similarity toward opponents, because it leads to a more abstract construal of opponents, $b = 0.04$, $SE = 0.02$, 95% $CI_b [0.01, 0.08]$ and because it increases nostalgia, $b = 0.12$, $SE = 0.04$, 95% $CI_b [0.05, 0.20]$. See Figure 5.1B.

Figure 5.1

Study 1: Attitude toward political opponents as a function of partisan self-identification and focus (A) and serial-parallel mediation (B)



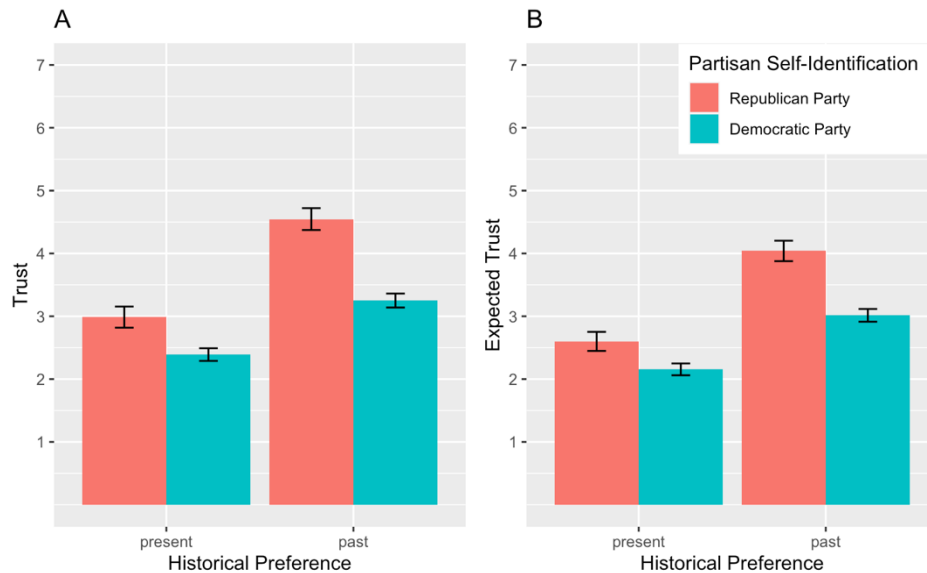
Note. Both Republicans and Democrats have more positive associations when thinking of opponents with a historical focus compared to a control condition without such a focus (A). Error bars represent the standard error of the mean. The positive effect on attitudes toward political opponents was mediated by a higher similarity with participants' own values, which was due to stronger nostalgia and higher abstraction induced by the manipulation (B). * $p < .05$, ** $p < .01$, *** $p < .001$.

5.2.2 Study 2

$N = 275$ American Democrats and Republicans took part in a staged interaction with political opponents. That is, Democrats believed they were paired with a Republican and vice versa. Depending on random assignment, assigned opponents expressed a scripted historical preference for their own party's past values or their party's current values today. Participants then indicated their trust in these opponents. Consistent with the established importance of meta-perceptions (Mernyk et al., 2022; Moore-Berg et al., 2020), we also measured whether participants believed that their assigned opponent would trust them. We again found a medium-to-large sized effect of condition, $t(274) = 10.14, p < .001, d = 0.61, 95\% CI_d = [0.48, 0.74]$. We found that participants trusted opponents who expressed a historical preference more than opponents who did not express such a preference, $b = 0.84, SE = 0.12, p < .001, 95\% CI_b [0.61, 1.08]$, and also expected opponents with a historical preference to trust them back more, compared to opponents who did not express such a preference, $b = 0.85, SE = 0.11, p < .001, 95\% CI_b [0.63, 1.06]$. Although both treatment effects were stronger for Republicans than for Democrats ($p < .001$, and $p = .004$, respectively), simple effects within each party were highly significant. See Figure 5.2.

Figure 5.2

Study 2: Trust (A) and expected trust (B) toward a political opponent assigned as interaction partner, as a function of own political identity and the interaction partner's expressed historical preference



Note. Both Republicans and Democrats trust and expect to be trusted more by an opponent who prefers their own party's past compared to an opponent who expresses a preference for their party today. Error bars represent the standard error of the mean.

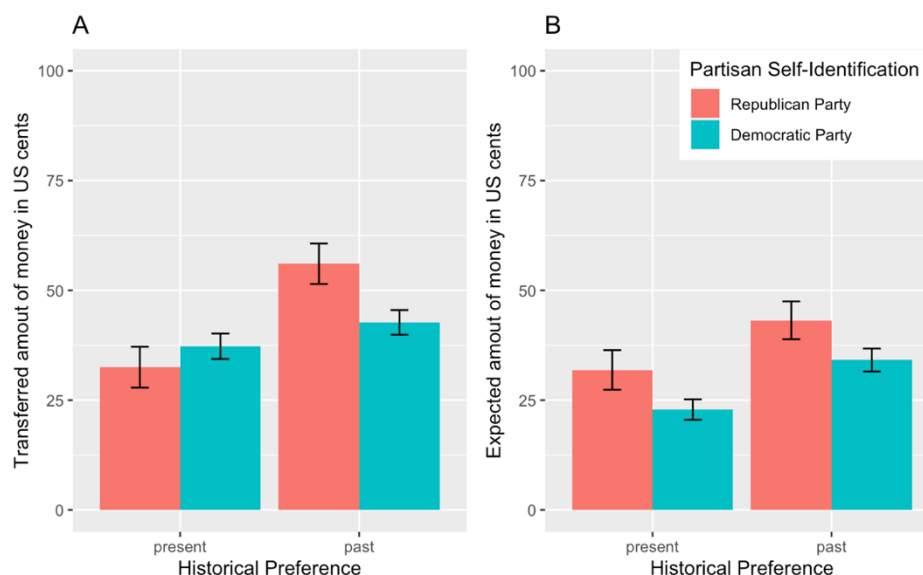
5.3.3 Study 3

Moving beyond mere expressions of trust, Study 3 measured trust by studying decisions in a situation of economic mutual dependency. $N = 486$ American Democrats and Republicans played a continuous prisoner's dilemma (Dorrough & Glöckner, 2016; Wahl & Nowak, 1999) in a staged interaction with an ideological opponent. Depending on random assignment, the opponent either expressed a scripted historical preference for their own party's past values or today's values. Participants were then offered the opportunity to share between 0 to 100 US cents from a \$1.00 endowment to their assigned partner, keeping the rest, while their partner would do the same. Any amount shared would be doubled, resulting in a classic social dilemma structure of a prisoner's dilemma (Dorrough & Glöckner, 2016; Wahl & Nowak, 1999).

Participants also indicated how much they expected their opponent to share. We found a small-to-medium sized effect of condition on monetary transfer, $t(483.89) = 2.99, p = .003, d = 0.27$, 95% $CI_d = [0.09, 0.45]$ and on expected transfer, $t(481.80) = 3.69, p < .001, d = 0.34$, 95% $CI_d = [0.16, 0.52]$. Compared to those who interacted with opponents who prefer their party's current values, participants who interacted with opponents who expressed a historical preference shared 29% more money with their opponents, $b = 10.51, SE = 3.45, p = .002$, 95% $CI_b [3.74, 17.28]$, and also expected their opponent to share 45% more, $b = 11.64, SE = 3.03, p < .001$, 95% $CI_b [5.70, 17.58]$. Although the treatment effect on transferred money was stronger for Republicans than for Democrats ($p = .008$), simple effects within each party showed that an opponent who expressed a historical preference increased mutual sharing among both Democrats and Republicans. See Figure 5.3.

Figure 5.3

Study 3: Transfer to (A) and expected transfer from (B) an opponent, assigned as interaction partner, as a function of political identity and the interaction partner's expressed historical preference



Note. Both Republicans and Democrats share a larger part of a \$1.00 endowment and expect a larger return, if their opponent expresses a preference for their own party's past, rather than their own party today. Error bars represent the standard error of the mean.

5.3 Discussion

When people construe political conflict by thinking of contemporary issues, they tend to focus on specific differences between parties today. However, taking a higher-level historical perspective provides a different lens through which people instead perceive what unites them. Although both Democrats and Republicans have negative associations with their political opponents, adopting a historical perspective leads both ideological groups to think of their opponents in a more abstract and nostalgic manner, which leads to more positive views of opponents that are more similar to how people see their own group. Consequently, when Democrats and Republicans interact with opponents who adopt a similar historical preference, this increases mutual trust and sharing of financial resources.

Political animosity is a difficult, multifaceted problem that can only be effectively addressed with a combination of interventions (Baldassarri & Page, 2021). Our findings suggest that occasionally adopting a historical perspective by reflecting on the historical roots of political parties holds promise for mitigating ideological tensions. Importantly, we not only show that adopting a historical perspective enhances the perception of opponents by both Democrats and Republicans (Study 1), but we also show that if opponents adopt a similar historical perspective, it enhances trust among members of both parties (Studies 2 and 3). The latter finding is critical given the importance of mutual trust for reducing affective polarization (Mernyk et al., 2022; Moore-Berg et al., 2020). A notable advantage of this approach is that it does not require partisans to compromise on their political identity, but instead allows them to reinforce their allegiance to the core values of their party across time, thus reaffirming their political identity. Another strength of our findings is that these effects were not limited to moderates, but in fact were even stronger for individuals with a strong political identity (see SI Appendix for detailed results). In light of the increasing polarization in Western democracies, these findings are of particular importance. Our studies focused only on the United States, where affective polarization is particularly strong. Future research should test whether these

effects also hold in countries with different political landscapes and different histories of partisan traditions.

Conclusion

In a society that drifts apart into two political camps, history offers opportunities to bridge the ideological divide. Contemporary political discourse often revolves around present-day positions and petty conflicts, but a historical perspective can mitigate ideological tensions and lead people to focus on what unites, rather than divides them.

5.4 Materials and Methods

Preregistrations, data, materials, and code can be accessed at:

https://researchbox.org/1882&PEER_REVIEW_passcode=BYFJKS. All participants were US citizens. We used data-quality tools provided by Prolific.com to ensure high-quality samples. Participants were barred from taking part in more than one study. Participants provided informed consent explaining the voluntary nature of their participation and that responses are kept confidential. All five studies were conducted consistent with the Declaration of Helsinki, and all five are exempt from Institutional Review Board approval by guidelines of the German Psychological Society DGPs (Deutsche Gesellschaft für Psychologie, 2018).

Participants in **Study 1a, b, and c** were 800, 802, and 798 US American citizens ($M_{age} = 40.1$ years; 44% female, 55% male, 1% other; 73% Democrats, 27% Republicans) drawn from Prolific Academic. Following preregistered exclusion criteria, 17 inattentive participants were deleted. Participants listed four values they associated with their opponents from the other party. Depending on condition, they either did so by thinking of their opponents taking a historical perspective (by either thinking of opponents from 1950 in Study 1a, across the 20th century in Study 1b, or throughout history in Study 1c) or by thinking of their opponents today. Next, participants rated each of these four values on a 7-point scale, between *Very negative* and *Very positive*. Nostalgia and abstraction were measured in Study 1c using single-item, 7-point self-report scales asking them how specific versus abstract their thoughts about the opponents

were and how nostalgic they felt while thinking about the opponents' values. Value similarity was operationalized as how similar the named values of opponents are to participants' own values, also on a 7-point scale.

Participants in **Studies 2 and 3** were $N = 280$ and $N = 490$ US American citizens ($M_{\text{age}} = 39.6$ years; 42% female, 55% male, 3% other; 73% Democrats, 27% Republicans), drawn from Prolific Academic. Following preregistered exclusion criteria, nine inattentive participants were deleted. Verbatim instruction texts used in the staged interaction are provided in the materials section in the ResearchBox. In both studies, participants completed two 7-point items asking to what degree they trust their assigned opponent and to what degree they expect that opponent to trust them, both between *Not at all* and *Very much*. In addition, participants in Study 3 received a 100 US cents endowment from which they could transfer any amount in steps of 10 US cents to their assigned opponent. The amount transferred was doubled and added to their account, whereas any amount not transferred remained in the personal account, resulting in a classic social dilemma structure of a prisoner's dilemma (Dorrough & Glöckner, 2016; Wahl & Nowak, 1999). Additionally, participants indicated their expectations regarding the respective interaction partner's transfer in cents.

Across all five studies we measured strength of political opinion using two continuous 7-point items. We conducted all analyses for all studies replacing the dichotomous measure of ideology (Democratic vs. Republican party) with the continuous measure (7-point Likert scale) and found the same result patterns (see Figures S5.1-S5.3 in the SI Appendix). The models we tested also included ideological extremity and tested the hypothesized main effects and interactions hierarchically. Across studies, results showed that the treatment effects applied to moderates and extremists. For reasons of clarity, we report the full analyses in the SI Appendix. Additional items included for exploratory purposes are accessible via the ResearchBox. In our analyses of Studies 2 and 3 we only focus on trust and expected trust, but the remaining dependent variables all showed significant treatment effects in line with our predictions.

5.5. Supporting Information Appendix

5.5.1 Supporting Information Text

Overview

In the main manuscript, we show that a historical perspective (taken by participants or adopted by an assigned interaction partner) increases attitudes, trust, and sharing in an incentivized prisoner's dilemma game. We also show that this effect occurs for both Democrats and Republicans. Here, we report a series of hierarchical linear mixed-effects models to account for the repeated measurements used in the studies, to test the robustness of this effect, and to determine whether the effect depends on the extremity of individuals' political views. We also report the mediation analyses reported in Studies 1a, 1b, and 1c in more detail.

Best practices

All five studies were preregistered, and all preregistrations included the study design, planned sample size, exclusion criteria, and planned analyses. Links are provided per study. We report all planned analyses and note where we deviate from the preregistered analyses. We report how we determined our sample size, all data exclusions (if any), all manipulations, and all measures in the studies. We share our preregistrations, data, codebooks, and analysis scripts for all studies in an online ResearchBox (https://researchbox.org/1882&PEER_REVIEW_passcode=BYFJKS).

5.5.2 Study 1a-c

Participants and Design

The data from Studies 1a, 1b, and 1c were analyzed in a multilevel Integrative Data Analysis (IDA; Curran & Hussong, 2009) including the pooled data from all studies while accounting for the different studies and centering political ideology within each study. We approached 2,400 participants from the United States via Cloudresearch.com (Study 1a; $N = 800$) and Prolific.com (Studies 1b and 1c; $Ns = 798$ and 802). Following established procedures and recommendations, we used the platforms' built-in mechanisms to carefully

select and restrict participants, ensuring the collection of high-quality data (Chandler et al., 2019; Hauser et al., 2022; Litman et al., 2017). Participants were randomly assigned to one of two experimental conditions (historical focus vs. control; between). We used G*Power (Faul et al., 2007) to set sample size to detect a small to medium effect size ($f = .10$) with 80% power and rounded up the calculated sample size ($N = 787$ per study) to account for any data exclusion. Following our preregistration, 17 participants ($n = 7$ in Study 1a, $n = 7$ in Study 1b, $n = 3$ in Study 1c) were excluded a priori because of self-reported inattention, resulting in a final sample of $N = 2,383$ ($M_{\text{age}} = 40.1$ years, $SD_{\text{age}} = 13.2$, 43.7% female, 54.6% male, 1.2% other, 0.4% prefer not to say). The studies are preregistered at: https://aspredicted.org/MTH_NSP (Study 1a), https://aspredicted.org/V87_FG7 (Study 1b), and https://aspredicted.org/CDM_RWB (Study 1c).

Materials and Procedure

To determine participants' political outgroup, participants first indicated their own party identification using a forced-choice question (Democratic Party vs. Republican Party [GOP]). Next, participants were asked to list four values associated with their political outgroup, meaning that self-identified Republicans reflected on Democrats, whereas self-identified Democrats thought about Republicans. The instructions were identical in both conditions, except for the focus. Specifically, in the historical-focus condition, participants were asked to name values (Study 1a) or politicians' characteristics (Study 1b) from the political outgroup in the past. In Study 1c, we also measured outgroup values, but instead of instructing participants to think of the past, they were instructed to think about outgroup values that have existed throughout history. In all studies, participants in the control condition named associations with the outgroup today. Verbatim instruction texts are provided in the materials section in the ResearchBox. After indicating their associations with the political outgroup, participants rated these self-generated associations between *Very negative* (1) and *Very positive* (7). Next, participants indicated their political ideology using two 7-point Likert items, between *Very*

liberal (1) and *Very conservative* (7) and between *Strongly prefer Democrats* (1) and *Strongly prefer Republicans* (7), which correlated strongly (all $r_s > .85$, $p < .001$) and were combined into one index of participants' political ideology. To obtain participants' political extremity, we calculated the absolute difference between their ideology value and the scale midpoint.

Nostalgia, abstraction, and value similarity were measured in Study 1c using single-item, 7-point self-report scales: Participants read a definition of nostalgia and then rated how nostalgic they felt while thinking about their opponents' values, between *Not at all* (1) and *Very much* (7). They were also asked whether they thought of specific examples, people, and situations or of general abstract characteristics of their opponents, between *Very specific* (1) to *Very abstract* (7), and they rated how similar the named values are to their own values, between *Very dissimilar* (1) and *Very similar* (7). For exploratory purposes, we included additional items which are not discussed further and can be found in the materials section of the ResearchBox.

Results

Attitudes. Consistent with our predictions, participants who adopted a historical perspective had more positive attitudes of political opponents ($M = 4.09$, $SD = 2.06$) than participants who thought of opponents today ($M = 3.08$, $SD = 1.97$), $t(2373.5) = 14.80$, $p < .001$, $d = 0.61$, 95% $CI_d [0.53, 0.69]$. In the following, we report a series of hierarchical linear mixed-effects models (treating participant and study number as random factors, the predictors as fixed factors, and attitudes toward the political outgroup as the outcome variable) to account for repeated measurements and multiple studies and to test the robustness of the effect of condition (historical focus vs. control), after controlling for political extremity, party identification, and their interactions with condition. Note that in Studies 1a, 2, and 3 we did not explicitly preregister a hierarchical regression but preregistered the included predictors separately, since the focus was slightly different between some of the studies. For reasons of consistency, we will report the analyses as hierarchical regressions. Preregistered analyses appear online in the ResearchBox.

In Step 1, we included condition as a predictor and added political extremity and party identification (Republican vs. Democrats) as covariates. This linear mixed-model showed a significant main effect of condition on attitude, $b = 1.00$, $SE = 0.06$, $t(9524) = 15.66$, $p < .001$, 95% CI_b [0.87, 1.12], even in the presence of main effects of extremity and party identification. See Table S5.1. Participants with more extreme beliefs reported more negative attitudes toward their outgroup than moderates, $b = -0.47$, $SE = 0.04$, $t(9524) = -12.88$, $p < .001$, 95% CI_b [-0.55, -0.40], while self-identified Republicans reported more positive attitudes than Democrats, $b = 0.87$, $SE = 0.07$, $t(9524) = 12.63$, $p < .001$, 95% CI_b [0.74, 1.01].

In Step 2, we tested the interaction of condition and extremity. This showed that the manipulation affects participants with extreme political beliefs more than it affects moderates, $b = 0.45$, $SE = 0.07$, $t(9523) = 6.22$, $p < .001$, 95% CI_b [0.31, 0.59].

In Step 3 we additionally tested whether this interaction with extremity is stronger for Democrats or Republicans, by adding party identification and its interactions. This revealed a significant three-way interaction of condition, extremity, and political self-identification, $b = 0.43$, $SE = 0.15$, $t(9520) = 2.89$, $p = .004$, 95% CI_b [0.14, 0.42], showing that a historical focus has a particularly strong effect on extreme conservatives' outgroup attitudes. See Figure S5.1. See Table S5.1 for the complete results of all mixed-effects models and Table S5.2 for the results for Studies 1a, b, and c separately.

Note that in the Main Manuscript, we present analyses with political identification as a dichotomous item (Democrats vs. Republicans). When these same analyses are conducted using the continuous (7-point Likert scale) measure of ideology, it produces nearly identical results. See the outputs section in the ResearchBox.

Table S5.1

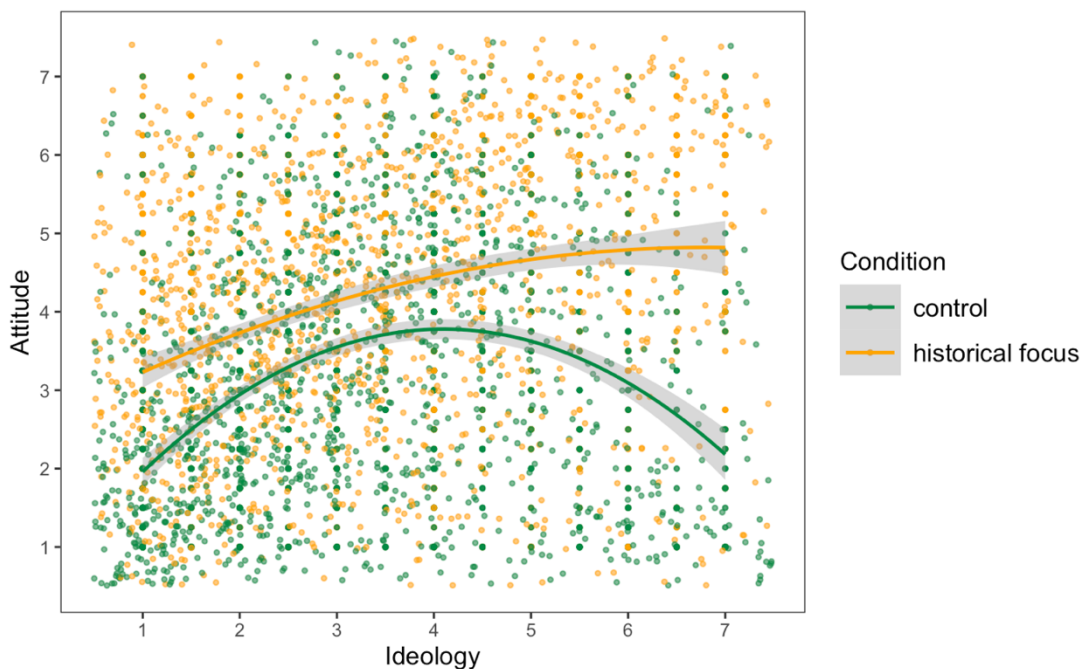
Regression results using attitude toward the political outgroup as the criterion in Studies 1a-c

Predictors	Step 1	Step 2	Step 3
(Intercept)	2.80***	2.80***	2.85***
Condition (1 = past, 0 = present)	1.00***	1.00***	0.89***
Extremity	-0.47***	-0.70***	-0.64***
Party identification (1 = Rep., 0 = Dem.)	0.87***	0.87***	0.75***
Condition × Extremity		0.45***	0.25**
Condition × Party Identification			0.23
Extremity × Party Identification			-0.11
Condition × Extremity × Party Identification			0.43**
R^2	0.124	0.133	0.137
ΔR^2		0.009***	0.004**

Note. Table displays unstandardized regression weights. ** $p < .01$, *** $p < .001$.

Figure S5.1

The interaction of condition and continuous political self-identification (on a 7-point scale) on attitude toward the political outgroup in Studies 1a-c



Note. Data are jittered to avoid over-plotting.

Table S5.2

Regression results using attitude toward the political outgroup as the criterion in Studies 1a, b, c separately

	Predictors	Step 1	Step 2	Step 3
<i>Study 1a</i>	(Intercept)	2.86***	2.84***	2.91***
	Condition (1 = historical focus, 0 = control)	1.37***	1.36***	1.22***
	Extremity	-0.41***	-0.71***	-0.66***
	Party identification (1 = Rep., 0 = Dem.)	1.06***	1.10***	0.90***
	Condition × Extremity		0.60***	0.55**
	Condition × Party Identification			0.38
	Extremity × Party Identification			-0.02
	Condition × Extremity × Party Identification			-0.03
	R^2	0.176	0.193	0.194
	ΔR^2		0.017***	0.001
<i>Study 1b</i>	(Intercept)	2.61***	2.63***	2.72***
	Condition (1 = historical focus, 0 = control)	1.06***	1.06***	0.85***
	Extremity	-0.47***	-0.68***	-0.63***
	Party identification (1 = Rep., 0 = Dem.)	0.94***	0.90***	0.66***
	Condition × Extremity		0.44***	0.23
	Condition × Party Identification			0.50
	Extremity × Party Identification			-0.05
	Condition × Extremity × Party Identification			0.30
	R^2	0.123	0.132	0.137
	ΔR^2		0.009***	0.005
<i>Study 1c</i>	(Intercept)	2.98***	2.98***	2.92***
	Condition (1 = historical focus, 0 = control)	0.55***	0.55***	0.68***
	Extremity	-0.71***	-0.86***	-0.78***
	Party identification (1 = Rep., 0 = Dem.)	0.40**	0.39**	0.59**
	Condition × Extremity		0.29*	0.14
	Condition × Party Identification			-0.39
	Extremity × Party Identification			-0.20
	Condition × Extremity × Party Identification			0.39
	R^2	0.114	0.117	0.121
	ΔR^2		0.009*	0.004

Note. Table displays unstandardized regression weights. * $p < .05$, ** $p < .01$, *** $p < .001$.

Similarity (non-preregistered). The sampling approach that we applied in Studies 1a-c enables us to additionally investigate the specific values that people ascribed to their political outgroup. To test the idea that people across the political spectrum have similar ideas about their opponents from the past, we tested whether values that people named for Democrats and for Republicans in the historical-focus condition of Study 1a are more similar to each other than values that were named for both groups in the control condition. In line with this prediction, we found in the historical focus condition that, among the 20 most frequently named values, the likelihood of a value to be listed by Republicans to describe Democrats correlated positively with the likelihood of the same value to be listed by Democrats when describing Republicans, $r = .76, p < .001, 95\% \text{ CI } [.46, .91]$. In contrast, in the control condition, values that were named for Republicans were not more likely (descriptively even less likely) to be named for Democrats, $r = -.33, p = .173, 95\% \text{ CI } [-.69, .16]$. Including all named values resulted in the same pattern.

Serial-parallel mediation. In line with our theorizing, we found that adapting a historical perspective was positively related to higher similarity between the participants' values and their opponents' values ($r = .14, p < .001$). Using Model 6 of the PROCESS macro for R with 5,000 Bootstrap samples (Hayes, 2013), we tested whether abstract thinking and nostalgia mediate this relation. Focusing on the a-paths of the serial-parallel mediation model, participants who adapted a historical perspective showed a higher level of abstraction, $b = 0.55, SE = 0.12, t(792) = 4.49, p < .001, 95\% \text{ CI}_b [0.31, 0.79]$, and had more nostalgic feelings, $b = 0.34, SE = 0.10, t(792) = 3.43, p < .001, 95\% \text{ CI}_b [0.15, 0.54]$, compared to participants in the control condition. Similarity was predicted by both abstraction, $b = 0.10, SE = 0.03, t(791) = 3.01, p = .003, 95\% \text{ CI}_b [0.03, 0.16]$, and nostalgia, $b = 0.43, SE = 0.04, t(791) = 11.00, p < .001, 95\% \text{ CI}_b [0.35, 0.50]$, and in turn predicted more positive attitudes toward political opponents, $b = 0.80, SE = 0.02, t(790) = 43.19, p < .001, 95\% \text{ CI}_b [.77, .84]$. As a result, the relation between a historical perspective and positive attitudes toward opponents was

significantly mediated by similarity via abstraction, $b_{\text{indirect}} = 0.04$, $SE = 0.02$, 95% CI_b [0.01, 0.08] and by similarity via nostalgia, $b_{\text{indirect}} = 0.12$, $SE = 0.04$, 95% CI_b [0.05, 0.20]. Taken together, the results of the serial-parallel mediation analysis were consistent with the idea that taking a historical perspective improves attitudes by increasing similarity toward opponents, due to both cognitive (abstraction) and affective (nostalgia) processes. See Figure 5.1B in the Main Manuscript.

5.5.3 Study 2

Participants and Design

In return for £1.40, 280 American online participants were approached via Prolific.com. Participants were presented with both experimental conditions manipulating the opponent's historical preference (past vs. present; within). We used G*Power (Faul et al., 2007) to set sample size to detect a small to medium effect size ($f = .10$) with 90% power and rounded up the calculated sample size ($N = 265$) to account for any data exclusion. Following our preregistration, five participants were excluded a priori because of self-reported inattention, resulting in a final sample of $N = 275$ ($M_{\text{age}} = 39.0$ years, $SD_{\text{age}} = 13.7$, 43.6% female, 53.1% male, 3.3% other). The study is preregistered at: https://aspredicted.org/8R6_Z1D.

Materials and Procedure

We used the same forced-choice question as in the former studies to identify participants' political outgroup and the same two item-index to measure political ideology and extremity ($r = .84$, $p < .001$). Next, participants read they would be paired to other Prolific users. To get to know their assigned partners, the participant was shown information about their partner's political ideas. In reality, these were scripted. Assigned partners always identified with the political outgroup of the participant. That is, Democrats believed they interacted with Republicans and vice versa. In the past focus condition, the assigned partner expressed a historical preference for the past values of their party, while in the present focus condition, the partner expressed a preference for today's values. We used a within-participants design and

therefore participants saw two statements (randomized order). We used two versions of each statement to ensure that participants never saw the same sentence structure twice. Verbatim instruction texts are provided in the materials section in the ResearchBox. Participants indicated their attitudes toward each interaction partner, between *Very negative* (1) and *Very positive* (7), and their trust, between *Not at all* (1) and *Very much* (7). As a third dependent variable, participants indicated four behavioral intentions (willingness to talk to, to discuss politics with, to have a drink with, to be friends with) each interaction partner, between *Not at all* (1) and *Very much* (7). The latter three dependent variables were also administered with a focus on participants' expectations about their partner (e.g., "How much do you think this participant would trust you?"). In addition, we measured participants' anticipated emotions (angry, annoyed, irritated, or outraged) when discussing politics with their assigned partner, on 7-point scales. Finally, we measured participants' perceived closeness, using the continuous Inclusion of Other in the Self (IOS) Scale (Beranek & Castillo, 2023).

Results

We again used hierarchical linear mixed-effects models to test the effects of condition, political extremity, and political self-identification on each of our dependent variables. Due to space constraints, we will only report the results for trust and expected trust here. Note that the results of the remaining dependent variables were all in line with our predictions and can be found in the output section of the ResearchBox.

In line with our predictions, we found a medium-to-large sized effect of the manipulation, $t(274) = 10.14, p < .001, d = 0.61, 95\% CI_d = [0.48, 0.74]$, meaning that participants trusted an opponent who prefers their party's past values more ($M = 3.60, SD = 1.65$) than an opponent who prefers their party's present values ($M = 2.55, SD = 1.45$). Using a linear mixed-effects model, we found that this effect of condition remained significant, $b = 1.05, SE = 0.10, t(544) = 10.14, p < .001, 95\% CI_b [0.85, 1.25]$, controlling for extremity, $b = -0.64, SE = 0.08, t(544) = -7.63, p < .001, 95\% CI_b [-0.81, -0.48]$, and participants' political

party identification, $b = 0.76$, $SE = 0.15$, $t(544) = 4.97$, $p < .001$, 95% CI_b [0.46, 1.07]. We also found a significant interaction of historical preference and political identity, $b = 0.81$, $SE = 0.23$, $t(540) = 3.45$, $p < .001$, 95% CI_b [0.35, 1.26], indicating that the increased trust in an interaction partner who identifies with the political outgroup's past is especially high among Republicans (although it is also significant for Democrats; see Figure 5.3A in the Main Manuscript). See Table S5.3 for the complete results of the hierarchical linear mixed-effects models. The same interaction was found for expected trust from the other person, $b = 0.62$, $SE = 0.21$, $t(539) = 2.89$, $p = .004$, 95% CI_b [0.20, 1.03], see Figure 5.3B in the Main Manuscript. When we replaced the dichotomous measure of ideology (Democratic party vs. Republican party) with the continuous one (7-point Likert scale) in our models, we found the same result pattern. The detailed results can be found in the outputs section in the ResearchBox (see also Figure S5.2).

Table S5.3

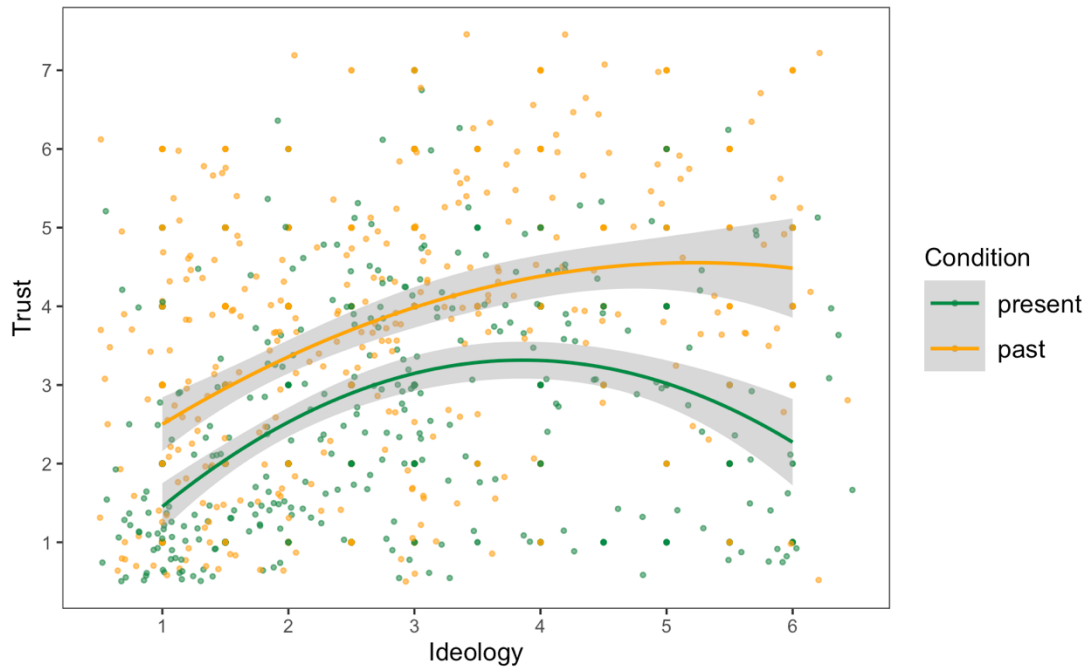
Regression results using perceived trustworthiness of the political opponent as the criterion in Study 2

Predictors	Step 1	Step 2	Step 3
(Intercept)	2.34***	2.34***	2.46***
Condition (1 = past, 0 = present)	1.05***	1.05***	0.84***
Extremity	-0.64***	-0.75***	-0.88***
Party identification (1 = Rep., 0 = Dem.)	0.76***	0.76***	0.42*
Condition × Extremity		0.22	0.23
Condition × Party Identification			0.81***
Extremity × Party Identification			0.36
Condition × Extremity × Party Identification			0.19
R^2	0.265	0.268	0.288
ΔR^2		0.003***	0.020***

Note. Table displays unstandardized regression weights. * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure S5.2

The interaction of condition and continuous political self-identification (on a 7-point scale) on trust toward the political opponent in Study 2



Note. Data are jittered to avoid over-plotting.

5.5.4 Study 3***Participants and Design***

In return for £0.70 and additional flexible compensation, 490 American online participants were approached via Prolific.com. Participants were assigned to one of two experimental conditions manipulating opponents' historical preference (past vs. present; between). We used G*Power (Faul et al., 2007) to set sample size to detect a small to medium effect size ($f = .15$) with 90% power and increased the calculated sample size ($N = 470$) to account for any data exclusion. Following our preregistration, four participants were excluded a priori because they did not pass the comprehension questions for the trust game, resulting in a final sample of $N = 486$ ($M_{\text{age}} = 40.0$ years, $SD_{\text{age}} = 13.6$, 41.8% female, 55.3% male, 2.5% other, 0.4% prefer not to say). The study is preregistered at: https://aspredicted.org/NBF_HFK.

Materials and Procedure

The procedure was similar to Study 2, except that we now used a between-participants design: Participants were assigned only one interaction partner (always an outgroup member) and were invited to play a continuous prisoner's dilemma (Dorrrough & Glöckner, 2016; Wahl & Nowak, 1999). To that end, participants received an initial endowment of \$1.00 that they could either keep or transfer to their partner. Before deciding, participants read one of the statements ostensibly made by their interaction partner. As in Study 2, the content of this statement depended on random assignment and either expressed a historical preference for the own party's past (past condition) or present values (present condition). The transferred amount of money (from 0 to 100 US cents) was our core dependent measure for cooperation. We also asked for participants' expectations regarding their partner's transfer to them (from 0 to 100 US cents). In addition, we calculated the difference between transfer and expectations as a proxy for condition-related social preferences (net-transfer = transfer – expectation). After reading the instructions, participants answered four comprehension questions.

Results

Transfer and Expected Transfer. We used hierarchical linear regression models to test the effects of condition, political extremity, and political self-identification on each of our dependent variables. For reasons of space, we will only report the results for transfer and expectations here. The results for net-transfer can be found in the outputs section in the ResearchBox.

In line with our predictions, we found a small-to-medium sized difference of condition on the shared amount of money $t(483.89) = 2.99, p = .003, d = 0.27, 95\% CI_d = [0.09, 0.45]$. As expected, participants assigned to a partner who expressed a preference for past values shared more ($M = 46.34, SD = 37.79$) than participants assigned to a partner who expressed a preference for today's values ($M = 36.08, SD = 28.36$). Using a linear regression model, we found that this effect remained significant, $b = 10.51, SE = 3.45, t(482) = 3.05, p = .002, 95\%$

CI_b [3.74, 17.28], when controlling for extremity and party identification, which were both not significant predictors, all p s > .062. Again, we found a significant interaction of condition and political identity, $b = 22.61$, $SE = 8.50$, $t(478) = 2.66$, $p = .008$, 95% CI_b [5.90, 39.32], showing that this effect of the manipulation is especially strong among participants who self-identify as Republican (see Figure 5.3A in the Main Manuscript and Table S5.4). We also found a small-to-medium sized difference between the expected transfer from the opponent with a preference for their party's past values ($M = 36.58$, $SD = 35.04$) and expected transfer to the opponent with a preference for their party's present values ($M = 25.23$, $SD = 32.74$), $t(481.80) = 3.69$, $p < .001$, $d = 0.34$, 95% CI_d = [0.16, 0.52]. In line with this, our regression model showed a significant effect of condition, $b = 11.64$, $SE = 3.03$, $t(482) = 3.85$, $p < .001$, 95% CI_b [5.70, 17.58]. We also found a significant effect of extremity, $b = -6.99$, $SE = 3.45$, $t(482) = -3.48$, $p = .001$, 95% CI_b [-10.94, -3.05], but no other effects in any of the more complex models. See Figure 5.3B in the Main Manuscript. The detailed results using the continuous measure of ideology (7-point Likert scale) can be found in the outputs section in the ResearchBox (see also Figure S5.3).

Mediation. We tested whether trust toward the opponent and expected trust from the opponent mediate the relation between a historical preference and increased cooperation using Model 4 of the PROCESS macro for R with 5,000 Bootstrap samples (Hayes, 2013). In line with the findings from Study 2, participants showed higher trust toward an opponent who expressed a historical preference for their own party's past (a-path of the mediation model), $b = 0.81$, $SE = .14$, $t(484) = 5.76$, $p < .0001$, 95% CI_b [0.54, 1.09], and also expected more trust from this opponent, $b = 0.68$, $SE = .14$, $t(484) = 4.89$, $p < .0001$, 95% CI_b [0.41, 0.95]. Consistent with our predictions, we found that increased trust fully mediated the higher cooperation toward this opponent with a historical preference for the party's past, $b_{\text{indirect}} = 9.10$, $SE = 1.77$, 95% CI_b [5.78, 12.76], and that more expected trust from this opponent fully mediated the higher expected cooperation, $b_{\text{indirect}} = 7.28$, $SE = 1.70$, 95% CI_b [3.99, 10.72].

Table S5.4

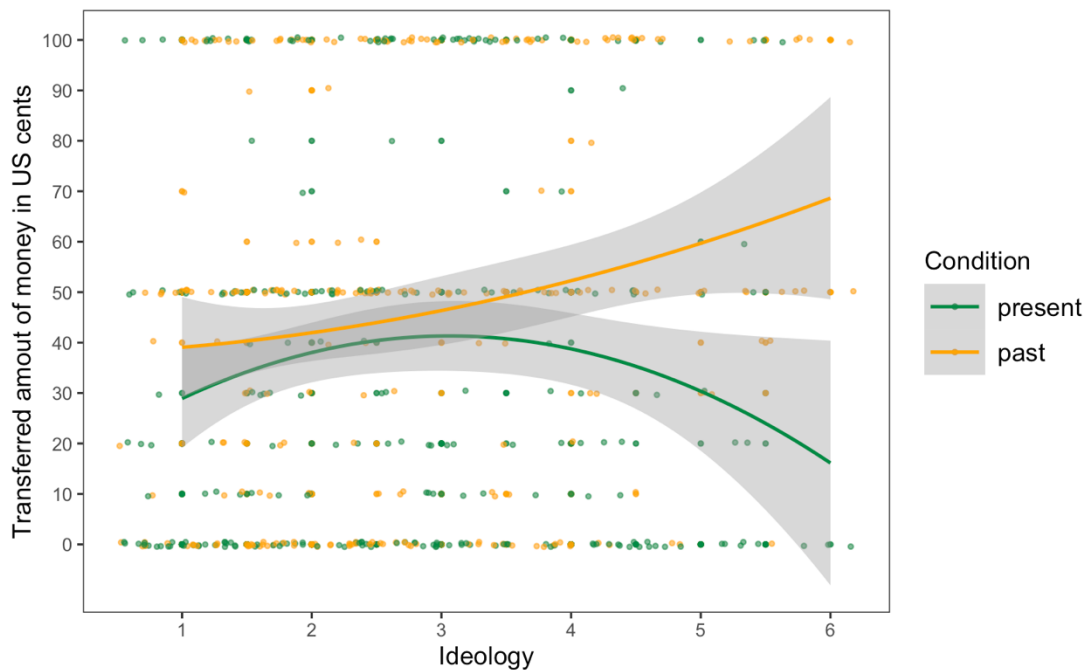
Regression results using transfer to the political opponent as the criterion in Study 3

Predictors	Step 1	Step 2	Step 3
(Intercept)	35.27***	35.23***	38.12***
Condition (1 = past, 0 = present)	10.51**	10.51**	5.06
Extremity	-4.28	-5.96	-8.04*
Party identification (1 = Rep., 0 = Dem.)	2.43	2.41	-7.78
Condition × Extremity		3.56	4.63
Condition × Party Identification			22.61**
Extremity × Party Identification			2.49
Condition × Extremity × Party Identification			7.88
R^2	0.028	0.029	0.047
ΔR^2		0.001	0.018*

Note. Table displays unstandardized regression weights. * $p < .05$, ** $p < .01$, *** $p < .001$.

Figure S5.3

The interaction of condition and continuous political self-identification (on a 7-point scale) on monetary transfer to the political opponent in Study 3



Note. Data are jittered to avoid over-plotting.

Chapter 6: General Discussion

The political divide between liberals and conservatives poses a significant challenge to society. It prevents progress on important issues that require bipartisan cooperation, thus hindering effective governance and increasing hostility toward the political outgroup. Addressing this divide is therefore crucial to foster a more united society with productive political engagement. In the present dissertation, I contribute to the growing body of knowledge on explaining and bridging ideological divides by investigating the significance of the past and the potential of past-focused communication. As I described in Chapter 1, previous approaches from psychology and political science already include indications for the role of the past in shaping conservative political preferences. Consistent with this notion, an extensive line of research links political conservatism to nostalgic feelings for past societies. However, research shows that nostalgia can also be attractive to liberals. This suggests an advantage of past-focused communication over other types of communication, as it may appeal to partisans across the political spectrum. In Chapter 2, I explored the effectiveness of past-focused framing in reducing the ideological gap in COVID-19 responses. Although the effect was small, framing protective health measures as a return to the past (rather than a transition to a new future) significantly reduced conservatives' opposition. As I showed in Chapter 3, conservatives' preference for the past and for past-focused political communication is partly rooted in their epistemic and existential motives, which integrates the existing literature on conservatism as motivated social cognition (Jost et al., 2003a) into the approach. Chapter 4 highlights the unique potential of past-focused framing to bridge ideological divides by presenting research that shows the limited effectiveness of epistemic framing in this context. While temporal framing was independent of the messenger's party affiliation and increased support among conservatives (leaving liberals largely unaffected), epistemic framing was endorsed by conservatives only if they expected the messenger to be a Republican. Moreover, liberals' support decreased when the policy was framed in terms of epistemic needs,

underscoring the limited effectiveness of epistemic framing compared to temporal framing. Finally, as shown in Chapter 5, reflecting on the past in a political context can not only reduce resistance among conservatives but can also reduce outgroup hostility across political lines by increasing mutual liking, trust, and cooperation. Taken together, the findings presented in this dissertation provide converging evidence of the significant role of the past and the potential of past-focused communication in shaping and bridging ideological differences.

6.1 Theoretical and Practical Implications

Until now, research has given little attention to the question of how temporal orientations shape political thought. This is striking, given that politics and time are inherently interconnected, as evidenced by references to the past in various political psychological approaches to ideology (see Chapter 1). This dissertation identifies differences in temporal orientation, specifically conservatives' orientation toward the past, as a higher-order phenomenon that can explain earlier findings about differences in political thought. The presented research shows how such abstract and higher-order aspects of conservatism, found in political philosophy dating back more than two centuries ago, can be related to various political psychological approaches to ideology, underscoring the integrative potential of this research.

The present work combines three lines of research on ideological differences: Bottom-up approaches, top-down approaches, and research on nostalgia. It highlights the importance of thinking beyond each of these literatures and presents the past as a potentially unifying aspect. Combining insights and methods from research on bottom-up and top-down factors of political ideology allows to examine these aspects in novel ways. Whereas most research on the relationship between psychological needs and conservatism is correlational, this work uses experimental approaches to test its assumptions. Manipulating epistemic and existential beliefs about the past (Chapter 2) and the epistemic focus of policies (Chapter 3) facilitates the investigation of causal relations. This contributes to the ongoing controversial discussions about the relation between conservatism and epistemic and existential needs. While some

researchers argue that conservatives have stronger needs for certainty and security, others find no evidence for this relation (see Kosloff et al., 2016; Zmigrod, 2020). While the studies in this dissertation also include mixed findings regarding the correlation between conservatism and epistemic needs using standard measures (i.e., the Need for Closure Scale, Roets & Van Hiel, 2011; see Chapter 4), conservatives' desire for epistemic certainty and existential security appears strongly in the context of past-focused versus future-focused political communication (see Chapter 3). This suggests that epistemic and existential motives play a role in conservative ideology when partisans are reminded of the fundamental desire to return to the past. One reason for this could be that the political context (in this case: a politician talking about their political goals) must be activated to detect the relevance of those motives for conservatives, or more specifically, that there must be a context in which the individuals' political identity is salient. This is consistent with research showing that partisan cues strengthen the relation between epistemic and existential needs and conservatism (Johnston et al., 2017).

The presented research provides further relevant insights into research on framing, particularly on temporal framing. The studies suggest that when temporal framing is used, the sender's political affiliation may be a relevant factor determining the effect. As demonstrated in Chapter 2, past-focused communication reduced conservatives' opposition the most when participants assumed the messenger was conservative, and the overall effect of political affiliation of the messenger was larger than the temporal framing effect. Chapter 4 even found that other types of framing (here: epistemic framing) are exclusively effective under the assumption that conservative-typical communication was used by a Republican politician. A reason for this may be that participants had been socialized to learn the association between conservative ideology and specific language usage, for instance more past-focused references. Therefore, participants may perceive a politician who uses past-focused language to be more conservative. The effectiveness of past-focused references for conservatives may be driven by an aligned image of the messenger and communicated political ideas. This is also in line with

recent work on temporal framing demonstrating that the combination of past-focused framing and conservative party affiliation causes more conservative perceptions of the speaker (Herberz et al., 2023). However, this research and also Chapter 2 show that temporal framing and party affiliation can independently increase conservatives' policy support, and that temporal framing does not reduce liberals' support. Therefore, temporal framing can be considered as an effective tool to decrease the ideological gap concerning specific political topics, even though it seems to be especially effective when it is used by conservative messengers.

Finally, the present work contributes to research on nostalgia and extends previous knowledge about this sentiment. For instance, literature about collective nostalgia usually connects it to greater solidarity with the ingroup and more hostility toward outgroups (e.g., Smeekes & Verkuyten, 2015; Wildschut et al., 2014). The present research shows that evoking nostalgic thoughts can also be an effective way to reduce outgroup hostility, as shown in Chapter 5. The findings reported in this chapter provide evidence for the potential of nostalgic thinking about the collective past in highlighting similarities (rather than differences) between opposing groups, and therefore inducing more positive (rather than negative) outgroup-attitudes. This is also in line with recent approaches that discuss the potential of nostalgic intergroup contact to reduce prejudice (see Turner & Stathi, 2023).

The presented findings also have applied implications, as they suggest an alternative way to communicate political issues more effectively across party lines. This can be especially helpful when discussing important but divisive topics such as global pandemics or climate change. Understanding how ideological differences in temporal orientation shape the disagreement on these topics can suggest ways to find greater consensus. These insights allow the presentation of these topics in recipient-matched ways that minimize opposition and instead facilitate pragmatic cooperation across party lines (see Teeny et al., 2020). Moreover, the present research tests this approach on various levels of political polarization: The perception of the political elite (Chapters 2 and 3), the support for specific policies (Chapters 2 and 4), and

the perception of other citizens (Chapters 2 and 5). This shows the significance of the past for different dimensions of political divisions and suggests various contexts of usage.

In fact, right-wing parties and politicians already make use of references to the past to evoke the people's nostalgic longing for the cherished past to spread their political positions (Menke & Wulf, 2021). One example of real-world evidence for the appeal that past-focused framing can have is the political communication during the 2016 European Union membership referendum (also: Brexit referendum) in the United Kingdom. During the Brexit campaign, there were two camps: one advocating for leaving the EU and the other for remaining in the EU. Although the Leave-camp was not exclusively supported by right-wing politicians, it used a nostalgic rhetoric that is often linked to right-wing populist communication strategies (Ahmed, 2017). Campaign organizations within this camp actively used past-focused communication and appealed to people's nostalgia. The outcome of the Brexit vote is therefore often interpreted as partly resulting from the nostalgic reverie that was evoked by the Leave-camp, as it gave "voters an option to go back to the past, rather than the future" (Green, 2016). Using slogans like "We want our country back" or "Let's take back control", the Leave-camp referred to the collective past, thereby activating people's collective nostalgia and motives of certainty and order. The Remain-camp, on the other hand, did not use any temporal references in their slogans (e.g., "Yes to Europe") and rarely appealed to any psychological motive of political ideology. Although only anecdotic, the success of the Leave-camp during the Brexit referendum can be considered as an example for a successful activation of past-related thoughts in political communication.

6.2 Limitations and Open Questions

Although the present work provides important theoretical and empirical contributions, there are certain limitations to be considered when interpreting the findings. In the following section, I will discuss some limitations and further considerations that require a closer examination in future research.

6.2.1 Conceptualization of Ideology

One limitation of the present approach is that it is mainly built upon models that are centered around political conservatism. Although this work is aimed at understanding the ideological divide between liberals and conservatives, it derives many of its assumptions from research that focuses on conservatism (e.g., the conservatism as motivated social cognition approach; Jost et al., 2003a). Consequently, this may create the impression of a conceptual framework that defines ideology as ranging from low to high conservatism. Therefore, it is important to clarify that this work does not conflate political ideology with political conservatism. Just like conservative ideology, liberal ideology is characterized by a spectrum of values and aspirations that are inherently different from conservatism and that extend beyond mere variations in epistemic or existential needs (i.e., lower needs for certainty and security). Liberalism has its own historical roots and comprises diverse ideological dimensions that must be considered when seeking to comprehend ideological differences (see Proulx et al., 2023). Furthermore, a focus on conservatism in the investigation of the political divide may wrongly suggest that conservatives bear sole responsibility, implying that research should concentrate on how to change conservatives' (rather than liberals') attitudes to address societal challenges. Especially in the field of social psychology, where a strong prevalence of ideologically liberal researchers exists (Duarte et al., 2015), it is crucial to recognize the potential risk of conducting liberally biased research and of pathologizing tendencies associated with conservatism (Lammers & Inbar, 2012; Honeycutt & Freberg, 2017; Redding, 2023). Moreover, another body of research suggests that it is not the direction of ideology but its extremity that exacerbates ideological tensions, since many psychological processes associated with perceived and actual political polarization are similar on both ends of the spectrum (e.g., Graham et al., 2012; Westfall et al., 2015; Woitzel & Koch, 2022). Therefore, it is crucial to investigate both conservative and liberal ideologies in political psychological

research to gain a comprehensive understanding of the ideological divide and to develop strategies for its reduction.

Nonetheless, the rationale for focusing on conservatism in this dissertation is well-grounded, due to its emphasis on the role of the past in shaping conservative perspectives. As references to the past predominantly appear in approaches to political conservatism, and conservatism is generally associated with the desire to “conserve” the past, this focus is appropriate for this dissertation and provides one way among several to address the ideological divide. However, this dissertation also posits the idea that the past can be meaningful for liberals and can reduce animosity on the liberal side of the political spectrum, too. It would thus be relevant to investigate which associations liberals have with the past or how they construe the past. To do so, the methodologies employed in this research could be adopted to test underlying *liberal* motives in the framework of a framing approach. Furthermore, the same methods could be extended to examine liberals’ perception of the future (as juxtaposed with conservatives’ perceptions). Although previous studies (e.g., Lammers & Baldwin, 2018) and the present work (Chapters 2 and 3) suggest that the future does not hold an equivalent level of importance for liberals as the past does for conservatives, none of these investigations have explicitly focused on the future or liberalism. In fact, there is research that connects liberal ideology to temporal orientations toward the future: Compared to conservatives, liberals are more likely to use future-focused language (Robinson et al., 2015), to consider future consequences (Večkalov et al., 2021), and to conceptualize the future as spatially in front of them (Li & Cao, 2022). Together, this suggests that extending the research focus from conservatism and the past to liberalism and the future may provide broader insights into temporal orientations in political ideology.

Another limitation of the current work is that political ideology was investigated using a one-dimensional liberal/conservative measurement in all studies. The decision to use this established classification was based on its demonstrated effectiveness in Western societies,

where the meaning of these terms is commonly known and shared (Jost, 2006). However, there is reasonable critique to using this simple conceptualization of ideology. Increasing evidence suggests that the one-dimensional measurement does not capture the complexity of political ideology. In fact, a large body of research has proposed at least two conceptually distinct value dimensions of ideology that are related to distinct underlying psychological processes (e.g., Costello & Lilienfeld, 2021; Duckitt & Sibley, 2009, 2010; Johnston & Ollerenshaw, 2020). Those value dimensions correspond to (a) preferences for equality versus inequality and (b) preferences for tradition versus openness to change (see Federico, 2022). In line with this distinction, one prominent bidimensional approach describes political ideology along a social dimension, including issues of traditional morality and cultural norms, and an economic dimension, concerning issues of redistribution and regulations (Duckitt & Sibley, 2010; Feldman & Johnston, 2014; Johnston & Ollerenshaw, 2020). According to this distinction, social conservatism is characterized by a preference for traditional values and norms that relate to negative attitudes about abortion, immigration, and LGBTQ+ rights. Economic conservatism, on the other hand, relates to preferences for limited economic government interventions, lower taxes, and free-market principles. Even though these two dimensions are strongly related in Western countries like the US (Malka et al., 2014), they are distinct in their content and are not related to the same personality variables or cognitive styles (e.g., Costello et al., 2023). Since the present work only uses a one-dimensional measurement of ideology, it does not allow for a distinction between social and economic influences.

Research on bidimensional classifications of ideology suggests that the assumptions and findings regarding conservatives' orientation toward the past may be driven by the social dimension of conservatism. As this dimension includes preferences for cultural traditions, established social norms, family structures, and religious practices, it strongly represents a preference for the past (see Duckitt & Sibley, 2010; Johnston & Ollerenshaw, 2020). Moreover, social conservatism was found to be consistently related to epistemic and existential needs for

certainty and safety (e.g., Van Hiel et al., 2016), which are central in conservatives' preference for the past (see Chapter 3). Evidence for the relation of those needs with economic conservatism, on the other hand, is more inconsistent with frequent null and even reversed findings (e.g., Van Hiel et al., 2004; Feldman & Johnston, 2014). A recent meta-analysis by Costello and colleagues (2023) supported this pattern and showed that measures of rigidity, one type of epistemic needs, were robustly connected to social conservatism only, whereas their relation to economic conservatism was inconsistent. These findings suggest that conservatives' attachment to the past likely stems from the social dimension of conservatism. Future research should test this in more detail by differentiating between the influences of social and economic conservatism.

Since in the US and the UK, economic and social ideology are positively correlated with each other and strongly correlate with ideological self-placements on the one-dimensional scale (Azevedo et al., 2019; Feldman & Johnston, 2014), it seems reasonable to omit this distinction for the investigation of Western nations. However, moving beyond individuals in Western, educated, industrialized, rich, democratic (WEIRD; Henrich et al., 2010) societies, the correlation between social and economic conservatism is less clear. For instance, a recent investigation of political ideology in China found lower levels of such ideological constraint and even suggests a different, three-dimensional model of ideology (Pan & Xu, 2018). Taking a more global look and including representative samples from developing, non-Western nations, researchers found not only that positive correlations between cultural and economic conservatism are unusual, but also that social conservatism is often related to economic liberalism (Malka et al., 2014; Malka et al., 2019). Investigating the proposed effects with a single left-right dimension in non-WEIRD nations would therefore ignore important variance in political ideology, questioning the generalizability of the research methods used in the present work. Future research on ideology and temporal preferences in non-Western nations should therefore rely on multidimensional approaches to political ideology.

6.2.2 Sampling

Taking up on the former argument, another limitation of the present research is that all studies in this dissertation investigate Western societies, mainly focusing on the US. Besides the inconsistent conceptualizations of social and economic conservatism in non-Western countries, cross-national comparisons have also shown that the relation between ideological self-placement and psychological needs and motives are not consistent across countries. For instance, one cross-national analysis found that epistemic and existential needs for security and certainty are only related to a conservative ideological self-identification in relatively developed and non-Eastern nations (Malka et al., 2014). In line with this, tested meta-analytically, the relation of conservative ideology and rigidity was strongly reduced in non-Western nations (Costello et al., 2023). Therefore, although the present work relates conservatism to a focus on the past in Western countries (i.e., the US, the UK, and Germany), it does not allow any conclusion about this relation in other countries.

Furthermore, it must be noted that “the past” (i.e., the national history) differs between nations. Most Western societies have become less conservative and more liberal and individualistic over time (Lammers & Uğurlar, 2023). Societies from the past may therefore simply fit better with conservative preferences than present societies. However, this is not necessarily the case in societies which have a different history and have become more conservative over time. Lammers and Uğurlar (2023) tested whether a desire to return to the past is limited to Western conservatives by comparing liberals and conservatives from the US with the same groups from Turkey. Using archival data from both countries, they demonstrated differences in historical trajectories: While the US has continuously become more liberal, Turkey is turning back to a more conservative course. To test whether these differences in historical development are related to differences in feelings toward the past, the researchers compared the relation of ideology and collective nostalgia between the two countries. In line with the theorizing in this dissertation, they found a positive relation between conservatism and

collective nostalgia in the US. However, in Turkey, this relation was not found. This difference between nations was mediated by feelings of cultural pessimism: Whereas conservatives in the US believe that society is getting worse, this is not the case for conservatives in Turkey. The authors also tested preferences for past- over future-focused temporal framing in political communication, using the same manipulation as I developed in Chapter 3. They replicated the finding that in the US, conservatives prefer past-focused over future-focused communication. In Turkey, this relation was still significant but strongly reduced: Although the direct effect of conservatism on preference for past-focused frames was positive in both countries, the indirect effect through cultural pessimism was positive in the US and negative in Turkey, which accounts for the weaker total effect in Turkey. These findings underline the importance of investigating societies that are different from the US, for instance concerning their historical development. Although the relation between conservatism and a focus on the past was also found in other countries with a different history (see also Li & Cao, 2022), Lammers and Uğurlar (2023) identified cultural pessimism, which depends on a nation's history, as an attenuating factor. Future research should therefore investigate other global or nation-specific factors that affect the strength of the relation.

6.2.3 Potential Moderators

Although the present research supports the idea that the past plays an important role in ideological differences and that past-focused communication can help bridge the divide, it does not answer the question why temporal framing has a large effect in some studies (e.g., Baldwin & Lammers, 2016; Clark & Adams, 2023; Lammers & Baldwin, 2018) while the effect is weaker in other studies (e.g., Chapter 2) or does not replicate at all (Kim et al., 2021; Stanley et al., 2021). Those inconsistencies regarding temporal framing suggest that there might be other factors that influence the effect. For instance, Herbertz and colleagues (2023) suggested the presence (vs. absence) of political elite cues as a moderator. They found that framing climate change policies with a focus on the past reduced opposition among conservatives when the

messenger's party affiliation was made explicit (Study 3), whereas it was not effective without any political elite cue (Study 1). This is in line with the results in Chapter 2 (Study 5), where past-focused framing descriptively reduced conservatives' opposition in the presence of partisan cues. However, none of those studies tested the presence (vs. absence) of political elite cues within one study, which is why future research should focus on this.

Besides such situational moderators, the present work suggests a relevance of the specific topic that temporal framing is applied to. The effectiveness of temporal framing was demonstrated for various topics like climate change (Baldwin & Lammers, 2016; Herberz et al., 2023), gun control, immigration, criminal justice, social diversity (Lammers & Baldwin, 2018), and pandemics (Chapter 2). These topics differ on various dimensions, such as personal relevance. Chapter 2 found a weaker temporal framing effect in the context of the COVID-19 pandemic, which was, at the point of the studies, highly relevant for people's everyday lives. It is therefore possible that if a topic is highly relevant for people, they process a political message more thoroughly, which makes temporal framing effects less likely to occur. In line with this idea, Lammers and Baldwin (2018) found that temporal framing influences political attitudes only under peripheral but not under central information processing, suggesting that the depth of processing (which may be higher when the topic is highly relevant) influences the effect. Another potential factor that is suggested by the findings from Chapter 2 is how long debates about the topics have existed and how entrenched they are in society. Whereas topics like climate change or social diversity have been discussed for decades, the COVID-19 pandemic is a relatively new topic. Finally, related to the findings from Chapter 3 and the model by Jost and colleagues (2003a), another relevant factor could be how strongly the topic is related to epistemic and existential needs for certainty and security. Some topics may, for instance, be perceived as more threatening than others, which may strengthen partisans' desire to return to a more certain past. Those potential moderators could be tested meta-analytically, including all studies that have tested past-focused temporal framing to this date.

6.3 Meta-Applications

Besides focusing on specific limitations, boundary conditions or amplifiers of the detected effects in this work, it is also essential to consider the findings' applicability in broader settings. In addition to political divides between conservatives and liberals, there are several other social groups that have ingrained beliefs and identities that lead to tension and challenges in society. For instance, one issue that can be considered in this context is religion. Different religious communities often hold distinct beliefs and practices, which can lead to severe divides and animosities. Examples include the historically grown tensions between Muslims and Hindus in India or Jews and Muslims in the Middle East. Moreover, religious polarization resulting from tensions between the religious and the secular affects democratic elections in the US and across the world (Makowsky, 2011). Although the present work examines the role of the past for political divides between conservatives and liberals, it is worthwhile to think about its generalization to the religious context. For instance, there is reason to believe that people who are attached to religious beliefs may also value the past. Religions have usually emerged from the past and defend long-standing traditions. In line with this, people who hold religious beliefs tend to value traditionalism and the maintenance of the current status quo (Jost et al., 2014). Moreover, religiosity is strongly related to a resistance to change (Van der Toorn et al., 2017), thus suggesting that the past may play a significant role in the context of religion as well. Further, research suggests that religion is, like conservatism, related to epistemic and existential motivations. Religious beliefs have been shown to reduce uncertainty (Barber, 2011) and are linked to higher epistemic needs for closed-mindedness, order, predictability, and to lower openness to new experiences (Brandt & Reyna, 2010; Saroglou, 2002a, 2002b). Moreover, religious beliefs are encouraged by the existence of existential threat (Vail et al., 2010; for a review see Jost et al., 2014). Finally, being religious is also associated with being more conservative, as religiosity, alongside with traditionalism, is considered as one facet of conservatism (see Koch et al., 2016; see also Jost et al., 2014).

Together, these findings suggest that religious individuals may also find fulfillment in the past, and that focusing on it may help reduce religious tensions. For instance, a nostalgic recollection of the past could remind divided religious groups of their common history and shared core values. More broadly speaking, the insights about temporal orientations gained through the present work may be extended and applied beyond the specific political context in which they were initially observed. Considering the role of the past in other contexts is essential for building a robust and comprehensive understanding of the psychology behind the detected effects in this work. This could be an essential step in bridging divides that emerge from various societal tensions and promoting more cohesive and inclusive interactions.

6.4 Conclusion

Focusing on a previously unattended aspect of ideological divergence, this dissertation contributes to the existing literature about ideological divides by examining the role of the past in political preferences. It moves back in time and focuses on the initial aspiration of conservative ideology, showing that many proposed differences between conservatives and liberals can be traced back to conservatives' respect for the past. By combining different, sometimes contrasting approaches, it helps gain a deeper understanding of how ideological differences emerge and how they can be addressed. Furthermore, by examining theoretical foundations and practical implications of past-focused political communication, this dissertation provides tools to foster a more understanding and empathetic political discourse that transcends the barriers erected by polarization. Even though past-focused communication is especially effective in reducing conservatives' rejection of opposing partisans and ideas, it can also mitigate political animosity on the liberal side. Together, by leveraging the power of the past, we may find a path toward a more unified and resilient democratic society, where diverse perspectives are respected, and political discourse becomes a catalyst for progress rather than division.

References

- Abramowitz, A. I., & Saunders, K. L. (2008). Is polarization a myth? *The Journal of Politics*, 70(2), 542–555. <https://doi.org/10.1017/S0022381608080493>
- Adolph, C., Amano, K., Bang-Jensen, B., Fullman, N., & Wilkerson, J. (2021). Pandemic politics: Timing state-level social distancing responses to COVID-19. *Journal of Health Politics, Policy and Law*, 46(2), 211–233. <https://doi.org/10.1215/03616878-8802162>
- Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sanford, R. (1950). *The authoritarian personality*. Harpers.
- Ahmed, R. (2017). Brexit: The mainstreaming of right-wing populist discourse. In IFSH (Ed.), *OSCE Yearbook 2016* (pp. 93–105). Nomos.
- Alves, H., Koch, A., & Unkelbach, C. (2017). The “common good” phenomenon: Why similarities are positive and differences are negative. *Journal of Experimental Psychology: General*, 146(4), 512–528. <https://doi.org/10.1037/xge0000276>
- Arbuckle, J. L. (2020). Amos (Version 27.0) [Computer Program]. IBM SPSS.
- Axelrod, R., Daymude, J. J., & Forrest, S. (2021). Preventing extreme polarization of political attitudes. *Proceedings of the National Academy of Sciences*, 118(50), e2102139118. <https://doi.org/10.1073/pnas.2102139118>
- Azevedo, F., Jost, J. T., Rothmund, T., & Sterling, J. (2019). Neoliberal ideology and the justification of inequality in capitalist societies: Why social and economic dimensions of ideology are intertwined. *Journal of Social Issues*, 75(1), 49–88. <https://doi.org/10.1111/josi.12310>
- Bail, C. A., Argyle, L. P., Brown, T. W., Bumpus, J. P., Chen, H., Hunzaker, M. F., ... & Volfovsky, A. (2018). Exposure to opposing views on social media can increase political polarization. *Proceedings of the National Academy of Sciences*, 115(37), 9216–9221. <https://doi.org/10.1073/pnas.1804840115>

-
- Bakker, B. N. (2017). Personality traits, income, and economic ideology. *Political Psychology*, 38(6), 1025–1041. <https://doi.org/10.1111/pops.12349>
- Bakker, B. N., Lelkes, Y., & Malka, A. (2020). Understanding partisan cue receptivity: Tests of predictions from the bounded rationality and expressive utility perspectives. *The Journal of Politics*, 82(3), 1061–1077. <https://doi.org/10.1086/707616>
- Baldassarri, D., & Page, S. E. (2021). The emergence and perils of polarization. *Proceedings of the National Academy of Sciences*, 118(50), e2116863118. <https://doi.org/10.1073/pnas.2116863118>
- Baldwin, M., & Lammers, J. (2016). Past-focused environmental comparisons promote proenvironmental outcomes for conservatives. *Proceedings of the National Academy of Sciences*, 113(52), 14953–14957. <https://doi.org/10.1073/pnas.1610834113>
- Baldwin, M., White, M. H., & Sullivan, D. (2018). Nostalgia for America’s past can buffer collective guilt. *European Journal of Social Psychology*, 48(4), 433–446. <https://doi.org/10.1002/ejsp.2348>
- Baliotti, S., Getoor, L., Goldstein, D. G., & Watts, D. J. (2021). Reducing opinion polarization: Effects of exposure to similar people with differing political views. *Proceedings of the National Academy of Sciences*, 118(52), e2112552118. <https://doi.org/10.1073/pnas.2112552118>
- Ball, T., & Bellamy, R. (Eds.). (2003). *The Cambridge history of twentieth-century political thought* (1st ed.). Cambridge University Press. <https://doi.org/10.1017/CHOL9780521563543>
- Barber, M., & Pope, J. C. (2019). Does party Trump ideology? Disentangling party and ideology in America. *The American Political Science Review*, 113(1), 38–54. <https://doi.org/10.1017/S0003055418000795>

- Barsalou, L. W. (1985). Ideals, central tendency, and frequency of instantiation as determinants of graded structure in categories. *Journal of Experimental Psychology: Learning, Memory, and Cognition*, *11*(4), 629–654. <https://doi.org/10.1037//0278-7393.11.1-4.629>
- Bates, D., Mächler, M., Bolker, B., & Walker, S. (2015). Fitting linear mixed-effects models using lme4. *Journal of Statistical Software*, *67*(1), 1–48. <https://doi.org/10.18637/jss.v067.i01>
- Baumeister, R. (2005). Rejected and alone. *The Psychologist*, *18*, 732–735.
- Behler, A. M. C., Cairo, A., Green, J. D., & Hall, C. (2021). Making America great again? National nostalgia's effect on outgroup perceptions. *Frontiers in Psychology*, *12*, 555667. <https://doi.org/10.3389/fpsyg.2021.555667>
- Bennett, O. (2019). *Cultural pessimism: Narratives of decline in the postmodern world*. Edinburgh University Press.
- Benoit, W. L. (2001). Framing through temporal metaphor: The “bridges” of Bob Dole and Bill Clinton in their 1996 acceptance addresses. *Communication Studies*, *52*(1), 70–84. <https://doi.org/10.1080/10510970109388541>
- Beranek, B., & Castillo, G. (2023). *Continuous Inclusion of Other in the Self*. [Working Paper]. <https://hal.science/hal-03901219v2>
- Berinsky, A. J., Huber, G. A., & Lenz, G. S. (2012). Evaluating online labor markets for experimental research: Amazon.com’s Mechanical Turk. *Political Analysis*, *20*(3), 351–368. <https://doi.org/10.1093/pan/mpr057>
- Biden, J. (2022). *Remarks by President Biden on the continued battle for the soul of the nation*. The White House. <https://www.whitehouse.gov/briefing-room/speeches-remarks/2022/09/01/remarks-by-president-bidenon-the-continued-battle-for-the-soul-of-the-nation/>
- Bonanno, G. A., & Jost, J. T. (2006). Conservative shift among high-exposure survivors of the September 11th terrorist attacks. *Basic and Applied Social Psychology*, *28*(4), 311–323.

https://doi.org/10.1207/s15324834basp2804_4

Brandt, M. J., & Reyna, C. (2010). The role of prejudice and the need for closure in religious fundamentalism. *Personality and Social Psychology Bulletin*, *36*(5), 715–725.

<https://doi.org/10.1177/0146167210366306>

Brownstein, R. (2010). GOP gives climate science a cold shoulder. *National Journal*, *42*(41), 52.

Buhrmester, M., Kwang, T., & Gosling, S. D. (2011). Amazon's Mechanical Turk: A new source of inexpensive, yet high-quality, data? *Perspectives on Psychological Science*, *6*(1), 3–5. <https://doi.org/10.1177/1745691610393980>

Burke, B. L., Kosloff, S., & Landau, M. J. (2013). Death goes to the polls: A meta-analysis of mortality salience effects on political attitudes. *Political Psychology*, *34*(2), 183–200. <https://doi.org/10.1111/pops.12005>

Burke, E. (1790). *Reflections on the Revolution in France: And on the Proceedings in Certain Societies in London Relative to that Event.: In a Letter Intended to Have Been Sent to a Gentleman in Paris*. J. Dodsley.

Cacioppo, J. T., Petty, R. E., Feinstein, J. A., & Jarvis, W. B. G. (1996). Dispositional differences in cognitive motivation: The life and times of individuals varying in need for cognition. *Psychological Bulletin*, *119*(2), 197–253. <https://doi.org/10.1037/0033-2909.119.2.197>

Callaghan, T., Moghtaderi, A., Lueck, J. A., Hotez, P., Strych, U., Dor, A., Fowler, E. F., & Motta, M. (2021). Correlates and disparities of intention to vaccinate against COVID-19. *Social Science & Medicine*, *272*, 113638. <https://doi.org/10.1016/j.socscimed.2020.113638>

Calvillo, D. P., Ross, B. J., Garcia, R. J. B., Smelter, T. J., & Rutchick, A. M. (2020). Political ideology predicts perceptions of the threat of COVID-19 (and susceptibility to fake

- news about it). *Social Psychological and Personality Science*, *11*(8), 1119–1128.
<https://doi.org/10.1177/1948550620940539>
- Campbell, T. H., & Kay, A. C. (2014). Solution aversion: On the relation between ideology and motivated disbelief. *Journal of Personality and Social Psychology*, *107*(5), 809–824.
<http://dx.doi.org/10.1037/a0037963>
- Caprara, G. V., Schwartz, S., Capanna, C., Vecchione, M., & Barbaranelli, C. (2006). Personality and politics: Values, traits, and political choice. *Political Psychology*, *27*(1), 1–28. <https://doi.org/10.1111/j.1467-9221.2006.00447.x>
- Caprara, G. V., & Zimbardo, P. G. (2004). Personalizing politics: A congruency model of political preference. *American Psychologist*, *59*(7), 581–594.
<https://doi.org/10.1037/0003-066X.59.7.581>
- Carney, D. R., Jost, J. T., Gosling, S. D., & Potter, J. (2008). The secret lives of liberals and conservatives: Personality profiles, interaction styles, and the things they leave behind. *Political Psychology*, *29*(6), 807–840. <https://doi.org/10.1111/j.1467-9221.2008.00668.x>
- Chandler, J., Rosenzweig, C., Moss, A. J., Robinson, J., & Litman, L. (2019). Online panels in social science research: Expanding sampling methods beyond Mechanical Turk. *Behavior Research Methods*, *51*(5), 2022–2038. <https://doi.org/10.3758/s13428-019-01273-7>
- Chirumbolo, A. (2002). The relationship between need for cognitive closure and political orientation: The mediating role of authoritarianism. *Personality and Individual Differences*, *32*(4), 603–610. [https://doi.org/10.1016/S0191-8869\(01\)00062-9](https://doi.org/10.1016/S0191-8869(01)00062-9)
- Christensen, S. R., Pilling, E. B., Eyring, J. B., Dickerson, G., Sloan, C. D., & Magnusson, B. M. (2020). Political and personal reactions to COVID-19 during initial weeks of social distancing in the United States. *PLoS ONE*, *15*(9), e0239693.
<https://doi.org/10.1371/journal.pone.0239693>

- Clark, K., & Adams, A. (2023). Altering attitudes on climate change: Testing the effect of time orientation and motivation framing. *CSU Journal of Sustainability and Climate Change*, 3(1), 4–12. <https://doi.org/10.55671/2771-5582.1019>
- Clifford, S., Jewell, R. M., & Waggoner, P. D. (2015). Are samples drawn from Mechanical Turk valid for research on political ideology? *Research & Politics*, 2(4), 205316801562207. <https://doi.org/10.1177/2053168015622072>
- Clinton, J., Cohen, J., Lapinski, J., & Trussler, M. (2021). Partisan pandemic: How partisanship and public health concerns affect individuals' social mobility during COVID-19. *Science Advances*, 7(2), eabd7204. <https://doi.org/10.1126/sciadv.abd7204>
- Cohen, G. L. (2003). Party over policy: The dominating impact of group influence on political beliefs. *Journal of Personality and Social Psychology*, 85(5), 808–822. <https://doi.org/10.1037/0022-3514.85.5.808>
- Cohen, G. L., Aronson, J., & Steele, C. M. (2000). When beliefs yield to evidence: Reducing biased evaluation by affirming the self. *Personality and Social Psychology Bulletin*, 26(9), 1151–1164. <https://doi.org/10.1177/01461672002611011>
- Connaughten, A. (2021, July 30). Those on ideological right favor fewer COVID-19 restrictions in most advanced economies. *Pew Research Center*. <https://www.pewresearch.org/fact-tank/2021/07/30/those-on-ideological-right-favor-fewer-covid-19-restrictions-in-most-advanced-economies/>
- Costello, T. H., Bowes, S. M., Baldwin, M. W., Malka, A., & Tasimi, A. (2023). Revisiting the rigidity-of-the-right hypothesis: A meta-analytic review. *Journal of Personality and Social Psychology*, 124(5), 1025–1052. <https://doi.org/10.1037/pspp0000446>
- Costello, T. H., & Lilienfeld, S. O. (2021). Social and economic political ideology consistently operate as mutual suppressors: Implications for personality, social, and political psychology. *Social Psychological and Personality Science*, 12(8), 1425–1436. <https://doi.org/10.1177/1948550620964679>

- Crowson, H. M. (2009). Are all conservatives alike? A study of the psychological correlates of cultural and economic conservatism. *The Journal of Psychology: Interdisciplinary and Applied*, *143*(5), 449–463. <https://doi.org/10.3200/JRL.143.5.449-463>
- Curran, P. J., & Hussong, A. M. (2009). Integrative data analysis: The simultaneous analysis of multiple data sets. *Psychological Methods*, *14*(2), 81–100. <https://doi.org/10.1037/a0015914>
- Dahir, A. L. (2021, June 10). Without a big boost, many African nations may not meet a vaccination goal. *The New York Times*. <https://www.nytimes.com/2021/06/10/world/africa/africa-covid-vaccine-who.html>
- DeMora, S. L., Merolla, J. L., Newman, B., & Zechmeister, E. J. (2021). Reducing mask resistance among White evangelical Christians with value-consistent messages. *Proceedings of the National Academy of Sciences*, *118*(21). <https://doi.org/10.1073/pnas.2101723118>
- Deutsche Gesellschaft für Psychologie (2018). *Ethisches Handeln in der psychologischen Forschung: Empfehlungen der Deutschen Gesellschaft für Psychologie für Forschende und Ethikkommissionen*. Hogrefe.
- Dias, N., & Lelkes, Y. (2022). The nature of affective polarization: Disentangling policy disagreement from partisan identity. *American Journal of Political Science*, *66*(3), 775–790. <https://doi.org/10.1111/ajps.12628>
- Dodd, M. D., Balzer, A., Jacobs, C. M., Gruszczynski, M. W., Smith, K. B., & Hibbing, J. R. (2012). The political left rolls with the good and the political right confronts the bad: Connecting physiology and cognition to preferences. *Philosophical Transactions of the Royal Society B: Biological Sciences*, *367*(1589), 640–649. <https://doi.org/10.1098/rstb.2011.0268>
- Doherty, T. J., & Clayton, S. (2011). The psychological impacts of global climate change. *American Psychologist*, *66*(4), 265–276. <https://doi.org/10.1037/a0023141>

-
- Dohle, S., Wingen, T., & Posten, A.-C. (2023). *Trust in science and protective behaviors during the COVID-19 pandemic*. [Manuscript in preparation]. University of Bonn.
- Dorrough, A. R., & Glöckner, A. (2016). Multinational investigation of cross-societal cooperation. *Proceedings of the National Academy of Sciences*, *113*(39), 10836–10841. <https://doi.org/10.1073/pnas.1601294113>
- Dovidio, J. F., Gaertner, S. L., & Validzic, A. (1998). Intergroup bias: Status, differentiation, and a common in-group identity. *Journal of Personality and Social Psychology*, *75*(1), 109–120. <https://doi.org/10.1037/0022-3514.75.1.109>
- Duarte, J. L., Crawford, J. T., Stern, C., Haidt, J., Jussim, L., & Tetlock, P. E. (2015). Political diversity will improve social psychological science. *Behavioral and Brain Sciences*, *38*, e130. <https://doi.org/10.1017/S0140525X14000430>
- Duckitt, J., & Sibley, C. G. (2009). A dual-process motivational model of ideology, politics, and prejudice. *Psychological Inquiry*, *20*(2-3), 98–109. <https://doi.org/10.1080/10478400903028540>
- Duckitt, J., & Sibley, C. G. (2010). Personality, ideology, prejudice, and politics: A dual-process motivational model. *Journal of Personality*, *78*(6), 1861–1894. <https://doi.org/10.1111/j.1467-6494.2010.00672.x>
- Dunlap, R. E., & McCright, A. M. (2011). Organized climate change denial. In J. S. Dryzek, R. B. Norgaard, & D. Schlosberg (Eds.), *The Oxford handbook of climate change and society* (pp. 144–160). Oxford.
- Dyer, O. (2020). Covid-19: Trump stokes protests against social distancing measures. *BMJ*, *m1596*. <https://doi.org/10.1136/bmj.m1596>
- Eccleshall, R. (1990). *English conservatism since the Restoration: An introduction and anthology*. Routledge.

- Faul, F., Erdfelder, E., Lang, A.-G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191. <https://doi.org/10.3758/BF03193146>
- Fay, D., & Frese, M. (2000). Conservatives' approach to work: Less prepared for future work demands? *Journal of Applied Social Psychology*, *30*(1), 171–195. <https://doi.org/10.1111/j.1559-1816.2000.tb02310.x>
- Federico, C. M. (2022). The personality basis of political preferences. In D. Osborne & C. Sibley (Eds.), *The Cambridge handbook of political psychology* (pp. 68–88). Cambridge University Press. <https://doi.org/10.1017/9781108779104.006>
- Federico, C. M., Ergun, D., & Hunt, C. (2014). Opposition to equality and support for tradition as mediators of the relationship between epistemic motivation and system-justifying identifications. *Group Processes & Intergroup Relations*, *17*(4), 524–541. <https://doi.org/10.1177/1368430213517273>
- Federico, C. M., Hunt, C. V., & Ergun, D. (2009). Political expertise, social worldviews, and ideology: Translating "competitive jungles" and "dangerous worlds" into ideological reality. *Social Justice Research*, *22*(2-3), 259–279. <https://doi.org/10.1007/s11211-009-0097-0>
- Federico, C. M., & Malka, A. (2018). The contingent, contextual nature of the relationship between needs for security and certainty and political preferences: Evidence and implications. *Political Psychology*, *39*(Suppl 1), 3–48. <https://doi.org/10.1111/pops.12477>
- Feinberg, M., & Willer, R. (2011). Apocalypse soon? Dire messages reduce belief in global warming by contradicting just-world beliefs. *Psychological Science*, *22*(1), 34–38. <https://doi.org/10.1177/0956797610391911>
- Feinberg, M., & Willer, R. (2013). The moral roots of environmental attitudes. *Psychological Science*, *24*(1), 56–62. <https://doi.org/10.1177/0956797612449177>

- Feinberg, M., & Willer, R. (2019). Moral reframing: A technique for effective and persuasive communication across political divides. *Social Psychology and Personality Compass*, 13(12), e12501. <https://doi.org/10.1111/spc3.12501>
- Feldman, S., & Johnston, C. (2014). Understanding the determinants of political ideology: Implications of structural complexity. *Political Psychology*, 35(3), 337–358. <https://doi.org/10.1111/pops.12055>
- Feldman, L., Maibach, E. W., Roser-Renouf, C., & Leiserowitz, A. (2012). Climate on cable: The nature and impact of global warming coverage on Fox News, CNN, and MSNBC. *The International Journal of Press/Politics*, 17(1), 3–31. <https://doi.org/10.1177/1940161211425410>
- Fetterman, A. K., Wildschut, T., & Sedikides, C. (2021). Bring back my Barry to me: Nostalgia for Barack Obama and political outcomes. *Personality and Individual Differences*, 180, 110979. <https://doi.org/10.1016/j.paid.2021.110979>
- Feygina, I., Jost, J. T., & Goldsmith, R. E. (2010). System justification, the denial of global warming, and the possibility of “system-sanctioned change”. *Personality and Social Psychology Bulletin*, 36(3), 326–338. <https://doi.org/10.1177/0146167209351435>
- Finkel, E. J., Bail, C. A., Cikara, M., Ditto, P. H., Iyengar, S., Klar, S., ... & Druckman, J. N. (2020). Political sectarianism in America. *Science*, 370(6516), 533–536. <https://doi.org/10.1126/science.abe1715>
- Fritsche, I., Cohrs, J. C., Kessler, T., & Bauer, J. (2012). Global warming is breeding social conflict: The subtle impact of climate change threat on authoritarian tendencies. *Journal of Environmental Psychology*, 32(1), 1–10. <https://doi.org/10.1016/j.jenvp.2011.10.002>
- Fujita, K., Eyal, T., Chaiken, S., Trope, Y., & Liberman, N. (2008). Influencing attitudes toward near and distant objects. *Journal of Experimental Social Psychology*, 227(21), 9044–9062. <https://doi.org/10.1016/j.jesp.2007.10.005>

Funk, C., & Tyson, A. (2020, June 3). *Partisan differences over the pandemic are growing*.

Pew Research Center. <https://www.pewresearch.org/science/2020/06/03/partisan-differences-over-the-pandemic-response-are-growing/>

Gadarian, S. K., Goodman, S. W., & Pepinsky, T. B. (2021). Partisanship, health behavior, and policy attitudes in the early stages of the COVID-19 pandemic. *PLoS ONE*, *16*(4), e0249596. <https://doi.org/10.1371/journal.pone.0249596>

Gerber, A. S., Huber, G. A., Doherty, D., & Dowling, C. M. (2011). The Big Five personality traits in the political arena. *Annual Review of Political Science*, *14*, 265–287. <https://doi.org/10.1146/annurev-polisci-051010-111659>

Gerber, A. S., Huber, G. A., Doherty, D., Dowling, C. M., & Ha, S. E. (2010). Personality and political attitudes: Relationships across issue domains and political contexts. *American Political Science Review*, *104*(1), 111–133.

<https://doi.org/10.1017/S0003055410000031>

Gifford, R. (2011). The dragons of inaction: Psychological barriers that limit climate change mitigation and adaptation. *American Psychologist*, *66*(4), 290–302.

<https://doi.org/10.1037/a0023566>

Gillies, J., & Campbell, S. (1985). Conservatism and poetry preferences. *British Journal of Social Psychology*, *24*(3), 223–227. <https://doi.org/10.1111/j.2044-8309.1985.tb00682.x>

Gollwitzer, A., Martel, C., Brady, W. J., Pärnamets, P., Freedman, I. G., Knowles, E. D., & Van Bavel, J. J. (2020). Partisan differences in physical distancing are linked to health outcomes during the COVID-19 pandemic. *Nature Human Behaviour*, *4*(11), 1186–1197. <https://doi.org/10.1038/s41562-020-00977-7>

Graham, J., Haidt, J., Koleva, S., Motyl, M., Iyer, R., Wojcik, S., & Ditto, P. H. (2013). Moral foundations theory: The pragmatic validity of moral pluralism. *Advances in Experimental Social Psychology*, *47*, 55–130. <https://doi.org/10.1016/B978-0-12-407236-7.00002-4>

- Graham, J., Haidt, J., & Nosek, B. A. (2009). Liberals and conservatives rely on different sets of moral foundations. *Journal of Personality and Social Psychology*, *96*(5), 1029–1046. <https://doi.org/10.1037/a0015141>
- Graham, J., Nosek, B. A., & Haidt, J. (2012). The moral stereotypes of liberals and conservatives: Exaggeration of differences across the political spectrum. *PLoS ONE*, *7*(12), e50092. <https://doi.org/10.1371/journal.pone.0050092>
- Green, E. (2016, July 13). They did things differently there: how Brexiteers appealed to voters' nostalgia. *LSE Brexit*. <https://blogs.lse.ac.uk/brexit/2016/07/13/they-did-things-differently-there-how-brexiteers-appealed-to-voters-nostalgia/>
- Green, J., Edgerton, J., Naftel, D., Shoub, K., & Cranmer, S. J. (2020). Elusive consensus: Polarization in elite communication on the COVID-19 pandemic. *Science Advances*, *6*(28), eabc2717. <https://doi.org/10.1126/sciadv.abc2717>
- Greenberg, J., & Jonas, E. (2003). Psychological motives and political orientation. The left, the right, and the rigid: Comment on Jost et al. (2003). *Psychological Bulletin*, *129*(3), 376–382. <https://doi.org/10.1037/0033-2909.129.3.376>
- Greenberg, J., Porteus, J., Simon, L., Pyszczynski, T., & Solomon, S. (1995). Evidence of a terror management function of cultural icons: The effects of mortality salience on the inappropriate use of cherished cultural symbols. *Personality and Social Psychology Bulletin*, *21*(11), 1221–1228. <https://doi.org/10.1177/01461672952111010>
- Greenberg, J., Pyszczynski, T., & Solomon, S. (1986). The causes and consequences of a need for self-esteem: A Terror Management Theory. In R. F. Baumeister (Ed.), *Public self and private self* (pp. 189–212). Springer. https://doi.org/10.1007/978-1-4613-9564-5_10
- Gromet, D., Kunreuther, H., & Larrick, R. (2013). Political ideology affects energy- efficiency attitudes and choices. *Proceedings of the National Academy of Sciences*, *110*(23), 9314–9319. <https://doi.org/10.1073/pnas.1218453110>
- Guber, D. L. (2013). A cooling climate for change? Party polarization and the politics of global

- warming. *American Behavioral Scientist*, 57(1), 93–115.
<https://doi.org/10.1177/0002764212463361>
- Haidt, J. (2012). *The righteous mind: Why good people are divided by politics and religion*. Pantheon Books.
- Haidt, J., & Graham, J. (2007). When morality opposes justice: Conservatives have moral intuitions that liberals may not recognize. *Social Justice Research*, 20(1), 98–116.
<https://doi.org/10.1007/s11211-007-0034-z>
- Halperin, E., Russell, A. G., Trzesniewski, K. H., Gross, J. J., & Dweck, C. S. (2011). Promoting the Middle East peace process by changing beliefs about group malleability. *Science*, 333(6050), 1767–1769. <https://doi.org/10.1126/science.1202925>
- Han, M., & Newman, G. E. (2022). Seeking stability: Consumer motivations for communal nostalgia. *Journal of Consumer Psychology*, 32(1), 77–86.
<https://doi.org/10.1002/jcpy.1237>
- Hanel, P. H., Maio, G. R., & Manstead, A. S. (2019). A new way to look at the data: Similarities between groups of people are large and important. *Journal of Personality and Social Psychology*, 116(4), 541–562. <https://doi.org/10.1037/pspi0000154>
- Hanel, P. H., & Wolf, L. J. (2020). Leavers and Remainers after the Brexit referendum: More united than divided after all? *British Journal of Social Psychology*, 59(2), 470–493.
<https://doi.org/10.1111/bjso.12359>
- Hardin, C. D., & Conley, T. D. (2001). A relational approach to cognition: Shared experience and relationship affirmation in social cognition. In G. B. Moskowitz (Ed.), *Cognitive social psychology: The Princeton symposium on the legacy and future of social cognition* (pp. 3–17). Lawrence Erlbaum Associates.
- Hardin, C. D., & Higgins, E. T. (1996). Shared reality: How social verification makes the subjective objective. In E. T. Higgins & R. M. Sorrentino (Eds.), *Handbook of motivation and cognition: The interpersonal context* (3rd ed., pp. 28–84). Guilford

Press.

Hartman, R., Blakey, W., Womick, J., Bail, C., Finkel, E. J., Han, H., ... & Gray, K. (2022).

Interventions to reduce partisan animosity. *Nature Human Behaviour*, 6(9), 1194–1205.

<https://doi.org/10.1038/s41562-022-01442-3>

Hauser, D. J., Moss, A. J., Rosenzweig, C., Jaffe, S. N., Robinson, J., & Litman, L. (2022).

Evaluating CloudResearch's Approved Group as a solution for problematic data quality on MTurk. *Behavior Research Methods*. <https://doi.org/10.3758/s13428-022-01999-x>

Havlena, W. J., & Holak, S. L. (1996). Exploring nostalgia imagery through the use of

consumer collages. *Advances in Consumer Research Association for Consumer Research*, 23, 35–42.

Hayes, A. F. (2013). *Introduction to mediation, moderation, and conditional process analysis:*

A regression-based approach. The Guilford Press.

Heine, S. J., Proulx, T., & Vohs, K. D. (2006). The Meaning Maintenance Model: On the

coherence of social motivations. *Personality and Social Psychology Review*, 10(2), 88–

110. https://doi.org/10.1207/s15327957pspr1002_1

Hennes, E. P., Nam, H. H., Stern, C., & Jost, J. T. (2012). Not all ideologies are created equal:

Epistemic, existential, and relational needs predict system-justifying attitudes. *Social Cognition*, 30(6), 669–688. <https://doi.org/10.1521/soco.2012.30.6.669>

Henrich, J., Heine, S. J., & Norenzayan, A. (2010). Beyond WEIRD: Towards a broad-based

behavioral science. *Behavioral and Brain Sciences*, 33(2–3), 111–135.

<https://doi.org/10.1017/S0140525X10000725>

Herberz, M., Brosch, T., & Hahnel, U. J. (2023). The impact of perceived partisanship on

climate policy support: A conceptual replication and extension of the temporal framing effect. *Journal of Environmental Psychology*, 86, 101972.

<https://doi.org/10.1016/j.jenvp.2023.101972>

- Hibbing, J. R., Smith, K. B., & Alford, J. R. (2014). Differences in negativity bias underlie variations in political ideology. *Behavioral and Brain Sciences*, 37(3), 297–307.
<https://doi.org/10.1017/s0140525x13001192>
- Hmielowski, J. D., Feldman, L., Myers, T. A., Leiserowitz, A., & Maibach, E. (2014). An attack on science? Media use, trust in scientists, and perceptions of global warming. *Public Understanding of Science*, 23(7), 866–883.
<https://doi.org/10.1177/0963662513480091>
- Hoffarth, M. R., & Hodson, G. (2016). Green on the outside, red on the inside: Perceived environmentalist threat as a factor explaining political polarization of climate change. *Journal of Environmental Psychology*, 45, 40–49.
<https://doi.org/10.1016/j.jenvp.2015.11.002>
- Honeycutt, N., & Freberg, L. (2017). The liberal and conservative experience across academic disciplines: An extension of Inbar and Lammers. *Social Psychological and Personality Science*, 8(2), 115–123.
- Huddy, L., & Yair, O. (2021). Reducing affective polarization: Warm group relations or policy compromise? *Political Psychology*, 42(2), 291–309. <https://doi.org/10.1111/pops.12699>
- Huntington, S. P. (1957). Conservatism as an ideology. *American Political Science Review*, 51(2), 454–473. <https://doi.org/10.2307/1952202>
- Hurst, K., & Stern, M. J. (2020). Messaging for environmental action: The role of moral framing and message source. *Journal of Environmental Psychology*, 68, 101394.
<https://doi.org/10.1016/j.jenvp.2020.101394>
- Inbar, Y., & Lammers, J. (2012). Political diversity in social and personality psychology. *Perspectives on Psychological Science*, 7(5), 496–503.
<https://doi.org/10.1177/1745691612448792>

- Intergovernmental Panel on Climate Change (2021). Climate change 2021: The physical science basis. Contribution of working group I to the sixth assessment report of the Intergovernmental Panel on Climate Change. <https://www.ipcc.ch>
- Iyengar, S., & Krupenkin, M. (2018). The strengthening of partisan affect. *Political Psychology, 39*(Suppl 1), 201–218. <https://doi.org/10.1111/pops.12487>
- Iyengar, S., Lelkes, Y., Levendusky, M. S., Malhotra, N., & Westwood, S. J. (2019). The origins and consequences of affective polarization in the United States. *Annual Review of Political Science, 22*, 129–146. <https://doi.org/10.1146/annurev-polisci-051117-073034>
- Iyengar, S., & Westwood, S. J. (2015). Fear and loathing across party lines: New evidence on group polarization. *American Journal of Political Science, 59*(3), 690–707. <https://doi.org/10.1111/ajps.12152>
- Jacquet, J., Dietrich, M., & Jost, J. T. (2014). The ideological divide and climate change opinion: "top-down" and "bottom-up" approaches. *Frontiers in Psychology, 5*, 1458. <https://doi.org/10.3389/fpsyg.2014.01458>
- Janoff-Bulman, R., Sheikh, S., & Baldacci, K. G. (2008). Mapping moral motives: Approach, avoidance, and political orientation. *Journal of Experimental Social Psychology, 44*(4), 1091–1099. <https://doi.org/10.1016/j.jesp.2007.11.003>
- Johnson, P. O., & Neyman, J. (1936). Tests of certain linear hypotheses and their applications to some educational problems. *Statistical Research Memoirs, 1*, 57–93.
- Johnston, C. D., Lavine, H. G., & Federico, C. M. (2017). *Open versus closed: Personality, identity, and the politics of redistribution*. Cambridge University Press.
- Johnston, C. D., & Ollerenshaw, T. (2020). How different are cultural and economic ideology? *Current Opinion in Behavioral Sciences, 34*, 94–101. <https://doi.org/10.1016/j.cobeha.2020.01.008>

- Jones, K. L., Noorbaloochi, S., Jost, J. T., Bonneau, R., Nagler, J., & Tucker, J. A. (2018). Liberal and conservative values: What we can learn from congressional tweets. *Political Psychology, 39*(2), 423–443. <https://doi.org/10.1111/pops.12415>
- Jost, J. T. (2006). The end of the end of ideology. *American Psychologist, 61*(7), 651–670. <https://doi.org/10.1037/0003-066X.61.7.651>
- Jost, J. T. (2017). Ideological asymmetries and the essence of political psychology. *Political Psychology, 38*(2), 167–208. <https://doi.org/10.1111/pops.12407>
- Jost, J. T., & Amodio, D. M. (2012). Political ideology as motivated social cognition: Behavioral and neuroscientific evidence. *Motivation and Emotion, 36*(1), 55–64. <https://doi.org/10.1007/s11031-011-9260-7>
- Jost, J. T., Federico, C. M., & Napier, J. L. (2009). Political ideology: Its structure, functions, and elective affinities. *Annual Review of Psychology, 60*(1), 307–337. <https://doi.org/10.1146/annurev.psych.60.110707.163600>
- Jost, J. T., Fitzsimons, G., & Kay, A. C. (2004). The ideological animal: A system justification view. In J. Greenberg, S. L. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 263–283). Guilford Press.
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003a). Political conservatism as motivated social cognition. *Psychological Bulletin, 129*(3), 339–375. <https://doi.org/10.1037/0033-2909.129.3.339>
- Jost, J. T., Glaser, J., Kruglanski, A. W., & Sulloway, F. J. (2003b). Exceptions that prove the rule – Using a theory of motivated social cognition to account for ideological incongruities and political anomalies: Reply to Greenberg and Jonas (2003). *Psychological Bulletin, 129*(3), 383–393. <https://doi.org/10.1037/0033-2909.129.3.383>
- Jost, J. T., Hawkins, C. B., Nosek, B. A., Hennes, E. P., Stern, C., Gosling, S. D., & Graham, J. (2014). Belief in a just God (and a just society): A system justification perspective on

- religious ideology. *Journal of Theoretical and Philosophical Psychology*, 34(1), 56–81.
<https://doi.org/10.1037/a0033220>
- Jost, J. T., Ledgerwood, A., & Hardin, C. D. (2008). Shared reality, system justification, and the relational basis of ideological beliefs. *Social and Personality Psychology Compass*, 2(1), 171–186. <https://doi.org/10.1111/j.1751-9004.2007.00056.x>
- Jost, J. T., Napier, J. L., Thorisdottir, H., Gosling, S. D., Palfai, T. P., & Ostafin, B. (2007). Are needs to manage uncertainty and threat associated with political conservatism or ideological extremity? *Personality and Social Psychology Bulletin*, 33(7), 989–1007.
<https://doi.org/10.1177/0146167207301028>
- Jost, J. T., Nosek, B. A., & Gosling, S. D. (2008). Ideology: Its resurgence in social, personality, and political psychology. *Perspectives on Psychological Science*, 3(2), 126–136. <https://doi.org/10.1111/j.1745-6916.2008.00070.x>
- Jost, J. T., Stern, C., Rule, N. O., & Sterling, J. (2017). The politics of fear: Is there an ideological asymmetry in existential motivation? *Social Cognition*, 35(4), 324–353.
<https://doi.org/10.1521/soco.2017.35.4.324>
- Jugert, P., & Duckitt, J. (2009). A motivational model of authoritarianism: Integrating personal and situational determinants. *Political Psychology*, 30(5), 693–719.
<https://doi.org/10.1111/j.1467-9221.2009.00722.x>
- Juhl, J., Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2010). Fighting the future with the past: Nostalgia buffers existential threat. *Journal of Research in Personality*, 44(3), 309–314. <https://doi.org/10.1016/j.jrp.2010.02.006>
- Kawakatsu, M., Lelkes, Y., Levin, S. A., & Tarnita, C. E. (2021). Interindividual cooperation mediated by partisanship complicates Madison’s cure for “mischiefs of faction”. *Proceedings of the National Academy of Sciences*, 118(50), e2102148118.
<https://doi.org/10.1073/pnas.2102148118>
- Kay, A. C., & Eibach, R. P. (2012). The ideological toolbox: Ideologies as tools of motivated

- social cognition. In S. T. Fiske & C. N. Macrae (Eds.), *The SAGE handbook of social cognition* (pp. 495–515). SAGE Publications Ltd.
- Kerr, J., Panagopoulos, C., & van der Linden, S. (2021). Political polarization on COVID-19 pandemic response in the United States. *Personality and Individual Differences, 179*, 110892. <https://doi.org/10.1016/j.paid.2021.110892>
- Kim, I., Hammond, M. D., & Milfont, T. L. (2021). Do past-focused environmental messages promote pro-environmentalism to conservatives? A pre-registered replication. *Journal of Environmental Psychology, 73*, 101547. <https://doi.org/10.1016/j.jenvp.2020.101547>
- Kirk, R. (1953). *The conservative mind: From Burke to Eliot*. Avon Books.
- Kivetz, Y., & Tyler, T. R. (2007). Tomorrow I'll be me: The effect of time perspective on the activation of idealistic versus pragmatic selves. *Organizational Behavior and Human Decision Processes, 102*(2), 193–211. <https://doi.org/10.1016/j.obhdp.2006.07.002>
- Koch, A., Imhoff, R., Dotsch, R., Unkelbach, C., & Alves, H. (2016). The ABC of stereotypes about groups: Agency/socioeconomic success, conservative–progressive beliefs, and communion. *Journal of Personality and Social Psychology, 110*(5), 675–709. <https://doi.org/10.1037/pspa0000046>
- Kosloff, S., Landau, M. J., & Burke, B. (2016). Terror management and politics: Comparing and integrating the “conservative shift” and “political worldview defense” hypotheses. In L. A. Harvell & G. S. Nisbett (Eds.), *Denying death: An interdisciplinary approach to terror management theory* (1st ed., pp. 28–46). Routledge/Taylor & Francis Group. <https://doi.org/10.4324/9781315641393-3>
- Kramer, R. M., & Brewer, M. B. (1984). Effects of group identity on resource use in a simulated commons dilemma. *Journal of Personality and Social Psychology, 46*(5), 1044–1057. <https://doi.org/10.1037/0022-3514.46.5.1044>
- Krosnick, J., & MacInnis, B. (2020). Climate insights 2020: Surveying American public opinion on climate change and the environment. *Resources for the future*. Retrieved

- from: https://media.rff.org/documents/Climate_Insights_2020_Partisan_Divide.pdf
- Kruglanski, A. W. (1990). Motivations for judging and knowing: Implications for causal attribution. In E. T. Higgins & R. M. Sorrentino (Eds.), *The handbook of motivation and cognition: Foundation of social behavior* (2nd ed., pp. 333–368). Guilford Press.
- Kruglanski, A. W., & Webster, D. M. (1996). Motivated closing of the mind: “seizing” and “freezing”. *Psychological Review*, *103*(2), 263–283. <https://doi.org/10.1037/0033-295X.103.2.263>
- Kubin, E., Puryear, C., Schein, C., & Gray, K. (2021). Personal experiences bridge moral and political divides better than facts. *Proceedings of the National Academy of Sciences*, *118*(6), e2008389118. <https://doi.org/10.1073/pnas.2008389118>
- Kubin, E., & von Sikorski, C. (2021). The role of (social) media in political polarization: a systematic review. *Annals of the International Communication Association*, *45*(3), 188–206. <https://doi.org/10.1080/23808985.2021.1976070>
- Lakoff, G. (2010). *Moral politics: How liberals and conservatives think*. University of Chicago Press.
- Lambert, N. M., Stillman, T. F., Hicks, J. A., Kamble, S., Baumeister, R. F., & Fincham, F. D. (2013). To belong is to matter: Sense of belonging enhances meaning in life. *Personality and Social Psychology Bulletin*, *39*(11), 1418–1427. <https://doi.org/10.1177/0146167213499186>
- Lammers, J., & Baldwin, M. (2018). Past-focused temporal communication overcomes conservatives’ resistance to liberal political ideas. *Journal of Personality and Social Psychology*, *114*(4), 599–619. <https://doi.org/10.1037/pspi0000121>
- Lammers, J., & Baldwin, M. (2020). Make America gracious again: Collective nostalgia can increase and decrease support for right-wing populist rhetoric. *European Journal of Social Psychology*, *50*(5), 943–954. <https://doi.org/10.1002/ejsp.2673>

- Lammers, J., & Baldwin, M. (2022). Two sides of the same coin: A new look at differences and similarities across political ideology. In D. Osborne & C. Sibley (Eds.), *The Cambridge Handbook of Political Psychology* (Cambridge Handbooks in Psychology, pp. 674–686). Cambridge: Cambridge University Press.
<https://doi.org/10.1017/9781108779104.045>
- Lammers, J., & Proulx, T. (2013). Writing autobiographical narratives increases political conservatism. *Journal of Experimental Social Psychology*, *49*(4), 684–691.
<https://doi.org/10.1016/j.jesp.2013.03.008>
- Lammers, J., & Uğurlar, P. (2023). Political-ideological differences in cultural pessimism and nostalgia reflect people's evaluation of their nation's historical developments. *Social Psychological and Personality Science*, *0*(0).
<https://doi.org/10.1177/19485506231173735>
- Landau, M. J., Johns, M., Greenberg, J., Pyszczynski, T., Martens, A., Goldenberg, J. L., & Solomon, S. (2004). A function of form: Terror management and structuring the social world. *Journal of Personality and Social Psychology*, *87*(2), 190–210.
<https://doi.org/10.1037/0022-3514.87.2.190>
- Landau, M. J., Sullivan, D., & King, L. A. (2010). Terror management and personality: Variations in the psychological defense against the awareness of mortality. *Social and Personality Psychology Compass*, *4*(10), 906–917. <https://doi.org/10.1111/j.1751-9004.2010.00305.x>
- Latkin, C. A., Dayton, L., Moran, M., Strickland, J. C., & Collins, K. (2021). Behavioral and psychosocial factors associated with COVID-19 skepticism in the United States. *Current Psychology*, *41*, 7918–7926. <https://doi.org/10.1007/s12144-020-01211-3>
- Leary, M. R., Kelly, K. M., Cottrell, C. A., & Schreindorfer, L. S. (2013). Construct validity of the Need to Belong Scale: Mapping the nomological network. *Journal of Personality Assessment*, *95*(6), 610–624. <https://doi.org/10.1080/00223891.2013.819511>

-
- Lelkes, Y., Sood, G., & Iyengar, S. (2017). The hostile audience: The effect of access to broadband internet on partisan affect. *American Journal of Political Science*, *61*(1), 5–20. <https://doi.org/10.1111/ajps.12237>
- Leonard, N. E., Lipsitz, K., Bizyaeva, A., Franci, A., & Lelkes, Y. (2021). The nonlinear feedback dynamics of asymmetric political polarization. *Proceedings of the National Academy of Sciences*, *118*(50), e2102149118. <https://doi.org/10.1073/pnas.2102149118>
- Levendusky, M. S. (2009a). The microfoundations of mass polarization. *Political Analysis*, *17*(2), 162–176. <http://dx.doi.org/10.1093/pan/mpp003>
- Levendusky, M. S. (2009b). *The partisan sort: How liberals became Democrats and conservatives became Republicans*. University of Chicago Press.
- Levendusky, M. S. (2018). Americans, not partisans: Can priming American national identity reduce affective polarization? *The Journal of Politics*, *80*(1), 59–70. <https://doi.org/10.1086/693987>
- Li, H., & Cao, Y. (2022). Time for politics: The relationship between political attitude and implicit space-time mappings. *Current Psychology*, *41*(3), 1184–1190. <https://doi.org/10.1007/s12144-020-00640-4>
- Lindenberg, S., & Steg, L. (2013). Goal-framing theory and norm-guided environmental behavior. In H. C. M. Van Trijp (Ed.) *Encouraging sustainable behavior* (pp. 37–54). Psychology Press.
- Litman, L., Robinson, J., & Abberbock, T. (2017). TurkPrime.com: A versatile crowdsourcing data acquisition platform for the behavioral sciences. *Behavior Research Methods*, *49*(2), 433–442. <https://doi.org/10.3758/s13428-016-0727-z>
- Luttrell, A., & Petty, R. E. (2021). Evaluations of self-focused versus other-focused arguments for social distancing: An extension of moral matching effects. *Social Psychological and Personality Science*, *12*(6), 946–954. <https://doi.org/10.1177/1948550620947853>

- Luttrell, A., & Trentadue, J. T. (2023). Advocating for mask-wearing across the aisle: Applying moral reframing in health communication. *Health Communication*, 1–13. Advance online publication. <https://doi.org/10.1080/10410236.2022.2163535>
- Makowsky, M. D. (2011). Religion, clubs, and emergent social divides. *Journal of Economic Behavior & Organization*, 80(1), 74–87. <https://doi.org/10.1016/j.jebo.2011.02.012>
- Malka, A., Lelkes, Y., & Soto, C. J. (2019). Are cultural and economic conservatism positively correlated? A large-scale cross-national test. *British Journal of Political Science*, 49(3), 1045–1069. <https://doi.org/10.1017/S0007123417000072>
- Malka, A., Soto, C. J., Inzlicht, M., & Lelkes, Y. (2014). Do needs for security and certainty predict cultural and economic conservatism? A cross-national analysis. *Journal of Personality and Social Psychology*, 106(6), 1031–1051. <https://doi.org/10.1037/a0036170>
- Maxmen, A. (2021). Chelsea Clinton urges global sharing of COVID vaccine technology. *Nature*, 596(7872), 331–331. <https://doi.org/10.1038/d41586-021-02164-8>
- McAllister, P. O., & Anderson, A. (1991). Conservatism and the comprehension of implausible text. *European Journal of Social Psychology*, 21(2), 147–164. <https://doi.org/10.1002/ejsp.2420210205>
- McCarty, N. (2019). *Polarization: What everyone needs to know*. Oxford University Press.
- McCarty, N., Poole, K., & Rosenthal, H. (2006). *Polarized America: The dance of ideology and unequal riches*. MIT Press.
- McClelland, J. S. (2005). *A history of western political thought*. Routledge.
- McCrae, R. R., & Costa, P. T., Jr. (2003). *Personality in adulthood: A five-factor theory perspective* (2nd ed.). Guilford Press. <https://doi.org/10.4324/9780203428412>
- McCright, A. M., & Dunlap, R. E. (2011). The politicization of climate change and polarization in the American public's views of global warming, 2001-2010. *The Sociological Quarterly*, 52(2), 155–194. <https://doi.org/10.1111/j.1533-8525.2011.01198.x>

-
- McCright, A. M., Dunlap, R. E., & Marquart-Pyatt, S. T. (2016). Political ideology and views about climate change in the European Union. *Environmental Politics*, 25(2), 338–358. <https://doi.org/10.1080/09644016.2015.1090371>
- Menke, M., & Wulf, T. (2021). The dark side of inspirational pasts: An investigation of nostalgia in right-wing populist communication. *Media and Communication*, 9(2), 237–249. <https://doi.org/10.17645/mac.v9i2.3803>
- Mernyk, J. S., Pink, S. L., Druckman, J. N., & Willer, R. (2022). Correcting inaccurate metaperceptions reduces Americans' support for partisan violence. *Proceedings of the National Academy of Sciences*, 119(16), e2116851119. <https://doi.org/10.1073/pnas.2116851119>
- Mikulincer, M., Florian, V., Birnbaum, G., & Malishkevich, S. (2002). The death-anxiety buffering function of close relationships: Exploring the effects of separation reminders on death-thought accessibility. *Personality and Social Psychology Bulletin*, 28(3), 287–299. <https://doi.org/10.1177/0146167202286001>
- Mols, F., & Jetten, J. (2014). No guts, no glory: How framing the collective past paves the way for anti-immigrant sentiments. *International Journal of Intercultural Relations*, 43(Part A), 74–86. <https://doi.org/10.1016/j.ijintrel.2014.08.014>
- Moore-Berg, S. L., Ankori-Karlinsky, L. O., Hameiri, B., & Bruneau, E. (2020). Exaggerated meta-perceptions predict intergroup hostility between American political partisans. *Proceedings of the National Academy of Sciences*, 117(26), 14864–14872. <https://doi.org/10.1073/pnas.2001263117>
- Morris, R. (1986). *Time's arrows: Scientific attitudes toward time*. Simon and Schuster.
- Muller, J. Z. (1997). *Conservatism: An anthology of social and political thought from David Hume to the present*. Princeton University Press.
- Nail, P. R., & McGregor, I. (2009). Conservative shift among liberals and conservatives following 9/11/01. *Social Justice Research*, 22(2–3), 231–240.

<https://doi.org/10.1007/s11211-009-0098-z>

- Nisbet, M. C., Markowitz, E. M., & Kotcher, J. E. (2012). Winning the conversation: Framing and moral messaging in environmental campaigns. In L. Ahern & D. S. Bortree (Eds.), *Talking green: Exploring contemporary issues in environmental communications* (pp. 9–36). Peter Lang.
- Obama, B. (2013). *Remarks by the President on comprehensive immigration reform* [Transcript]. Retrieved from <https://obamawhitehouse.archives.gov/the-press-office/2013/01/29/remarks-president-comprehensive-immigration-reform>
- Onraet, E., Van Hiel, A., Dhont, K., & Pattyn, S. (2013). Internal and external threat in relationship with right-wing attitudes. *Journal of Personality, 81*(3), 233–248. <https://doi.org/10.1111/jopy.12011>
- Ouellette, J. A., & Wood, W. (1998). Habit and intention in everyday life: The multiple processes by which past behavior predicts future behavior. *Psychological Bulletin, 124*(1), 54–74. <https://doi.org/10.1037/0033-2909.124.1.54>
- Pan, J., & Xu, Y. (2018). China's ideological spectrum. *The Journal of Politics, 80*(1), 254–273. <https://doi.org/10.1086/694255>
- Park, R., & Baek, Y. M. (2021). Talking about what would happen versus what happened: Tracking Congressional speeches during COVID-19. *Journal of Social and Political Psychology, 9*(2), 608–622. <https://doi.org/10.5964/jspp.6153>
- Petty, R. E., & Cacioppo, J. T. (1986). *Communication and persuasion: Central and peripheral routes to attitude change*. Springer. <https://doi.org/10.1007/978-1-4612-4964-1>
- Pink, S. L., Chu, J., Druckman, J. N., Rand, D. G., & Willer, R. (2021). Elite party cues increase vaccination intentions among Republicans. *Proceedings of the National Academy of Sciences, 118*(32), e2106559118. <https://doi.org/10.1073/pnas.2106559118>
- Plusnin, N., Pepping, C. A., & Kashima, E. S. (2018). The role of close relationships in terror management: A systematic review and research agenda. *Personality and Social*

-
- Psychology Review*, 22(4), 307–346. <https://doi.org/10.1177/1088868317753505>
- Proulx, T., & Brandt, M. J. (2017). Beyond threat and uncertainty: The underpinnings of conservatism. *Social Cognition*, 35(4), 313–323.
<https://doi.org/10.1521/soco.2017.35.4.313>
- Proulx, T., Costin, V., Magazin, E., Zarzeczna, N., & Haddock, G. (2023). The progressive values scale: Assessing the ideological schism on the left. *Personality and Social Psychology Bulletin*, 49(8), 1248–1272. <https://doi.org/10.1177/01461672221097529>
- Proulx, T., & Heine, S. J. (2006). Death and black diamonds: Meaning, mortality, and the Meaning Maintenance Model. *Psychological Inquiry*, 17(4), 309–318.
<https://doi.org/10.1080/10478400701366985>
- Redding, R. E. (2023). Psychologists' politics. In C. Frisby, R. Redding, W. O'Donohue, & S. Lilienfeld (Eds.), *Ideological and political bias in psychology: Nature, scope, and solutions* (pp. 79–95). Springer.
- Rempel, J. K., Holmes, J. G., & Zanna, M. P. (1985). Trust in close relationships. *Journal of Personality and Social Psychology*, 49(1), 95–112. <https://doi.org/10.1037/0022-3514.49.1.95>
- Roberts, B. W., Chernyshenko, O. S., Stark, S., & Goldberg, L. R. (2005). The structure of conscientiousness: An empirical investigation based on seven major personality questionnaires. *Personnel Psychology*, 58(1), 103–139. <https://doi.org/10.1111/j.1744-6570.2005.00301.x>
- Robinson, M. D., Cassidy, D. M., Boyd, R. L., & Fetterman, A. K. (2015). The politics of time: Conservatives differentially reference the past and liberals differentially reference the future. *Journal of Applied Social Psychology*, 45(7), 391–399.
<http://dx.doi.org/10.1111/jasp.12306>
- Roets, A., & Van Hiel, A. (2011). Item selection and validation of a brief, 15-item version of the Need for Closure Scale. *Personality and Individual Differences*, 50(1), 90–94.

<https://doi.org/10.1016/j.paid.2010.09.004>

Routledge, C., Arndt, J., Sedikides, C., & Wildschut, T. (2008). A blast from the past: The terror management function of nostalgia. *Journal of Experimental Social Psychology*, *44*(1), 132–140. <https://doi.org/10.1016/j.jesp.2006.11.001>

Routledge, C., Arndt, J., Wildschut, T., Sedikides, C., Hart, C. M., Juhl, J., Vingerhoets, A. J. J. M., & Schlotz, W. (2011). The past makes the present meaningful: Nostalgia as an existential resource. *Journal of Personality and Social Psychology*, *101*(3), 638–652. <https://doi.org/10.1037/a0024292>

Routledge, C., Roylance, C., & Abeyta, A. A. (2016). Nostalgia as an existential intervention: Using the past to secure meaning in the present and the future. In P. Russo-Netzer, S. E. Schulenberg, & A. Batthyany (Eds.), *Clinical perspectives on meaning* (pp. 343–362). Springer International Publishing. https://doi.org/10.1007/978-3-319-41397-6_17

Routledge, C., Wildschut, T., Sedikides, C., Juhl, J., & Arndt, J. (2012). The power of the past: Nostalgia as a meaning-making resource. *Memory*, *20*(5), 452–460. <https://doi.org/10.1080/09658211.2012.677452>

Ruggeri, K., Večkalov, B., Bojanić, L., Andersen, T. L., Ashcroft-Jones, S., Ayacaxli, N., ... & Folke, T. (2021). The general fault in our fault lines. *Nature Human Behaviour*, *5*(10), 1369–1380. <https://doi.org/10.1038/s41562-021-01092-x>

Ruisch, B. C., Moore, C., Granados Samayoa, J., Boggs, S., Ladanyi, J., & Fazio, R. (2021). Examining the left-right divide through the lens of a global crisis: Ideological differences and their implications for responses to the COVID-19 pandemic. *Political Psychology*, *42*(5), 795–816. <https://doi.org/10.1111/pops.12740>

Sargent, M. J. (2004). Less thought, more punishment: Need for cognition predicts support for punitive responses to crime. *Personality and Social Psychology Bulletin*, *30*(11), 1485–1493. <https://doi.org/10.1177/0146167204264481>

- Saroglou, V. (2002a). Beyond dogmatism: The need for closure as related to religion. *Mental Health, Religion & Culture*, 5(2), 183–194.
<https://doi.org/10.1080/13674670210144130>
- Saroglou, V. (2002b). Religion and the five factors of personality: A meta-analytic review. *Personality and Individual Differences*, 32(1), 15–25. [https://doi.org/10.1016/S0191-8869\(00\)00233-6](https://doi.org/10.1016/S0191-8869(00)00233-6)
- Schlesinger, A. (1955). The new conservatism: Politics of nostalgia. *The Reporter*, 16, 9–11.
- Schneider, G. L. (2009). *The conservative century: From reaction to revolution*. Rowman & Littlefield.
- Schoemann, A. M., Boulton, A. J., & Short, S. D. (2017). Determining power and sample size for simple and complex mediation models. *Social Psychological and Personality Science*, 8(4), 379–386. <https://doi.org/10.1177/1948550617715068>
- Schulte, A., Lammers, J., & Baldwin, M. (2023). *Highlighting the old in the “new normal”*: *Appealing to conservatives’ nostalgia decreases opposition to COVID-19 measures*. [Manuscript in preparation]. University of Cologne.
- Schwartz, S. H. (1992). Universals in the content and structure of values: Theoretical advances and empirical tests in 20 countries. *Advances in Experimental Social Psychology*, 25, 1–65. [https://doi.org/10.1016/S0065-2601\(08\)60281-6](https://doi.org/10.1016/S0065-2601(08)60281-6)
- Schwartz, S. H. (1994). Are there universal aspects in the structure and contents of human values? *Journal of Social Issues*, 50(4), 19–45. <https://doi.org/10.1111/j.1540-4560.1994.tb01196.x>
- Scruton, R. (1980). *The meaning of conservatism*. Macmillan.
- Sedikides, C., & Wildschut, T. (2019). The sociality of personal and collective nostalgia. *European Review of Social Psychology*, 30(1), 123–173.
<https://doi.org/10.1080/10463283.2019.1630098>

- Sedikides, C., Wildschut, T., Arndt, J., & Routledge, C. (2008). Nostalgia: Past, present, and future. *Current Directions in Psychological Science*, *17*(5), 304–307.
<https://doi.org/10.1111/j.1467-8721.2008.00595.x>
- Sedikides C., Wildschut T., Baden D. (2004). Nostalgia: Conceptual issues and existential functions. In Greenberg J., Koole S., Pyszczynski T. (Eds.), *Handbook of experimental existential psychology* (pp. 200–214). Guilford Press.
- Sedikides, C., Wildschut, T., Cheung, W.-Y., Routledge, C., Hepper, E. G., Arndt, J., . . . Vingerhoets, A. J. J. M. (2016). Nostalgia fosters self-continuity: Uncovering the mechanism (social connectedness) and consequence (eudaimonic well-being). *Emotion*, *16*(4), 524–539. <https://doi.org/10.1037/emo0000136>
- Sedikides, C., Wildschut, T., Routledge, C., & Arndt, J. (2015). Nostalgia counteracts self-discontinuity and restores self-continuity. *European Journal of Social Psychology*, *45*(1), 52–61. <https://doi.org/10.1002/ejsp.2073>
- Shaver, P. R., & Mikulincer, M. (2012). An attachment perspective on coping with existential concerns. In P. R. Shaver & M. Mikulincer (Eds.), *Meaning, mortality, and choice: The social psychology of existential concerns* (pp. 291–307). American Psychological Association. <https://doi.org/10.1037/13748-016>
- Sidanius, J. (1978). Intolerance of ambiguity and socio-political ideology: A multidimensional analysis. *European Journal of Social Psychology*, *8*(2), 215–235.
<https://doi.org/10.1002/ejsp.2420080207>
- Silver, L., & Van Kessel, P. (2021). *Both Republicans and Democrats prioritize family, but they differ over other sources of meaning in life*. Pew Research Center.
<https://www.pewresearch.org/fact-tank/2021/11/22/both-republicans-and-democrats-prioritize-family-but-they-differ-over-other-sources-of-meaning-in-life/>
- Skitka, L. J. (2010). The psychology of moral conviction. *Social and Personality Psychology Compass*, *4*(4), 267–281. <https://doi.org/10.1111/j.1751-9004.2010.00254.x>

- Smeekes, A. (2019). Longing for the good old days of ‘our country’: Understanding the triggers, functions and consequences of national nostalgia. In S. Mukherjee & P. S. Salter (Eds.), *History and collective memory from the margins: A global perspective* (pp. 53–77). Nova Science Publishers.
- Smeekes, A., Jetten, J., Verkuyten, M., Wohl, M. J. A., Jasinskaja-Lahti, I., Ariyanto, A., Autin, F., Ayub, N., Badea, C., Besta, T., Butera, F., Costa-Lopes, R., Cui, L., Fantini, C., Finchilescu, G., Gaertner, L., Gollwitzer, M., Gómez, Á., González, R., ... van der Bles, A. M. (2018). Regaining in-group continuity in times of anxiety about the group’s future: A study on the role of collective nostalgia across 27 countries. *Social Psychology, 49*(6), 311–329. <https://doi.org/10.1027/1864-9335/a000350>
- Smeekes, A., Sedikides, C., & Wildschut, T. (2023). Collective nostalgia: Triggers and consequences for collective action intentions. *British Journal of Social Psychology, 62*(1), 197–214. <https://doi.org/10.1111/bjso.12567>
- Smeekes, A., & Verkuyten, M. (2015). The presence of the past: Identity continuity and group dynamics. *European Review of Social Psychology, 26*(1), 162–202. <https://doi.org/10.1080/10463283.2015.1112653>
- Smeekes, A., Verkuyten, M., & Martinovic, B. (2015). Longing for the country's good old days: National nostalgia, autochthony beliefs, and opposition to Muslim expressive rights. *British Journal of Social Psychology, 54*(3), 561–580. <https://doi.org/10.1111/bjso.12097>
- Smeekes, A., Wildschut, T., & Sedikides, C. (2021). Longing for the “good old days” of our country: National nostalgia as a new master-frame of populist radical right parties. *Journal of Theoretical Social Psychology, 5*(2), 90–102. <https://doi.org/10.1002/jts5.78>
- Stanley, S. K., Klas, A., Clarke, E. J. R., & Walker, I. (2021). The effects of a temporal framing manipulation on environmentalism: A replication and extension. *PLoS ONE, 16*(2), e0246058. <https://doi.org/10.1371/journal.pone.0246058>

- Stefaniak, A., Wohl, M. J. A., & Bilewicz, M. (2021). Pro-diversity intervention improves Poles' intergroup attitudes by increasing collective nostalgia for more open Polish society. *Affective Science*, 2(4), 397–401. <https://doi.org/10.1007/s42761-021-00031-3>
- Stefaniak, A., Wohl, M. J. A., Bilewicz, M., & Petelewicz, J. (2022). Leveraging knowledge about historical diversity: A meta-analysis of findings from the school of dialogue intergroup intervention. *Peace and Conflict: Journal of Peace Psychology*, 28(3), 314–326. <https://doi.org/10.1037/pac0000626>
- Stefaniak, A., Wohl, M. J. A., Sedikides, C., Smeekes, A., & Wildschut, T. (2021). Different pasts for different political folk: Political orientation predicts collective nostalgia content. *Frontiers in Political Science*, 3, 633688. <https://doi.org/10.3389/fpos.2021.633688>
- Sterling, J., Jost, J. T., & Bonneau, R. (2020). Political psycholinguistics: A comprehensive analysis of the language habits of liberal and conservative social media users. *Journal of Personality and Social Psychology*, 118(4), 805–834. <https://doi.org/10.1037/pspp0000275>
- Stern, C., West, T. V., Jost, J. T., & Rule, N. O. (2013). The politics of gaydar: Ideological differences in the use of gendered cues in categorizing sexual orientation. *Journal of Personality and Social Psychology*, 104(3), 520–541. <https://doi.org/10.1037/a0031187>
- Taylor, S., & Asmundson, G. J. G. (2021). Negative attitudes about facemasks during the COVID-19 pandemic: The dual importance of perceived ineffectiveness and psychological reactance. *PLoS ONE*, 16(2), e0246317. <https://doi.org/10.1371/journal.pone.0246317>
- Teeny, J. D., Siev, J. J., Briñol, P., & Petty, R. E. (2021). A review and conceptual framework for understanding personalized matching effects in persuasion. *Journal of Consumer Psychology*, 31(2), 382–414. <https://doi.org/10.1002/jcpy.1198>

- Tetlock, P. E., Hannum, K. A., & Micheletti, P. M. (1984). Stability and change in the complexity of senatorial debate: Testing the cognitive versus rhetorical style hypotheses. *Journal of Personality and Social Psychology, 46*(5), 979–990. <https://doi.org/10.1037/0022-3514.46.5.979>
- Thorisdottir, H., Jost, J. T., Liviatan, I., & Shrout, P. E. (2007). Psychological needs and values underlying left-right political orientation: Cross-national evidence from Eastern and Western Europe. *Public Opinion Quarterly, 71*(2), 175–203. <https://doi.org/10.1093/poq/nfm008>
- Tomkins, S. S. (1963). Left and right: A basic dimension of ideology and personality. In R. W. White (Ed.), *The study of lives* (pp. 388–411). <https://doi.org/10.1037/12238-017>
- Tranter, B. (2011). Political divisions over climate change and environmental issues in Australia. *Environmental Politics, 20*(1), 78–96. <https://doi.org/10.1080/09644016.2011.538167>
- Trope, Y., & Liberman, N. (2010). Construal-level theory of psychological distance. *Psychological Review, 117*(2), 440–463. <https://doi.org/10.1037/a0018963>
- Turner, R. N., & Stathi, S. (2023). Nostalgic intergroup contact and intergroup relations: theoretical, empirical, and applied dimensions. *Current Opinion in Psychology, 51*, 101585. <https://doi.org/10.1016/j.copsyc.2023.101585>
- Unkelbach, C., Fiedler, K., Bayer, M., Stegmüller, M., & Danner, D. (2008). Why positive information is processed faster: The density hypothesis. *Journal of Personality and Social Psychology, 95*(1), 36–49. <https://doi.org/10.1037/0022-3514.95.1.36>
- Unkelbach, C., Koch, A., & Alves, H. (2019). The evaluative information ecology: On the frequency and diversity of “good” and “bad”. *European Review of Social Psychology, 30*(1), 216–270. <https://doi.org/10.1080/10463283.2019.1688474>
- Vail, K. E., Rothschild, Z. K., Weise, D. R., Solomon, S., Pyszczynski, T., & Greenberg, J. (2010). A terror management analysis of the psychological functions of religion.

Personality and Social Psychology Review, 14(1), 84–94.

<https://doi.org/10.1177/1088868309351165>

Van der Toorn, J., Jost, J. T., Packer, D. J., Noorbaloochi, S., & Van Bavel, J. J. (2017). In defense of tradition: Religiosity, conservatism, and opposition to same-sex marriage in North America. *Personality and Social Psychology Bulletin*, 43(10), 1455–1468.

<https://doi.org/10.1177/0146167217718523>

Van Hiel, A., Cornelis, I., & Roets, A. (2007). The intervening role of social worldviews in the relationship between the five-factor model of personality and social attitudes. *European Journal of Personality*, 21(2), 131–148. <https://doi.org/10.1002/per.618>

Van Hiel, A., Onraet, E., Crowson, H. M., & Roets, A. (2016). The relationship between right-wing attitudes and cognitive style: A comparison of self-report and behavioural measures of rigidity and intolerance of ambiguity. *European Journal of Personality*, 30(6), 523–531. <https://doi.org/10.1002/per.2082>

Van Hiel, A., Pandelaere, M., & Duriez, B. (2004). The impact of need for closure on conservative beliefs and racism: Differential mediation by authoritarian submission and authoritarian dominance. *Personality and Social Psychology Bulletin*, 30(7), 824–837. <https://doi.org/10.1177/0146167204264333>

Van Leeuwen, F., & Park, J. H. (2009). Perceptions of social dangers, moral foundations, and political orientation. *Personality and Individual Differences*, 47(3), 169–173. <https://doi.org/10.1016/j.paid.2009.02.017>

Van Prooijen, J. W., Rosema, S., Chemke-Dreyfus, A., Trikaliti, K., & Hormigo, R. (2022). Make it great again: The relationship between populist attitudes and nostalgia. *Political Psychology*, 43(5), 951–968. <https://doi.org/10.1111/pops.12825>

Većkalov, B., Zarzeczna, N., Niehoff, E., McPhetres, J., & Rutjens, B. T. (2021). A matter of time... consideration of future consequences and temporal distance contribute to the

- ideology gap in climate change scepticism. *Journal of Environmental Psychology*, 78, 101703. <https://doi.org/10.1016/j.jenvp.2021.101703>
- Wahl, L. M., & Nowak, M. A. (1999). The continuous prisoner's dilemma: I. Linear reactive strategies. *Journal of Theoretical Biology*, 200(3), 307–321. <https://doi.org/10.1006/jtbi.1999.0996>
- Webb, M. A., & Tangney, J. P. (2022). Too good to be true: Bots and bad data from Mechanical Turk. *Perspectives on Psychological Science*, 17456916221120027. <https://doi.org/10.1177/17456916221120027>
- Weber, E. U., & Stern, P. C. (2011). Public understanding of climate change in the United States. *American Psychologist*, 66(4), 315–328. <https://doi.org/10.1037/a0023253>
- Webster, D. M., & Kruglanski, A. W. (1994). Individual differences in need for cognitive closure. *Journal of Personality and Social Psychology*, 67(6), 1049–1062. <https://doi.org/10.1037/0022-3514.67.6.1049>
- Weil, A. M., & Wolfe, C. R. (2022). Individual differences in risk perception and misperception of COVID-19 in the context of political ideology. *Applied Cognitive Psychology*, 36(1), 19–31. <https://doi.org/10.1002/acp.3894>
- Wells, G. L., & Windschitl, P. D. (1999). Stimulus sampling and social psychological experimentation. *Personality and Social Psychology Bulletin*, 25(9), 1115–1125. <https://doi.org/10.1177/01461672992512005>
- West, E. A., & Iyengar, S. (2022). Partisanship as a social identity: Implications for polarization. *Political Behavior*, 44(2), 807–838. <https://doi.org/10.1007/s11109-020-09637-y>
- Westfall, J., Van Boven, L., Chambers, J. R., & Judd, C. M. (2015). Perceiving political polarization in the United States: Party identity strength and attitude extremity exacerbate the perceived partisan divide. *Perspectives on Psychological Science*, 10(2), 145–158. <https://doi.org/10.1177/1745691615569849>

Wildschut, T., Bruder, M., Robertson, S., van Tilburg, W. A. P., & Sedikides, C. (2014).

Collective nostalgia: A group-level emotion that confers unique benefits on the group. *Journal of Personality and Social Psychology, 107*(5), 844–863.

<https://doi.org/10.1037/a0037760>

Wildschut T., Sedikides C., Arndt J., Routledge C. (2006). Nostalgia: Content, triggers, functions. *Journal of Personality and Social Psychology, 91*(5), 975–993.

<https://psycnet.apa.org/doi/10.1037/0022-3514.91.5.975>

Wildschut, T., Sedikides, C., Routledge, C., Arndt, J., & Cordaro, F. (2010). Nostalgia as a repository of social connectedness: The role of attachment-related avoidance. *Journal of Personality and Social Psychology, 98*(4), 573–586.

<https://doi.org/10.1037/a0017597>

Wilson, G. D. (1973). *The psychology of conservatism*. Academic Press.

Wilson, J. L. (2014). *Nostalgia: Sanctuary of meaning*. University of Minnesota Libraries Publishing. <http://hdl.handle.net/11299/189216>

Wohl, M. J. A., Stefaniak, A., & Smeekes, A. (2020a). Days of future past: Concerns for the group's future prompt longing for its past (and ways to reclaim it). *Current Directions in Psychological Science, 29*(5), 481–486. <https://doi.org/10.1177/0963721420924766>

Wohl, M. J., Stefaniak, A., & Smeekes, A. (2020b). Longing is in the memory of the beholder: Collective nostalgia content determines the method members will support to make their group great again. *Journal of Experimental Social Psychology, 91*, 104044.

<https://doi.org/10.1016/j.jesp.2020.104044>

Woitzel, J., & Koch, A. (2022). Ideological prejudice is stronger in ideological extremists (vs. moderates). *Group Processes & Intergroup Relations, 0*(0).

<https://doi.org/10.1177/13684302221135083>

- Wojcieszak, M., & Warner, B. R. (2020). Can interparty contact reduce affective polarization? A systematic test of different forms of intergroup contact. *Political Communication, 37*(6), 789–811. <https://doi.org/10.1080/10584609.2020.1760406>
- Wolf, L. J., Haddock, G., Manstead, A. S., & Maio, G. R. (2020). The importance of (shared) human values for containing the COVID-19 pandemic. *British Journal of Social Psychology, 59*(3), 618–627. <https://doi.org/10.1111/bjso.12401>
- Wolf, L. J., Hanel, P. H., & Maio, G. R. (2021). Measured and manipulated effects of value similarity on prejudice and well-being. *European Review of Social Psychology, 32*(1), 123–160. <https://doi.org/10.1080/10463283.2020.1810403>
- Wolff, C. (2021). Republicans and Democrats in different worlds on climate change, *The Chicago Council on Global Affairs*. Retrieved from <https://policycommons.net/artifacts/2229857/republicans-and-democrats-in-different-worlds-on-climate-change/2987289/>
- Wolsko, C., Ariceaga, H., & Seiden, J. (2016). Red, white, and blue enough to be green: Effects of moral framing on climate change attitudes and conservation behaviors. *Journal of Experimental Social Psychology, 65*, 7–19. <https://doi.org/10.1016/j.jesp.2016.02.005>
- Zaller, J. (1992). *The nature and origins of mass opinion*. Cambridge University Press.
- Zherebin, V. M., Vershinskaia, O. N., & Makhrova, O. N. (2015). The modern perception of time and acceleration of the pace of life. *Sociological Research, 54*(3), 189–202. <https://doi.org/10.1080/10610154.2015.1098297>
- Zmigrod, L. (2020). The role of cognitive rigidity in political ideologies: Theory, evidence, and future directions. *Current Opinion in Behavioral Sciences, 34*, 34–39. <https://doi.org/10.1016/j.cobeha.2019.10.016>