Montana State University Library publication

Narratives and the Policy Process

Applications of the Narrative Policy Framework

Edited by Michael d jones / mark k mcbeth / Elizabeth A Shanahan

Acknowledgements

Mike Jones would like to thank Jennifer Jones, for inspiring his intellectual journey each and every day with her bottomless compassion and patience; the ever growing Jones clan: Tristen, Makalie, Nate, Sadie, Ellie, Natalie, Will, Stevie, and Christopher Jr., for always giving me perspective and purpose; to Liz and Mark: you two are the most amazing people a guy could ever claim as friends and collaborators; and, thank you to the NPF community, for being the curious, welcoming, critical, and loving lot that you are!

Mark McBeth wants to acknowledge Liz Shanahan and Mike Jones for sticking with me for almost a quarter century. He also wants to acknowledge his colleague Donna Lybecker and graduate student Jessica Sargent for their outstanding work on the chapter presented in this edited volume.

Liz Shanahan would first like to offer the deepest thanks for authors' patience in the time it has taken to pull this book together. Second, open access of this edited volume is due to the expertise and commitment MSU Library personnel to Open Educational Resources—Christina Trunnell, Leila Sterman, and Doralyn Rossmann. Liz is also grateful to the NPF community writ large, for expanding the use of the NPF across policy domains and contexts, for innovating methodological approaches, and improving the precision of the NPF.

TABLE OF CONTENTS

CHAPTER 1: A BRIEF INTRODUCTION TO THE NARRATIVE POLICY FRAMEWORK

Michael D. Jones*, University of Tennessee
Mark K. McBeth, Idaho State University
Elizabeth A. Shanahan, Montana State University

*Corresponding author: mjone239@utk.edu

To cite chapter: Jones, Michael D., Mark K. McBeth, and Elizabeth A. Shanahan. 2022. "A Brief Introduction to the Narrative Policy Framework", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 1-12. DOI: 10.15788/npf1

A long history of literature describes how stories are central to how humans understand and communicate about the world around them (e.g., Polkinghorne, 1988). The NPF applies these discoveries to the policy process, whereby narratives are meaning-making tools used to capture attention and influence policy outcomes (Shanahan, Jones, and McBeth, 2015). Conceived at the Portneuf School of Narrative (McBeth, 2014) in the early part of the century (e.g., McBeth and Shanahan, 2004) and formally named in 2010 (Jones & McBeth, 2010), the Narrative Policy Framework's (NPF) initial purpose was to scientifically understand the relationship between narratives and the policy process (Shanahan, Jones, and McBeth, 2011). Since its seminal naming, the NPF's charter has expanded to non-scientific approaches (Gray & Jones, 2015; Jones and Radaelli, 2015), to science and policy communication (Crow and Jones, 2018; Guenther and Shanahan, 2020; Jones & Crow, 2017; Lybecker, McBeth, Kusko, 2013; Raile et al., 2022), as well as proclaiming normative commitments to both science and democracy (Jones & McBeth, 2020; Shanahan, Jones, and McBeth, 2015). Recently, guideline publications have also been produced that provide detailed instructions about how to conduct NPF research (Shanahan, Jones, and McBeth, 2018; Jones, McBeth, Shanahan, Smith-Walter, and Song, 2022). Along the way several summary pieces have chronicled the NPF's development (Jones, Shanahan, and McBeth, 2014; Jones, 2018; McBeth, Jones, and Shanahan, 2014; Shanahan, Jones, and McBeth, 2015; Shanahan, Jones, McBeth, and Radaelli, 2018). Two of these NPF assessments were part of larger collections of NPF studies, including the 2014 edited volume *The Science of Stories* (Jones, Shanahan, and McBeth, 2014) and a special NPF symposium issue featured in the *Policy Studies Journal* (Jones, 2018). On par with NPF collections emerging every four years, here we offer a third collection of NPF studies that represent some of the best NPF studies to date. This introductory chapter provides a brief overview of the NPF and is followed by a short introduction to the contents of this volume.

THE NARRATIVE POLICY FRAMEWORK

Heuristically drawing on the model, theory, and framework distinctions of Elinor Ostrom (e.g., 2011; Schlager, 1999; 2007), we describe the NPF as a framework because the NPF is a way to identify, organize, and understand concepts and their relationships to other concepts within the policy process. For example, an obvious concept with which the NPF is concerned is policy narratives; in turn, an obvious relationship of interest for the NPF is that between policy narratives and public policy. Of course, there are many other policy relevant concepts that the NPF incorporates (e.g., focusing events, coalitions, and institutions), but the gist of the NPF as a policy process framework is that it organizes the relationships among those theoretical concepts toward the goal of helping researchers and policymakers develop expectations about public policy. Working from the framework heuristic, we further draw on Imre Lakatos' (1970) understanding of scientific research programs, which are understood to be founded upon unstated assumptions that are rarely tested. From said assumptions, researchers are able to derive testable hypotheses. Like Lakatos suggests, NPF assumptions are usually untested[1]; unlike most policy process approaches, the NPF explicitly identifies her assumptions. The following is a summary of NPF assumptions (see also Jones, 2018; Shanahan et at., 2018).

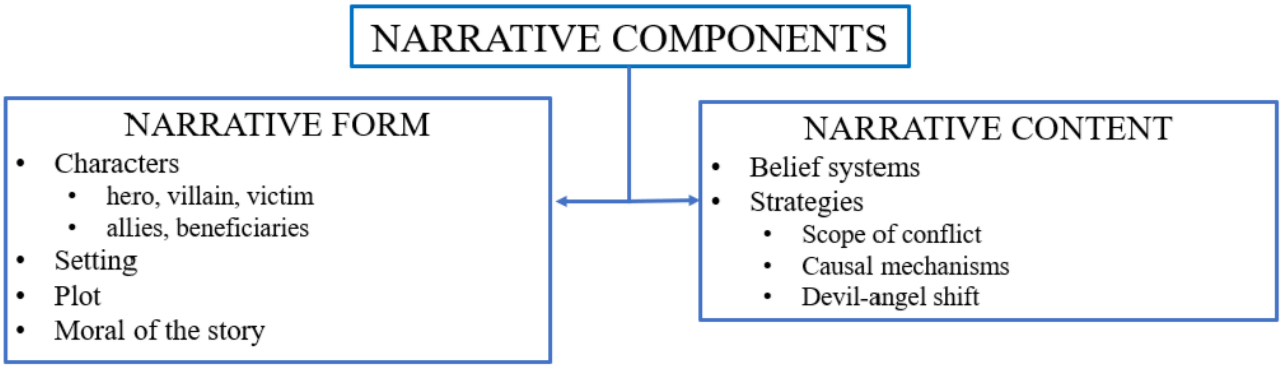
Assumptions

1. Social construction of policy realities. There is a reality independent of our ability to perceive it. However, the NPF assumes that it is the *perceptions* and *interpretations* of that reality (i.e., social construction) that matters for public policy.
2. Bounded relativity. As people interpret the world around them, the meanings with which they imbue various objects, concepts, and relationships can vary to create different policy realities. However, the possible interpretations are not limitless, nor are they random. The NPF assumes that the relativity of meaning-making is bound by the systematized ways people regularly use to make sense of the world around them, such as their identities and belief systems or the strategies they use to organize concepts, objects and relationships to instrumentally engage the world.
3. Narrative generalizability. In contrast to narrative literature in public policy that precedes the NPF (e.g., Fischer, 2003), the NPF adopts a structuralist approach to narrative (e.g., Shenhav, 2015), where narratives contain identifiable and measurable elements (e.g., characters, setting). As such, it is appropriate to categorize, count, and perform statistical operations on policy narratives across policy contexts.
4. Three levels of analysis. The NPF identifies three levels of analysis. The micro-level focuses on the narratives of individuals. The meso-level captures group and coalition level narratives.The macro-level focuses on the broad narratives of cultures and institutions that provide ideational boundaries for micro- and meso-level narratives. While often examined as discrete levels, the NPF assumes interaction between levels of analysis.
5. Homo narrans. From an amalgamation of theorizing and research findings across diverse academic fields, the NPF identifies ten postulates (Shanahan, Jones, McBeth, and Radaelli, 2018, p.180-183) that culminate in the homo narrans assumption, which states that narrative is the primary means by which people process information, communicate, and reason.

Policy Narrative Components and Elements

To elucidate narrative generalizability (assumption three above), the NPF draws on a distinction often drawn by narratologists (see Jones and McBeth, 2010 pp. 331-339) to disaggregate narratives into two component categories: narrative form and narrative content. Narrative form captures the concepts that are theorized to be generalizable across time and space. That is, these concepts can be found within policy narratives, regardless of context. Narrative content refers to more specific—but potentially generalizable—concepts and relationships found within policy narratives, specifically belief systems and narrative strategies.

Figure 1. Narrative Components



Narrative Form

The NPF assumes that policy narratives are objects in the world that can be further disaggregated into constituent concepts, termed narrative elements. Although not strictly limited to four, the NPF's most common elements are as follows:

1. The *setting* is where the action takes place. It is the narrated context of the policy narrative and contains policy consequential information that the narrator determines to be relevant. Such information includes but is not limited to geography, demographics, legal rules and structures, evidence, and any other policy consequential information deemed relevant by the narrator. Facets of the setting can be either taken-for-granted or contested. In all settings, some information will be foregrounded, other information will be backgrounded, and some information will be left out altogether.
2. *Characters* are the actors portrayed in a policy narrative. Typically, the NPF has defined these characters as victims who are harmed or potentially harmed, villains responsible for the harm, and heroes who bring promise of ending the harm. Other characters (e.g., beneficiaries, allies, and others), though less common in NPF research, are also possible to operationalize.
3. *Plots* situate the characters within the setting and establish relationships between different characters, as well as facets of the setting.
4. The *moral* is the point of the narrative. Typically, in a policy narrative the moral is either a policy solution or a call to action.

Narrative Content

While NPF theorizing holds that elements of narrative form are more easily replicated and generalized, narrative content has been notoriously difficult to generalize. It has been convincingly argued[2] that the interactions between the narrator, the narrative, the context in which it is delivered, and the individual receiving the narrative leads to a *sui generis* experience—a one of a kind instance that defies replicability. In simpler terms, a narrative about Swiss Child and Adult Protection Authorities (Kuenzler, 2021) is different than COVID-19 policy response narratives (Mintrom, Rublee, and Bonotti, 2021), and when, where, and how the story is told changes its meaning, even if only ever so slightly. Within the NPF, we refer to this phenomenon as the problem of narrative relativity (Jones, McBeth, and Shanahan, 2014). While the NPF recognizes that narrative content and the experience of it has considerable variation, we reject that this variation is random (which a *sui generis* position on narrative would have to argue). This is the NPF's second assumption of bounded relativity; anyone who has dealt with actual human beings would quickly recognize that people have very entrenched ways of making sense of the world around them. Thus, to generalize narrative content means identifying those systems, as they occur across populations of interest, within specific contexts. The NPF does not claim to eradicate this formidable problem of narrative relativity, but it does offer two approaches that moderate the problem by capturing the systematic boundedness of human rationality.

Belief systems are the NPF's first approach to moderating the problem of narrative relativity that allow for reliably generalizing the meanings of specific narrative content. When people come into contact with a narrative (or, any information for that matter), they do so with the baggage of their experiences and the systemized ways that they already possess for making sense of those experiences. Many of these systemized ways of meaning-making are derivative of the various groups with which individuals identify. Thankfully, researchers from many academic disciplines have devoted considerable attention to figuring out what these belief systems are and how they work. An obvious choice within the United States (US) context is political ideology. Due to the two-party system within the US many policy issues, once popularized, flatten out into a single dimension of left-right, with liberals and conservatives occupying their side of the respective dimension. So, for example, if conservatives and liberals are presented with an intendedly "neutral" policy narrative about the efficacy of COVID-19 vaccinations in late 2020, we would find that conservatives view the vaccines negatively, while liberals view them positively (Jiang et al, 2021). Ideology works similarly for many issues and the concepts, objects, and relationships related to those issues. However, not every issue is a US-based ideological issue and finding the appropriate and theoretically-based belief system for the issue and its context is key. To that end, NPF researchers have found many belief systems useful within varied contexts, including cultural theory (Jorgensen, Song, and Jones, 2018) and Lakoff's moral politics theory (Knackmuhs, Farmer, and Knapp, 2020), among others.

Strategies are the second way to moderate the problem of narrative relativity. Similar to belief systems, people regularly manipulate narratives to suit their needs. That is, we strategically construct narrative to persuade, to elicit sympathy, to entertain, and so on. Within these broader narrative goals are systematized permutations that are deployed by narrators, despite narrative contexts, thereby allowing NPF researchers to generalize. Common strategies examined within the NPF include scope of conflict (e.g., Stephan, 2020), the devil/angel shift (e.g., Merry, 2019), and causal mechanisms (Shanahan, Adams, Jones, and McBeth, 2014).

Narrative Form and Content

Existing NPF orthodoxy defines policy narratives as minimally consisting of at least one character and some reference to the policy or issue (Shanahan, Jones, McBeth, and Lane, 2013). Above and beyond this minimal definition, NPF researchers frequently assess policy narratives in terms of their narrativity (McBeth, Shanahan, Anderson, and Rose, 2012), where the total number of elements (characters, plot, beliefs, etc.) are summed to determine how "much" narrative is actually present in a given text (e.g., Boscarino, 2020; Huda, 2018).

It is from the above concepts and their posited relationships with other concepts within the framework, that NPF hypotheses and propositions are derived and tested. It is beyond the scope of this introductory overview chapter to cover these hypotheses and propositions in depth. However, interested readers can find collections of NPF hypotheses and discussions of relevant findings within many of the overviews of the framework (Jones, Shanahan, and McBeth, 2014; Jones, 2018; McBeth, Jones, and Shanahan, 2014; Shanahan, Jones, and McBeth, 2015; Shanahan, Jones, McBeth, and Radaelli, 2018).

THE CONTENTS OF THIS VOLUME

Now that you are familiar with the basics of the NPF, the following discussion provides a brief summary of each of the contributions to the edited volume. Chapters 2 and 3 (Gupta et al., 2022; Wolton, Crow, and Heikkila, 2022) represent advanced methods used in the application of the NPF. Chapters 4 and 5 (Lybecker, McBeth, and Sargent, 2022; Peterson, Zanocco, and Smith-Walter, 2022) are micro-level NPF studies, and chapters 6 and 7 (Colville and Merry, 2022; Smith-Walter, Fritz, and O'Doherty, 2022) are more focused on the meso-level. Finally, chapters 8 and 9 (Baldoli and Radaelli, 2022; Wolters, Jones, and Duvall, 2022) represent unorthodox approaches using the NPF. Below is a brief summary of each chapter.

Chapter 2, "Discourse Network Analysis of Nuclear Narratives", authored by Kuhika Gupta, Joseph Ripberger, Andrew Fox, Hank Jenkins-Smith, and Carol Silva, (Gupta et al., 2022) combines the NPF with Discourse Network Analysis (DNA) (Leifeld, 2020) to examine nuclear narratives. In doing so the authors seek to merge the two approaches toward the end of producing a general approach to studying policy coalitions. Their study examines the policy narratives of support and opposition to the use of nuclear energy across Twitter, arguing that the NPF and DNA combined provide unique observations that would not be visible to other types of narrative analysis, specifically the potential fissures within coalitions that could threaten coalition stability.

"Stepping Forward: Towards a More Systematic NPF with Automation", Chapter 3 by Laura P. Wolton, Deserai A. Crow, and Tanya Heikkila (Wolton et al, 2022) advances the NPF toward the goal of automated coding. The research presented in this chapter uses semi-automated text analysis to examine the relationship between narrative structural elements and the broader frames that encase them. Over 5,000 state and local news articles related to hydraulic fracturing of oil and gas are examined. Their findings show that, depending on the frame, there is substantial variation in how characters and policy solutions are portrayed.

Chapter 4, "Agreement and Trust: In Narratives or Narrators?", Donna L. Lybecker, Mark K. McBeth, and Jessica M. Sargent (2022), use an online experimental design to examine the role of narrators in shaping respondent trust related to climate change. Leveraging two narratives, one pro and the other anti-climate change, where the narrators are designed to pre-appeal to respondents based on associations with key cultural indicators, this research finds that who is narrating and how that narrator aligns with the priors of individuals plays a substantial role in how

persuasive narratives are. The study contributes to the NPF by providing data on the role of the narrator versus the role of narratives in contentious policy issues like climate change.

The fifth chapter of this edited volume, "Lost in Translation: Narrative Salience of Fear > Hope in Prevention of COVID-19", is written by Holly L. Peterson, Chad Zanocco, and Aaron Smith-Walter (Peterson et al, 2022). Leveraging a survey experiment, the research presented in this chapter deploys short policy-image-like narratives to test the salience of problem and solution COVID-19 narratives. Their findings show that fear is more salient than hope and that neither narrative impacted the likelihood that respondents would abide by CDC COVID-19 guidelines. Consistent with past research (Peterson, 2012), their findings also show that Democrats are more likely to show preferences for fear stories. This study points to potential limitations of narrative persuasion.

"Speaking from Experience: Medicaid Consumers as Policy Storytellers", Chapter 6, by Kathleen Colville and Melissa K. Merry examines policy narratives associated with the USA state of Kentucky's proposed 2016 Medicaid reforms that were eventually blocked in federal court (Colville and Merry, 2022). Analyzing the policy narratives contained within a random sample of 1100 public comments submitted to the Centers for Medicare and Medicaid Services, this research finds that most of the comments qualified as narratives (vs. non-narratives) and that they formed distinct storylines. One of the contributions of this chapter for NPF research is that it focuses on bottom-up narrative construction and also illuminates the potential importance of public comments as sources of policy narrative data.

Chapter 7, "Sanctuary Cities, Focusing Events, and the Solidarity Shift: A Standard Measurement of the Prevalence of Victims for the Narrative Policy Framework," by Aaron Smith-Walter, Emily Fritz, and Shannon O'Doherty, examines the phenomenon where cities actively pushed back against US deportation policies (Smith-Walter et al., 2022). Termed "Sanctuary Cities", this research uses NPF guided content analysis to analyze 164 public consumption documents deployed by interest groups involved in the sanctuary city policy debate occurring between 2010 and 2017 within the United States. Findings in this chapter show significant differences in advocate and opponent policy narratives and also reveal a new NPF theoretical concept, termed the solidarity shift. The authors argue that the solidarity shift contributes to the NPF by allowing researchers to better capture the prevalence of victims within policy narratives.

The eighth chapter of this second collection of NPF studies, titled "A Nonviolent Narrative for European Integration", by Roberto Baldoli and Claudio M. Radaelli (Baldoli and Radaelli, 2022), takes the NPF to rarely traversed territory by applying the framework toward an explicitly normative goal. The authors of this chapter ask the question of whether or not the NPF can be used to craft a narrative of European integration to counter populist narratives. To that end, Baldoli and Radaelli explore the foundations of existing populist narratives, present a possible alternative of European integration, and then compare NPF structural elements of each. They answer yes. The NPF can be usefully applied to these kinds of normative goals, which is to our understanding a novel use of the NPF.

Chapter nine, "A Narrative Policy Framework Solution to Understanding Climate Change Framing Research" by Erika Wolters, Michael D. Jones, and Kathryn Duvall (Wolters et al., 2022) also applies the NPF in a novel way. Rather than a traditional NPF study describing individual, group, or institutional policy narratives, or how they are deployed, this chapter leverages the NPF to heuristically organize climate change framing literature and research. Focusing on climate change mitigation and adaptation framing research, the authors argue that climate change framing findings are both incredibly large in number and also incredibly disorganized, to the point of being

unmanageable. They then proceed to organize climate change research findings along NPF structural dimensions--or, rather, in story form. The authors argue that by reorganizing the literature in this way, the NPF improves the likelihood that climate change framing research will be used by fellow researchers and also makes it easier to communicate scientific findings to the public and important decision makers.

Chapter 10, "Innovations and Future Directions for the Narrative Policy Framework" (Shanahan, McBeth, and Jones, 2022) highlights the innovations found in these chapters. This chapter highlights this volume's new applications of traditional NPF concepts, introduction of new NPF concepts, new methods used in the NPF context, and new applications of the NPF. We reflect on how the compilation of these works in this volume is a step toward representing the complexities of narrative and policy processes as well as the normative dimensions of these inquiries.

CONCLUSION

In a period of history where public policy making increasingly revolves around competing narratives, the NPF will no doubt play a crucial role in helping us understand how and why narratives are produced and how and why certain narratives are preferred over others and by whom. Thus, we believe that independent of the specific policy issues covered in this volume, the NPF's relevance is tied specifically to its theoretical utility. This volume demonstrates and showcases that utility. The chapters cover a host of issues (climate change, medical coverage, European integration, hydraulic fracturing, nuclear energy, COVID-19, and sanctuary cities) and policy narrative concepts (e.g., characters, narrator, solidarity shift). Given the breadth of topics and the various theoretical aspects of the NPF that are covered in each of the chapters, we expect most policy scholars will find something of value within the volume, whether you are a long-time reader of the NPF or someone just becoming acquainted with the framework. But you need not take our word for it. The volume is open access and free to all. All that is required is your time.

REFERENCES

Baldoli, Roberto and Claudio M. Radaelli. 2022. "A Nonviolent Narrative for European Integration", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 197-221. doi.org/10.15788/npf8

Boscarino, Jessica E. 2020. "Constructing Visual Policy Narratives in New Media: The Case of the Dakota Access Pipeline". *Information, Communication & Society,* 1– 17.

Colville, Kathleen and Melissa K. Merry. 2022. "Speaking from Experience: Medicaid Consumers as Policy Storytellers", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 138-165. doi.org/10.15788/npf6

Crow, Deserai and Michael D. Jones. 2018. "Narratives as Tools for Influencing Policy Change," *Policy and Politics* 46(2), 217-234.

Fischer, Frank. 2003. *Reframing Public Policy: Discursive Politics and Deliberative Practices*. Oxford: Oxford University Press.

Gray, Gary and Michael D. Jones. 2016. "A Qualitative Narrative Policy Framework?: Examining the Policy Narratives of US Campaign Finance Reform." *Public Policy and Administration* 31(3), 193-220: DOI: 10.1177/0952076715623356

Guenther, Sara K., and Elizabeth A. Shanahan. 2020. "Communicating Risk in Human-Wildlife Interactions: How Stories and Images Move Minds." *PLoS one* 15(12): e0244440. https://doi.org/10.1371/journal.pone.0244440

Gupta, Kuhika, Joseph Ripberger, Andrew Fox, Hank Jenkins-Smith, and Carol Silva. 2022. "Discourse Network Analysis of Nuclear Narratives", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 13-39. doi.org/10.15788/npf2

Huda, Juhi. 2018. "An Examination of Policy Narratives in Agricultural Biotechnology Policy in India". *World Affairs* 181(1): 10.1177/ 0043820018783046

Jiang, Xiaoya, Min-Hsin Su, Juwon Hwang, Ruixue Lian, Markus Brauer, Sunghak Kim, and Dhavan Shah. 2021. "Polarization Over Vaccination: Ideological Differences in Twitter Expression About COVID-19 Vaccine Favorability and Specific Hesitancy Concerns." *Social Media+Society* 7(3): 20563051211048413.

Jones, Michael D. 2018. "Advances in the Narrative Policy Framework?: Insights from a Potentially Unreliable Narrator." *Policy Studies Journal* 46(4), 724-746.

Jones, Michael D., and Deserai Crow. 2017. "How Can We Use the 'Science of Stories' to Produce Persuasive Scientific Stories?" *Palgrave Communications*. 3(1), 1-9.

Jones, Michael D. and Mark K. McBeth. 2010. "A Narrative Policy Framework: Clear Enough to Be Wrong?" *Policy Studies Journal* 38 (2), 329-353. DOI: 10.1111/j.1541-0072.2010.00364.x

Jones, Michael D., and Mark K. McBeth. 2020. "Narrative in the Time of Trump: Is the Narrative Policy Framework Good Enough to be Relevant?" *Administrative Theory & Praxis* 42(2), 91-110.

Jones, Michael D. and Claudio M. Radaelli. 2015. "The Narrative Policy Framework: Child or Monster?" *Critical Policy Studies 9* (3), 339-355. DOI: 10.1080/19460171.2015.1053959

Jones, Michael D., Mark K. McBeth, and Elizabeth A. Shanahan. 2014. "Introducing the Narrative Policy Framework." In *The Science of Stories: Applications of the Narrative Policy Framework*, edited by Michael D. Jones, Elizabeth A. Shanahan, and Mark K. McBeth. New York: Palgrave, 1-25.

Jones, Michael D., Mark K. McBeth, Elizabeth Shanahan, Aaron Smith-Walter, and Geoboo Song. 2022. "Conducting Narrative Policy Framework Research: From Theory to Methods" in *Methods of the Policy Process*, Christopher M. Weible and Samuel Workman (eds), Routledge, 137-180.

Jorgensen, Paul D., Geoboo Song, and Michael D. Jones. 2018. "Public Support for Campaign Finance Reform: The Role of Policy Narratives, Cultural Predispositions, and Political Knowledge in Collective Policy Preference Formation. *Social Science Quarterly* 99(1), 216– 230: DOI:10.1111/ ssqu.12357

Knackmuhs, Eric, James Farmer, and Doug Knapp. 2020." The Interaction of Policy Narratives, Moral Politics, and Criminal Justice Policy Beliefs". *Politics & Policy* 48(2), 288– 313. DOI:10.1111/ polp.12343

Kuenzler, Johanna. 2021. "From Zero to Villain: Applying Narrative Analysis in Research on Organizational Reputation." *European Policy Analysis* 7(S2), 405-424.

Lakatos, Imre. 1970. "Falsification and the Methodology of Scientific Research Programmes." In *Criticism and the Growth of Knowledge*, ed. Imre Lakatos, and Alan Musgrave. Cambridge: Cambridge University Press, 170–96.

Leifeld, Philip. 2020. "Policy Debates and Discourse Network Analysis: A Research Agenda". *Politics and Governance*, 8(2), 180–183. https://doi.org/10.17645/pag.v8i2.3249

Lybecker, Donna L., Mark K. McBeth, and Elizabeth Kusko. 2013. "Trash or Treasure: Recycling Narratives and Reducing Political Polarization." *Environmental Politics* 22(2), 312-332. DOI: 10.1080/09644016.2012.692935

Lybecker, Donna L., Mark K. McBeth, and Jessica M. Sargent. 2022. "Agreement and Trust: In Narratives or Narrators?", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 91-115. doi.org/10.15788/npf4

McBeth, Mark .K, Michael .D Jones, and Elizabeth A. Shanahan, 2014. 'Preface: The Portneuf school of narrative. *The Science of Stories: Applications of the Narrative Policy Framework in Public Policy Analysis*.In *The Science of Stories: Applications of the Narrative Policy Framework*, edited by Michael D. Jones, Elizabeth A. Shanahan, and Mark K. McBeth. New York: Palgrave, xiii-xviii.

McBeth, Mark K., Michael D. Jones, and Elizabeth A. Shanahan. 2014. "The Narrative Policy Framework." In *The Theories of the Policy Process,* 3rd Ed., edited by Paul A. Sabatier and Christopher M. Weible. Boulder, CO: Westview Press, 225-266.

McBeth, Mark K. and Elizabeth A. Shanahan. 2004. "Public Opinion for Sale: The Role of Policy Marketers in Greater Yellowstone Policy Conflict." *Policy Sciences* 37(3): 319-338. DOI: 10.1007/s11077-005-8876-4

Merry, Melissa .2019. "Angels Versus Devils: The Portrayal of Characters in the Gun Policy Debate". *Policy Studies Journal* 47(4), 882– 904.

Mintrom, Michael, Maria Rost Rublee, Matteo Bonotti, and Steven T. Zech. 2021. "Policy Narratives, Localisation, and Public Justification: Responses to COVID-19." *Journal of European Public Policy* 28(8), 1219-1237.

Ostrom, Elinor. 2011. "Background on the Institutional Analysis and Development Framework." *Policy Studies Journal* 39(1), 7-27.

Peterson, Holly L. 2021. "Narrative Policy Images: Intersecting Narrative & Attention in Presidential Stories about the Environment." *Policy Studies Journal*, earlyview: https://doi.org/10.1111/psj.12447.

Peterson, Holly L., Chad Zanocco, and Aaron Smith-Walter. 2022. "Lost in Translation: Narrative Salience of Fear>Hope in Prevention of COVID-19", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 116-137. doi.org/10.15788/npf5

Polkinghorne, Donald E. 1988. *Narrative knowing and the human sciences*. Albany, NY: Suny Press.

Raile, Eric D., Elizabeth A. Shanahan, Richard C. Ready, Jamie McEvoy, Clemente Izurieta, Ann Marie Reinhold, Geoffrey C. Poole, Nicolas T. Bergmann & Henry King. 2022, "Narrative Risk Communication as a LinguaFranca for Environmental Hazard Preparation", *Environmental Communication* 16:1, 108-124, DOI: 10.1080/17524032.2021.1966818

Schlager, Edella. 1999. "A Comparison of Frameworks, Theories, and Models of Policy Processes."In *Theories of the Policy Process*, ed. Paul A. Sabatier. Boulder, CO: Westview Press, 233–60.

Schlager, Edella 2007. "A Comparison of Frameworks, Theories, and Models of Policy Processes." In *Theories of the Policy Process*, ed. Paul A. Sabatier. Boulder, CO: Westview Press, 293–320.

Shanahan, Elizabeth A., Mark K. McBeth, and Michael D. Jones. 2022. "Innovations and Future Directions for the Narrative Policy Framework", in Narratives and the Policy Process: Applications of the Narrative Policy Framework, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 243-249; doi.org/10.15788/npf10

Shanahan, Elizabeth A., Michael D. Jones, and Mark K. McBeth. 2011. "Policy Narratives and Policy Processes." *Policy Studies Journal* 39(3), 535-561. DOI: 10.1111/j.1541-0072.2011.00420.x

Shanahan, Elizabeth A., Michael D. Jones, Mark K. McBeth, and Ross Lane. 2013. "An Angel on the Wind: How Heroic Policy Narrative Shape Policy Realities." *Policy Studies Journal* 41(3), 453-483: https://doi.org/10.1111/psj.12025

Shanahan, Elizabeth A., Stephanie M. Adams, Michael D. Jones, and Mark K. McBeth. 2014. "The Blame Game: Narrative Persuasiveness of the Intentional Causal Mechanism." Michael D. Jones, Elizabeth A. Shanahan, and Mark K. McBeth, eds. *The Science of Stories: Applications of Narrative Policy Framework*: New York, New York: Palgrave Macmillan, 69-88.

Shanahan, Elizabeth A., Michael D. Jones, and Mark K. McBeth. 2015. "Narrative Policy Framework." Melvin Dubnick and Domonic Bearfield, eds. *The Encyclopedia of Public Administration and Public Policy*, 3rd Edition. New York, New York: Taylor and Francis. :http://www.crcnetbase.com/doi/10.1081/E-EPAP3-120053656

Shanahan, Elizabeth A., Michael D. Jones, and Mark K. McBeth. 2018. "How to Conduct a Narrative Policy Framework Study." *Social Science Journal* 55(3): 332-345: https://doi.org/10.1016/j.soscij.2017.12.002

Shanahan, Elizabeth, Michael D. Jones, Mark K. McBeth and Claudio M. Radaelli, 2017. "The Narrative Policy Framework", in *Theories of the Policy Process, 4th Edition*, Chris Weible & Paul Sabatier (ed). Westview Press, 173-213.

Shenhav, Shaul R. 2015. *Analyzing Social Narratives.* New York, New York: Routledge.

Smith-Walter, Aaron, Emily Fritz, and Shannon O'Doherty. 2022. "Sanctuary Cities, Focusing Events, and the Solidarity Shift: A Standard Measurement of the Prevalence of Victims in the Narrative Policy Framework", in *Narratives and the Policy Process: Applications of*

the Narrative Policy Framework, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 166-196. doi.org/10.15788/npf7

Stephan, Hanes R. 2020. Shaping the Scope of Conflict in Scotland's Fracking Debate: Conflict Management and the Narrative Policy Framework. *Review of Policy Research* 37(1), 64-9: DOI:10.1111/ ropr.12365

Wolters, Erika Allen, Michael D. Jones, and Kathryn Duvall. 2022. "A Narrative Policy Framework Solution to Understanding Climate Change Framing Research", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Elizabeth A. Shanahan, and Mark K. McBeth (eds.), Montana State University Library, 222-242. doi.org/10.15788/npf9

Wolton, Laura P., Deseai A. Crow, and Tanya Heikkila. 2022. "Stepping Forward: Toward a More Systematic NPF with Automation", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 40-90. doi.org/10.15788/npf3

CHAPTER 2: DISCOURSE NETWORK ANALYSIS OF NUCLEAR NARRATIVES

Kuhika Gupta*, University of Oklahoma
Joseph Ripberger, University of Oklahoma
Andrew Fox, University of Oklahoma
Hank Jenkins-Smith, University of Oklahoma
Carol Silva, University of Oklahoma

ABSTRACT

This study combines insight from discourse network analysis (DNA) and the Narrative Policy Framework (NPF) to develop a new approach to studying narrative discourse within and across policy coalitions. The approach facilitates examination of narrative cohesion, which may impact the stability of coalitions as well as narrative discourse on policy change. We demonstrate the value of the approach by using it to study meta narratives on Twitter within and across groups of policy actors who support and oppose the expansion of nuclear energy in the United States. The approach reveals a variety of patterns that are unlikely to be seen using more common approaches to narrative policy analysis. Most notably, there were signs of narrative cohesion within both groups, but there were also slight fissures that may indicate strategic efforts to communicate with different constituents or fault lines that threaten group stability. These findings set the stage for future work on the relationship between narrative cohesion and policy outcomes.

*Corresponding author: kuhikagupta@ou.edu

To cite the chapter: Gupta, Kuhika, Joseph Ripberger, Andrew Fox, Hank Jenkins-Smith, and Carol Silva. 2022. "Discourse Network Analysis of Nuclear Narratives", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 13-39. DOI: doi.org/10.15788/npf2

INTRODUCTION

Stories help people make sense of the world. Policy narratives are stories that advocacy groups tell to influence policy outcomes. The Narrative Policy Framework (NPF) has created a systematic way to analyze the structure of policy narratives and how they inform the policy process (Shanahan et al., 2011). According to the NPF, policy narratives have core elements such as a plot, setting, moral, and characters. Policy actors adopt strategies to strengthen/weaken narrative dissemination and influence public support. A core strength of the NPF is its versatility and productivity across policy settings, levels of analysis, methodologies, and types of data.

Researchers have shown that the NPF "works" and provides significant insight into policy dynamics in many different policy areas and policymaking settings (McBeth et al., 2005; Jones & McBeth, 2010; Jones et al., 2014). Likewise, research shows that the NPF explains policy-relevant actions and relationships among individuals, groups, and institutions by spawning variants of the framework that focus on micro, meso, and macro levels of analysis (Shanahan et al., 2018). This variety in where and how researchers are using the NPF generates significant diversity in the methodologies and types of data that researchers are using to test and refine the framework. NPF studies use everything from qualitative interviews and content analysis to descriptive statistics and multiple regression to explore the stories that advocacy groups use to influence policy outcomes (McBeth et al., 2010; Gottlieb et al., 2018; McBeth & Lybecker, 2018; Merry, 2018; Shanahan et al., 2018). In some studies, these stories come from lengthy policy documents like speeches, platforms, and statements at public meetings; in others, the stories come from bits and pieces of information that advocacy groups release in media interviews (Lawlor & Crow, 2018; Merry, 2018; Shanahan et al., 2013; Weible et al., 2016) and on new media platforms like YouTube, Facebook, and Twitter (Shanahan et al., 2013; Merry, 2016; Gupta et al., 2018; Merry, 2020).

This study continues in this tradition of diversity by assessing the utility of discourse network analysis (DNA) for studying intersecting policy narratives among groups of policy actors who share core policy beliefs and goals. DNA is new to the NPF, but network analysis is not. Past research has shown that network maps can assist in illustrating polarization in policy narratives; groups who support and oppose hydraulic fracturing utilize virtually opposite frames and characters in the narratives they use to discuss the issue (Heikkila et al., 2014). Likewise, past work indicates that network analysis can assist in exploring relationships among narrative characters. Weible et al., (2016), for example, use network analysis to show that competing groups often use the same characters, but cast them in completely different roles; one group's hero is often the opposing group's villain. Finally, previous research highlights the utility of network analysis for analyzing the micro narratives that structure group discussion about complex policy issues (Smith-Walter et al., 2020).

Although past research provides insight about relationships among narrative actors and elements, it uses relatively simple network visualizations and concentrates on actors rather than the stories that bind them together. The DNA approach we use is motivated by the need to provide a more complex view of the network interdependencies among not only actors but also narrative elements. Adopting DNA as a methodology, we are able to systematically characterize and compare narrative structures within policy groups. Specifically, we use DNA to explore narrative discourse structures in two different ways. First, we construct and analyze networks of policy actors who share common beliefs. This analysis allows us to study the cohesiveness of narrative discourse within policy groups. Are actors contributing to a single overarching narrative that seems to unite the group? Or are actors using multiple, competing narratives that may undermine group unity or speak to different constituencies? Next, we construct and analyze networks of narrative elements that allow us to investigate the structure of narrative discourse. In so doing, we identify clusters or sets of narrative elements that point to underlying themes and possible cleavages in narrative discourse among actors who share core policy beliefs.

In addressing these questions, we contribute to nascent literature on the role of narrative cohesion in the policymaking process. Broadly, narrative cohesion measures the extent to which

policy actors who share core beliefs use the same narrative elements and strategies when attempting to influence policy outcomes. In cohesive groups, policy actors are on the same page; they use the same plot lines, settings, and characters when publicly discussing policy problems and solutions. In less cohesive groups, policy actors share core beliefs, but use different storylines and feature different characters in those storylines in public dialogue. Past work on the NPF posits that narrative cohesion plays an important role in the policy process. Shanahan et al. (2011), for example, hypothesize that cohesive groups have more influence on policy outcomes than less cohesive groups. Subsequent work, such as Shanahan et al. (2013), reinforces the importance of narrative cohesion but suggests that incohesive groups who amalgamate a variety of storylines and elements might be more effective than cohesive groups because the narratives they use resonate with different constituencies. Which proposition is correct? Researchers have yet to settle this question because it can be difficult to define and operationalize narrative cohesion. DNA helps to solve this problem by allowing us to systematically analyze relationships among narrative actors and elements within policy groups.

Finally, this study also contributes to diversity within the NPF by expanding the use of social media data in narrative analysis. As with network analysis, social media analysis is increasingly common in NPF research, but its use is inconsistent from study to study and there is relatively little theory to guide the data collection process. We address these issues by providing a transparent and replicable data collection methodology that begins with the identification of policy actors and policy beliefs. From there, we explain how to collect and code data using an NPF codebook that we adapt for DNA.

PAST RESEARCH AND CURRENT SYNERGIES

Theories of policy processes often focus on how groups of actors with like beliefs interact to influence policy outcomes; groups who agree with current policy coordinate to collectively maintain the status quo while groups who disagree conspire to bring about policy change. Given the importance of group interaction, many theories of the policy process argue that relationships, group coordination, and collective information processing are key features of the policy process (Sabatier, 1988; Sabatier & Jenkins-Smith, 1993; Baumgartner & Jones, 1991; Roth & Bourgine, 2005). Policy actors coordinate with like-minded groups in multiple ways. In some cases, they *directly* coordinate on tangible actions; for example, they might jointly file a lawsuit or cohost a rally. More frequently, they *indirectly* coordinate by co-contributing to public debate about a policy; for example, actors who share beliefs often comment on proposed rules and regulations and provide testimony at congressional hearings (Weible et al., 2019). In some cases, indirect coordination inspires direct coordination. The public statements that policy actors make can serve as signaling mechanisms to actors who share beliefs and preferences, prompting them to seek one another out and form a coalition to collectively fight for policy outcomes (Sabatier & Jenkins-Smith 1993; Weible & Sabatier, 2017; Jenkins-Smith et al., 2017; Weible & Ingold, 2018; Weible et al., 2019). The NPF provides structure and meaning to these statements, arguing that narratives are the primary means through which policy actors organize, process, and communicate information (Berinsky & Kinder, 2006; Gerrig & Egidi, 2003; Klein, 2003; Jones & McBeth, 2010).

Narrative Policy Framework

The NPF theorizes that policy actors use narratives to shape the policymaking process. Narratives provide policy actors with stories that contain plots, characters, settings, and morals that help communicate policy positions (Jones et al., 2014; Shanahan et al., 2011). Among its core assumptions is the assertion that policy narratives are socially constructed and have specific and identifiable structures in the form they take and the content they share. Narrative form and narrative content make up the core components of a policy narrative. *Form* is illustrated in the policy setting (space and time), characters (heroes, villains, and victims), plot (organizes action), and moral of a story (policy solution). Narrative *content* is made up of the set of values or beliefs encompassed within the narrative as well as narrative strategies geared towards manipulating or controlling the policy processes (Shanahan et al., 2018). This study focuses on one aspect of narrative form: the characters that policy actors use.

Narrative research can be conducted on three levels of analysis: micro, meso, and macro. At the micro level, the focus is on how individuals form narratives and are in turn influenced by narratives they encounter. The meso scale moves the analysis to how groups, coalitions, and organizations construct and share policy narratives to affect outcomes. Macro-scale analysis is characterized by a focus on narratives that are pervasive throughout society, cultures, and institutions and how these macro narratives influence the policy process (Shanahan et al., 2018). Over the years, NPF researchers have studied narratives and their role in the policy process on all three levels of analysis. In this study, we focus on the meso scale by looking at how policy actors interact in groups to collectively shape narrative discourse.

Discourse Network Analysis (DNA)

DNA is an emerging approach to the study of public policy (Ingold, 2011; Leifeld & Haunss, 2012; Leifeld, 2013; Fisher et al., 2013; Rinscheid, 2015; Leifeld, 2016; Wagner & Payne, 2017; Buckton et al., 2019; Fergie et al., 2019; Nagel & Satoh, 2019; Abzianidze, 2020; Bhattacharya, 2020; Bossner & Nagel, 2020; Leifeld, 2020). The theory underlying DNA is that policy discourse is inherently a group activity, wherein individuals and organizations learn and interact with one another to shape the public policy debate. Competing groups of policy actors engage in an interactive exchange of ideas through public statements in an effort to make their positions known, thereby reducing uncertainty and enabling coordination (Hajer, 1993, 1995, 2002; Leifeld & Haunss, 2012; Leifeld, 2013). Much like the NPF, a core assumption underlying DNA is that policy discourse helps individuals and society make sense of the world around them by providing a lens through which to interpret events, ideas, and risks (Goffman, 1974; Kühberger, 1998; Miller, 2000).

To understand and analyze the structure of policy discourse, DNA makes use of networks. Networks represent collections of relationships, identified using graph theory and data visualization to visualize the nodes and edges that connect policy actors (Borgatti et al., 2013; Kadushin, 2012). Actors are typically the nodes in DNA networks and beliefs, perceptions, and preferences are generally the edges that connect the actors (Leifeld, 2017). DNA provides insight into the policy process by systematically analyzing the patterns of nodes and edges—the relationships—that define policy coalitions. Through these efforts, researchers have been able to track the evolution of policy coalitions over time to explain why policy shifts happen as well as

the timing of changes in government pensions (Leifeld, 2013; 2016), software patents (Leifeld & Haunss, 2012), higher education (Naegler, 2015), and consumption taxes (Buckton et al., 2019; Fergie et al., 2019). Researchers have also used DNA to investigate the dynamics of polarization as well as probe the nature of support and opposition to policy change in the context of highly contentious issues, such as climate change (Fisher et al., 2013; Ingold, 2011; Wagner & Payne, 2017), urban development (Nagel & Satoh, 2019), and nuclear energy (Rinscheid, 2015).

In addition to providing insight into the relationship between policy actors within coalitions, DNA integrates network analysis and qualitative content analysis in ways that can help researchers compile and make sense of the information fragments that policy actors share in short public interviews and social media statements (Leifeld, 2017). In isolation, it can be difficult to make sense of each bit of information; when looking at the beliefs, perceptions, and preferences that actors disclose on a tweet-by-tweet basis, it can be difficult to see the forest through the trees.

Though DNA researchers typically focus on the relationship between actors within a network, DNA can also assist in exploring the connection between beliefs, perceptions, and policy preferences in a network (Leifeld, 2013; Rinscheid, 2015; Leifeld, 2016; Buckton, Fergie et al., 2019). In these networks, beliefs, perceptions, and preferences are the nodes and policy actors are the edges that connect them. These networks show us how beliefs, perceptions, and preferences coalesce to form patterns in policy discourse. They show us the beliefs that generate perceptions and the perceptions that stimulate preferences. In other words, they help clarify the system of beliefs that binds policy actors in a network.

In principle, DNA is highly compatible with the NPF. Both approaches embrace the core assumptions of the Advocacy Coalition Framework (ACF). They theorize that policy actors interact in groups to collectively shape policy discourse. Likewise, both approaches suggest that policy discourse can profoundly impact policy outcomes. Finally, both approaches embrace the importance of beliefs, perceptions, and preferences in the policymaking process. The primary distinction between the two approaches is one of focus, not theory. DNA generally focuses on the belief systems that tie policy actors, whereas the NPF focuses on the narratives that unite them. This difference is relatively easy to overcome. With simple modification, DNA can illuminate the study of narratives in the policy process. If we replace beliefs, perceptions, and preferences with narrative elements, we can use DNA to characterize and explore narrative discourse using the two network approaches we describe above.

First, we can construct and analyze narrative networks of policy actors who share narrative content. In these networks, policy actors are the nodes and narrative elements (e.g., characters) define the edges that connect the actors who share commonalities and separate actors who do not. This type of analysis allows us to address core questions about narrative cohesion in policy groups. Are actors with like beliefs contributing to a single overarching narrative that seems to unite the group? Or are they using multiple, competing narratives that may undermine group unity and/or speak to different constituencies in the policy process? Existing hypotheses about narrative cohesion within NPF remain largely untested (Shanahan et al., 2011; Shanahan et al., 2013), and this study could provide a way to measure character prioritization and congruence among a set of policy actors with shared policy beliefs.

Second, we can invert the analysis by constructing and analyzing networks of narrative elements that relate through common actors. In these networks, narrative elements, such as the

characters in a story, are the nodes and policy actors are the edges that delineate the relationship between narrative elements. Using this type of network, we can identify clusters or sets of narrative elements that point to underlying themes in narrative discourse. In this chapter, we demonstrate the utility of both approaches, and DNA more generally, by using them to characterize and explore narrative discourse in opposing coalitions that have long been fighting in support and opposition to nuclear energy in the United States. We use nuclear energy policy in the United States to explore the synergies between DNA and the NPF because nuclear energy policymaking offers a clear set of competing groups who have been telling relatively consistent stories about the technology for many years.

Nuclear Energy in the United States

The nuclear energy policy subsystem in the United States currently consists of two competing coalitions: a pro-nuclear coalition and an anti-nuclear coalition. Supporters of nuclear energy generally emphasize the benefits of low-cost electricity from a reliable, secure, and carbon-free source (de Groot & Steg, 2010). Research suggests that public willingness to accept nuclear energy often depends on the perception that the economic benefits outweigh the cost (Kim et al., 2014). Additionally, public support has been found to be closely tied to trust in government officials, agencies, industry representatives, and plant employees, which tend to lower the perceived risks of nuclear energy and expand public support (Poortinga & Pidgeon, 2003; Whitfield et al., 2009; Besley, 2012). As such, the pro-nuclear coalition has frequently argued that nuclear energy presents concentrated costs and diffused benefits in an effort to continue investment in the development of new technology, licensing, and siting nuclear power plants (Gupta et al., 2018).

Opponents of nuclear energy generally focus on the risks associated with accidents, radiation exposure, and hazardous nuclear waste (Keller et al., 2012; Parkhill et al., 2010). The historical legacy of high-profile accidents at Three Mile Island, Chernobyl, and Fukushima has helped sustain persistent public opposition and widespread attitudes that reflect a not in my backyard (NIMBY) mindset, bringing the nuclear industry to a standstill (Abdulla et al., 2019; Mazmanian & Morrell, 1994). Informed by this mindset, members of the anti-nuclear coalition frequently argue for the elimination of nuclear energy by phasing out existing nuclear power plants and not constructing new facilities in favor of alternative sources of electricity, such as renewables (Gupta et al., 2018). As a result, the anti-nuclear coalition has often pursued a strategy that seeks to expand the number of people involved in the debate over nuclear energy by focusing on the concentrated benefits and diffused costs posed by the risks associated with nuclear power (Gupta et al., 2014; Gupta et al., 2018).

Thus far, work on narratives about nuclear energy, both in the United States and internationally, has focused on how a single group from the pro or anti-nuclear coalition uses narratives to pursue policy goals. This study builds on existing NPF studies on nuclear energy by exploring how multiple policy actors are producing narrative elements in groups and whether groups are using the same elements to engender narrative cohesion.

DATA AND METHODS

Data Collection

Nuclear energy policy is a complex issue that involves many types of policy actors, such as government officials, agencies, non-profit organizations, and issue experts. While this multitude of actors provides a great opportunity to collect a diverse array of data, it also poses challenges. At times, it seems like almost everyone in the policy-making process has something to say about nuclear energy. This can make it difficult to identify relevant policy actors who consistently participate in the policy process and contribute to the policy discourse. Additionally, it can be difficult to identify actors who are members of the pro/anti group among the many isolates who espouse opinions but do not interact with anyone in the group. Finally, it can be difficult to locate a consistent stream of narrative content (data) where actors in groups collectively contribute to narrative discourse.

We attempt to address these challenges by studying narrative discourse on Twitter, a social media platform that policy actors routinely use to shape policy discourse by interacting with fellow policy actors and members of the public. The use of Twitter data to analyze narrative construction and dissemination is not new within the NPF. For example, Merry (2016) examines the debate over gun policy, finding that advocacy groups are able to effectively frame policy issues on Twitter. Taking this line of reasoning even further, Gupta et al. (2018) not only find that policy actors use narratives on Twitter, but they also employ specific strategies on social media that seek to expand or contain the scope of the conflict over nuclear energy policy in the United States. While the use of Twitter data has been increasingly popular among NPF scholars (Gupta et al., 2018; Merry, 2016; Shanahan et al., 2018), its use has been inconsistent from study to study, and there are no systematic guidelines to guide the data collection process. Given the wide array of individuals and organizations that are active on Twitter, as well as the massive amounts of data (tweets) about topics like nuclear energy, a transparent and replicable process for identifying relevant actors and the narrative discourse is imperative.

The process we used involves three steps:

(1) identify relevant policy actors through modes of participation in the policy process;
(2) search Twitter to identify which actors have active accounts and interact with others in the group; and
(3) collect messages and classify narrative discourse.

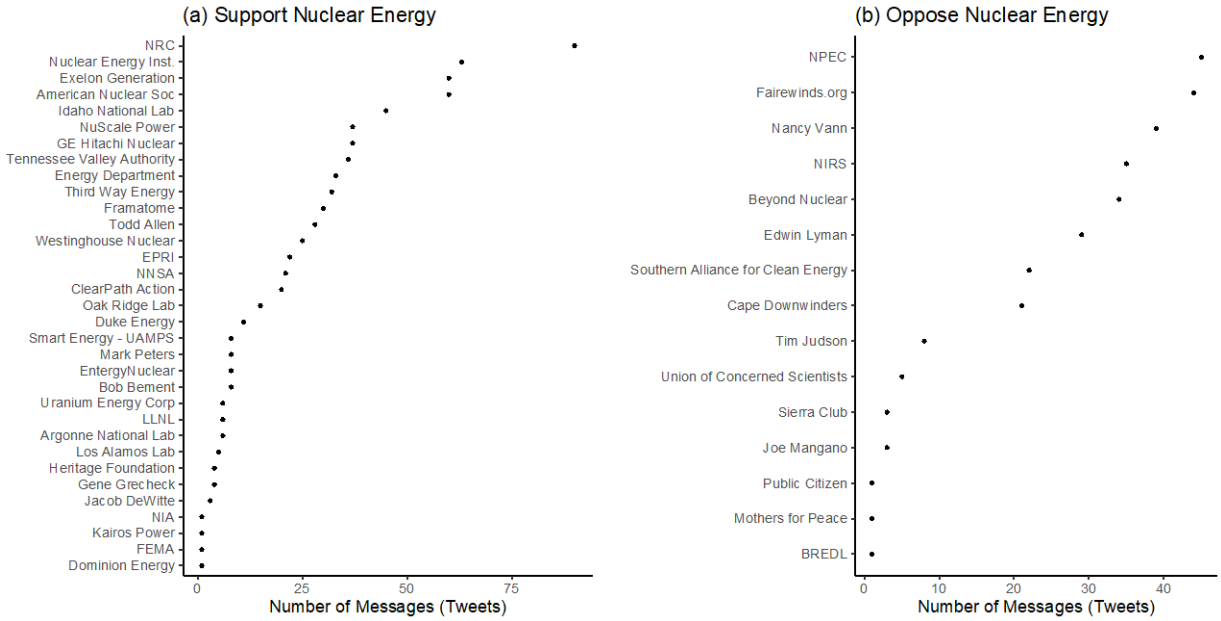
Beginning with step one, we define policy actors as individuals or organizations that formally and routinely participate in the policy process. While there are many ways to formally participate in the policy process, we followed past research in using two forms of participation to identify policy actors in this study: testimony at congressional hearings and comments on regulatory actions (Weible et al., 2019). From 2014 to 2019, there were 46 hearings about nuclear energy in Congress and 101 regulatory actions by the Nuclear Regulatory Commission (NRC); 663 unique individuals or organizations (policy actors) participated in these processes by providing witness testimony or submitting a comment. We reviewed every statement/comment to identify the policy actors that were supportive of nuclear energy and those who were opposed. According to our analysis, 377 were supportive, 238 were opposed, and 48 did not indicate a policy position.

Because we are interested in policy narratives (which require a policy stance), we focused on the actors who indicated a clear position.

In step two, we searched for the 615 actors who indicated a clear policy position on Twitter. We found active accounts for 211 (34.31%) of the actors; 120 of the pro-nuclear actors and 91 of the anti-nuclear actors had active Twitter accounts when this analysis began. After identifying these accounts, we analyzed messages from each actor's account to identify signs of group interaction, which we operationalized as re-tweeting or mentioning a policy actor with a like-policy position. Of the 120 pro-nuclear actors we were able to identify on Twitter, 33 (27.5%) had engaged in some form of interaction with another actor in the pro-nuclear group. Of the 91 anti-nuclear actors, only 15 (16.5%) had engaged in some form of interaction with another actor in the group. Using this list of 48 policy actors with active Twitter accounts, we connected to Twitter's streaming API to capture messages about nuclear energy from January 2019 to June 2019. Together, the 48 actors we identified published 1,026 tweets during this timeframe; 735 of the messages were from pro-nuclear actors, and 291 were from anti-nuclear actors.

Figure 1 lists the policy actors in each of the groups. Though we believe that the methodology we used to identify these actors and collect their messages is transparent and replicable, it is important to note that the Twitter domain is not necessarily representative of the nuclear energy policy domain as a whole. We know that some actors participate in the policy process but do not have or routinely use Twitter accounts. Likewise, the narratives that policy actors espouse on Twitter are not necessarily the same as the narratives they advocate in other public consumption documents. Finally, the timeframe we chose for this analysis necessarily omits the variety of actors and narratives that were not on Twitter from January 2019 to June 2019. We chose to focus on this timeframe because it captures conversation about nuclear energy in relation to the Green New Deal (GND), a resolution in Congress that was put forth by Representative Alexandria Ocasio-Cortez and Senator Edward Markey on February 7, 2019. Among other things, the GND called for the United States "to achieve net-zero greenhouse gas emissions through a fair and just transition for all communities and workers." Nuclear energy became a flashpoint in this conversation because proponents of the GND were torn in their views about the role of nuclear energy in transitioning to net-zero emissions; some believed in President Obama's "all-of-the-above" approach that included nuclear energy; others were explicitly opposed to it.

Figure 1: Policy Actors by Group and Number of Messages



Content Analysis

Given the exploratory nature of this study, we chose to focus on the use of characters (heroes, villains, and victims) as core narrative elements to identify shared narrative discourse. In future research, we intend to expand the analysis to include other narrative elements as well as narrative strategies. Two independent coders manually analyzed each tweet for the presence of characters. Character types were coded according to the NPF codebook, which defines heroes as those who take action to fix a problem, villains as those whose actions harm others, and victims as those being harmed (Jones & McBeth, 2010; Shanahan et al., 2018). Both animate and inanimate objects were considered characters. Moreover, characters were identified if they appeared anywhere in a tweet rather than in conjunction with other elements. In other words, heroes did not have to appear in relation to villains or victims and vice versa.

Coders identified the type of character present (hero, villain, victim), if any, followed by a subtype that fell into one of 35 predefined categories (see Appendix for the codebook). Character subtypes were designed to provide specificity to each character type as it relates to the topic of nuclear energy. Heroes and villains were divided into five subtypes, which were further disaggregated into specific types of characters: business and industry (nuclear energy, nuclear industry representatives, fossil fuels, renewables, technology, advanced nuclear technology, nuclear waste, and business entrepreneurs), environment (carbon emissions, climate change, and physical environmental phenomena), government and public sector (policy and legislation, government officials, and government agencies), cultural and historical (language, events, and historical memories), and other (advocacy organizations, academics, media, general people, and health). Victims were similarly divided into human (humans, children, and communities), wildlife and natural environment (physical environment, animals), economic (jobs, taxpayers, and budgets), cultural and historical (language, events, and historical memories), and other (the state and nuclear energy). While this coding strategy attempts to preserve as much nuance as possible

across the characters that actors use, it is important to note that it generates some abstraction for the sake of comparison. This abstraction may cause fuzziness in the analysis of narrative networks. For example, if different actors use "industry representatives" as villains in their narratives, they will be given the same code, even if they are talking about different individuals or organizations. This will make it look like the actors are telling the same story, even if the story features different people and organizations.

As with all NPF coding projects, there was some subjectivity in the decisions that coders made. However, the kappa coefficients shown in Table 1 suggest that the data are fairly reliable. Using Landis and Koch (1977) as a yardstick, all of the coefficients demonstrate "substantial" inter-rater reliability.

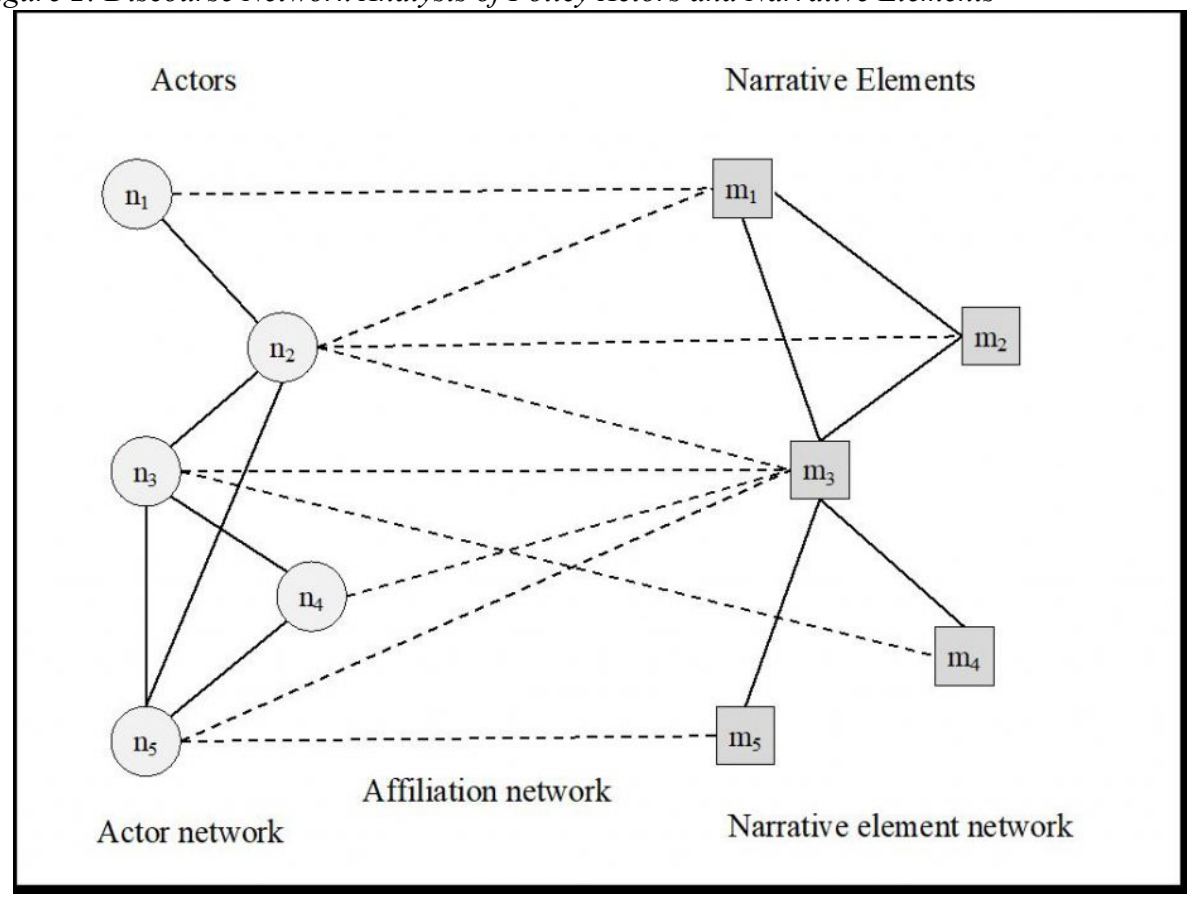
Table 1. Cohen's kappa coefficients (κ)

	Present	Character Subtype
Hero	0.767	0.721
Victim	0.717	0.687
Villain	0.796	0.741

Discourse Network Analysis

Akin to actor-to-actor and concept-to-concept networks in DNA, we constructed two types of networks to depict and statistically analyze narrative discourse from the pro- and anti-nuclear energy groups: (1) networks of policy actors who share narrative elements and (2) networks of narrative elements that relate through common actors. As shown in Figure 2, the networks use cross-network ties (affiliation) to identify ties between the nodes in each of the networks. To construct the network of policy actors, we defined the relationship (adjacency) between actors (n) by detecting instances in which the actors used the same narrative elements (m). For example, actor n_1 (in Figure 2) shares a tie with actor n_2 because they use a common narrative element m_1. We did the opposite to construct the network of narrative elements. We defined the relationship between narrative elements (m) by detecting instances in which the elements were used by the same policy actors (n). For example, narrative element m_1 shares a link with element m_2 because they were used by the same policy actor n_2.

Figure 2: Discourse Network Analysis of Policy Actors and Narrative Elements



In addition to graphically representing and visually analyzing the topology of these networks, we used two network statistics/methods to analyze narrative discourse from the pro- and anti-nuclear energy groups. First, we calculated degree centrality scores to measure the number of connections that each node (actor/narrative element) in the network had with other nodes (Wasserman & Faust, 1994). We used these scores to identify the actors and narrative elements that played an important role in shaping narrative discourse; they pointed us towards the actors that were most likely to shape a group's narrative and the characters that were most likely to intersect multiple narratives. Note that by definition, there is a positive correlation ($r = 0.75$) between message frequency and degree centrality. Actors who contribute many messages to the dataset generally have more connections than actors who contribute few messages. While strong, this relationship is not absolute because some of the actors who contribute many messages utilize multiple narrative elements that connect them with multiple actors, whereas others repeatedly utilize the same elements, limiting their narrative connections with others.

Next, we used the Louvain community detection algorithm to identify subcommunities of actors and narrative elements within the pro-nuclear and anti-nuclear discourse coalitions (Blondel et al., 2008). This allowed us to explore cohesion in the networks of actors and the dominant patterns of narrative discourse in each of the groups. In short, Louvain community detection uses an optimization algorithm to assess modularity (dense connections) in different portions of a network. When the algorithm identifies an especially dense part of the network, it labels the

nodes/edges in that part of the network a community. In this study, communities are important because they indicate the underlying structure and cohesion of a network. Networks with many separate communities are less cohesive than networks with relatively few, overlapping communities.

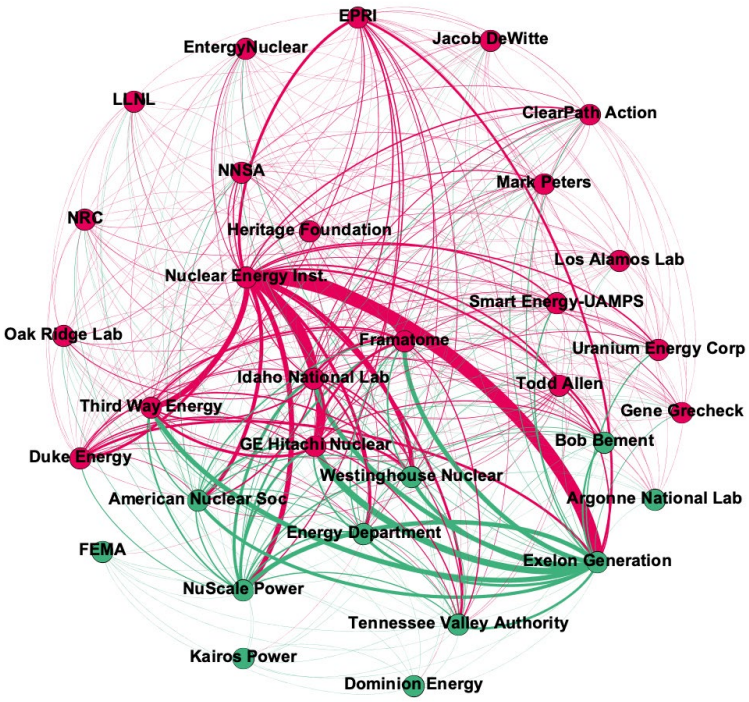
To date, most DNA studies rely on the Discourse Network Analyzer software created by Leifeld (2017; available here: https://www.philipleifeld.com/software/software.html) to qualitatively code statements from actors and extract network data for analysis. In this study, we chose not to use the DNA software because the file structure of Twitter data currently prevents importing the data in an easily useable fashion and our use of the NPF codebook for characters differs from DNA's focus on beliefs, perceptions, and preferences. To join DNA with the NPF, we manually coded each statement in a spreadsheet, which was then uploaded into R, where we used the igraph package to create the DNA matrices and calculate network statistics. We used Gephi to visualize the networks.

RESULTS

Discourse Networks of Policy Actors

Figure 3 graphically depicts the network of policy actors (nodes) who support nuclear energy. The ties (edges) between actors represent common narrative elements (heroes, villains, and victims). Edge thickness in the networks indicates commonality—actors who frequently use the same narrative elements in public discourse have thick ties; actors who infrequently use the same elements have thin edges. The green and red edge colors represent two distinct subcommunities that emerged from the Louvain community detection algorithm.

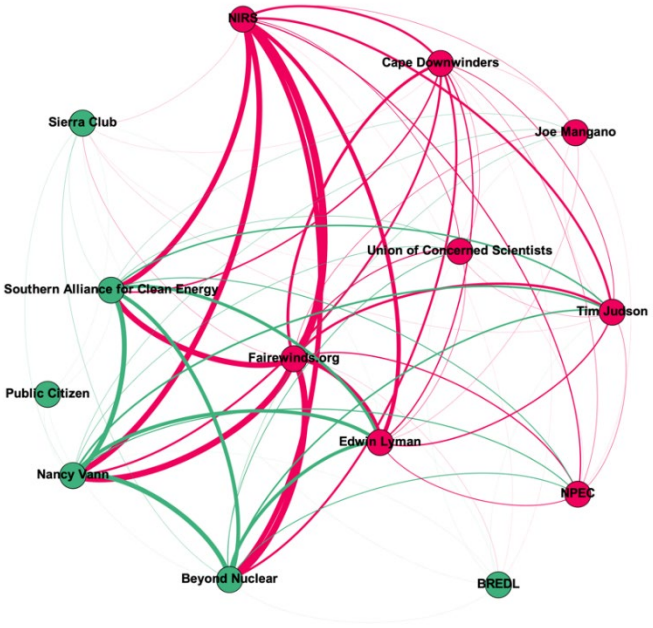
Figure 3. Network of Policy Actors who Support Nuclear Energy



Using the network visualization alone, we can begin to identify patterns in the shared narrative discourse. Most notably, for example, we see that the Nuclear Energy Institute (NEI) appears to share, if not structure, much of the narrative discourse that comes from actors who support nuclear energy. Likewise, we see a strong tie between NEI and Exelon Generation, emblematic of the strong relationship between trade associations (NEI) and private energy companies (like Exelon). These policy actors frequently contribute to narrative discourse, often using the same heroes, villains, and victims to propagate support for nuclear energy. Despite frequent contributions, NEI and Exelon have relatively low centrality scores in comparison to the American Nuclear Society (ANS) and the Department of Energy (DOE), who have more connections to a wide variety of actors in the group. These connections may reflect a slight distinction between scientific agencies/societies (DOE/ANS) and industry groups/companies (NEI/Exelon). Scientific actors seem to use diffuse narratives with many different elements in place of tight narratives that focus on the same cast of characters; by doing this, they establish narrative connections with more actors in the group, but the ties are relatively weak.

Network statistics allowed us to more fully examine this distinction by identifying clusters in the network—communities that overlap in the narrative they formulate. In highly cohesive discourse networks, where everyone shares an underlying narrative, there might be a single community or a dominant community and a fringe community or two that are relatively distant from the core group. As shown in Figure 3 the bottom (green) community is largely made of actors who produce or advocate for traditional nuclear energy, whereas the top (red) community seems to include actors who focus on the advancement of new nuclear technology. The NEI predominately fits in the new technology community but shares strong ties with the traditional nuclear energy group as well. As noted above, this suggests that the NEI shares (and possibly drives) much of the narrative discourse that comes from both groups in the network.

Figure 4. Network of Policy Actors who Oppose Nuclear Energy



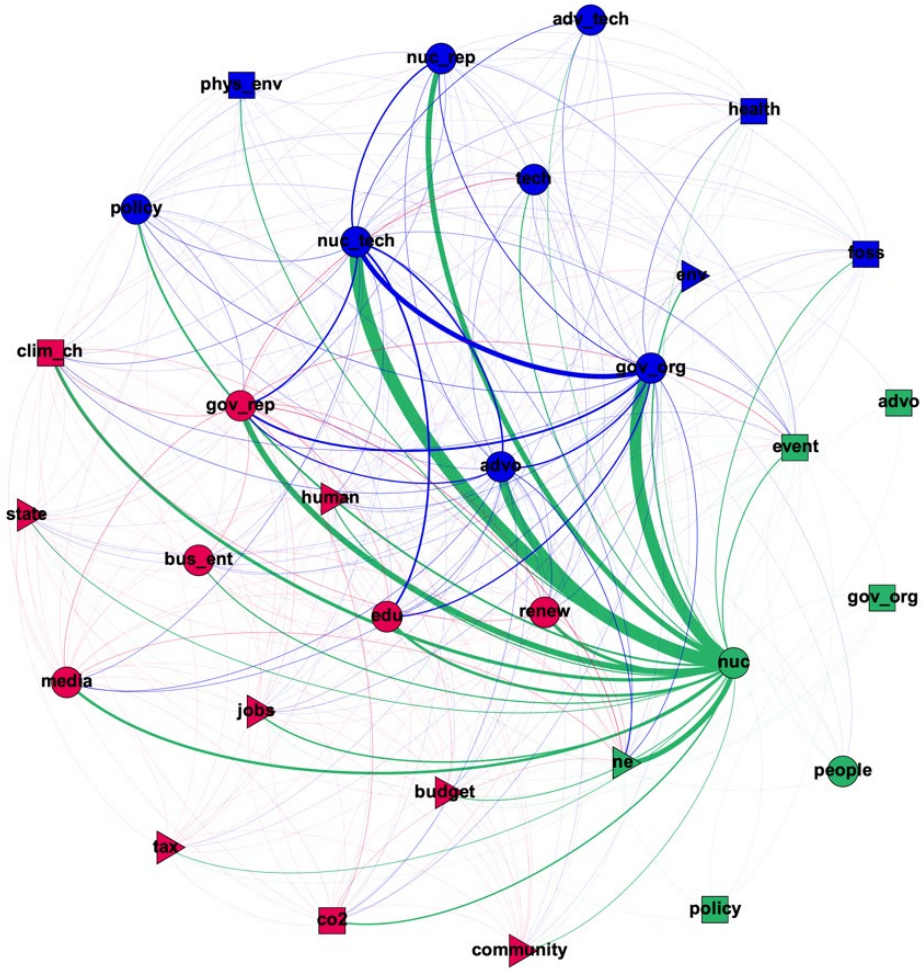
The opposition network (Figure 4) is visually sparse in comparison to the support network because there were fewer actors in the group at the time of this analysis. Nevertheless, there are quite a few narrative commonalities that connect the actors in the network. The thickest ties are between the Nuclear Information and Resource Service (NIRS), the Southern Alliance for Clean Energy, Nancy Vann, Fairwinds.org, and Beyond Nuclear, though there are many ties in the network that are almost as strong. Like many in the network, most of these actors are non-profit organizations (or individuals who represent non-profit organizations) that stress the risks of nuclear energy and promote renewable alternatives. Fairwinds.org was an important hub in the narrative network, connecting narrative elements from many different organizations. This finding may suggest one of two alternatives: (1) that Fairwinds.org is shaping the narratives that disparate groups subsequently adopt; or (2) that Fairwinds.org is a narrative clearing house, borrowing and sharing elements of stories from many different actors at once.

As in the support network, there are two communities in the opposition network that are roughly even in size. Unlike the support network, where there are relatively obvious differences in the types of actors in each community, there are no obvious differences between the actors in the two communities. Nevertheless, the communities seem to be using slightly different narrative elements when contributing to public discourse.

Discourse Networks of Narrative Elements

Figure 5 graphically depicts the network of narrative elements (nodes) that relate through actors who support nuclear energy (edges). The edges between the narrative elements indicate common actors. For example, the edge between climate change (the villain) and nuclear energy (the hero) shows that these elements were brought up by one or more of the group members in the network. Thick edges indicate a strong affinity between the narrative elements that arose because they were jointly brought up by multiple actors. Through a combination of node centrality and edge thickness, we can begin to identify the most important meta or overarching narratives that seem to underlie group discourse, as shown in Figure 5.

Figure 5: Network of Narrative Elements in Support of Nuclear Energy



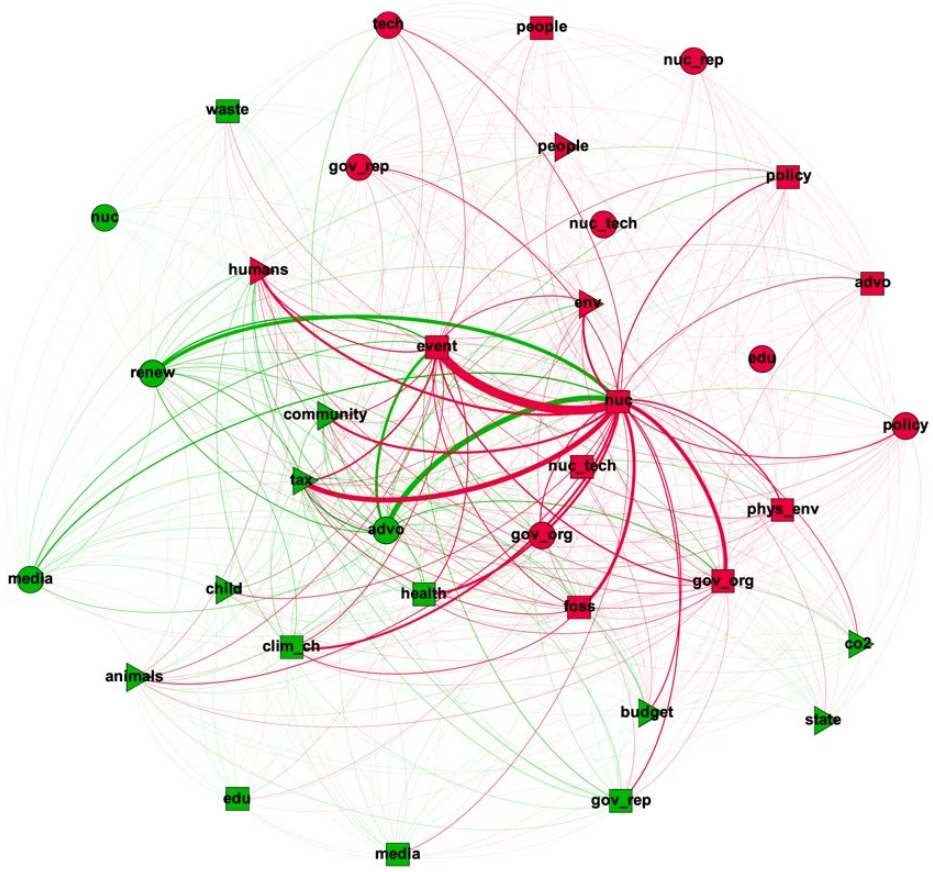
[Circle = Hero, Square = Villain, Triangle = Victim]

Unsurprisingly, nuclear energy (the hero) is the primary protagonist in the network. It has the highest degree of centrality and shares the thickest ties with other core elements in the network, including the heroic government organizations, advocacy groups, renewable energy sources, and new nuclear technologies that collectively fight to save humanity and the environment (the primary victims) from climate change and carbon emissions (the most prominent villains).

Consistent with the network of actors, there are three primary clusters in the network of narrative elements in support of nuclear energy, suggesting slight variation in the overarching narrative that underlies group discourse. The top (blue) narrative highlights the importance of new technology in promoting the next generation of nuclear power in the United States. The middle (green) narrative, focusing on nuclear energy as a whole, emphasizes the general benefits of nuclear energy, including low carbon emissions and economic growth. The bottom (red) narrative is the least pronounced but seems to focus on economic issues such as the loss of jobs, the threat of increased utility costs to household budgets, or taxpayer burdens as a result of prematurely closing nuclear power plants. The fissure between the two dominant clusters (blue and green) is representative of an ongoing debate among pro-nuclear advocates about the future of nuclear energy in the United States. Some groups highlight the emergence and importance of new nuclear

technologies like small modular reactors (SMRs) and molten salt reactors (MSRs) that will revolutionize and reinvigorate the nuclear industry, making it a safer, more sustainable, and cost-competitive alternative to fossil fuels. Others emphasize the importance of existing technology in providing baseload electricity, asserting the need to keep existing nuclear plants running.

Figure 6: Network of Narrative Elements in Opposition to Nuclear Energy



[Circle = Hero, Square = Villain, Triangle = Victim]

As illustrated in Figure 6, Nuclear energy is also the primary protagonist in the network of elements in opposition to nuclear energy, but this time it is the villain that joins forces with catastrophic accidents (such as Three Mile Island, Chernobyl, and Fukushima), public health risks, climate change, and fossil fuels to harm humanity, the environment, taxpayers, and communities. Advocacy groups and renewable energy are the heroes that are working to protect the victims. In some narratives, government organizations are heroes that protect the people; in others, government organizations are villains that protect the nuclear industry.

There are two clusters in the opposition network, indicting a slight division in the meta narrative discourse that opposing groups use when fighting against nuclear energy. There is

considerable overlap between the clusters, but the left (green) narrative seems to focus more heavily on climate change, renewable energy, and the unnecessary health risks of nuclear energy and nuclear waste. The right (red) narrative focuses a bit more on economic arguments against nuclear energy; it is too expensive and places too much of a burden on taxpayers and communities. This division is common in elite circles—staunch environmentalists oppose nuclear energy because it is dangerous and unnecessary whereas climate change advocates generally reject it because it is increasingly less cost competitive with alternative sources of electricity, such as wind and solar energy.

DISCUSSIONS AND CONCLUSIONS

Policy actors and groups tell stories to influence policy support, but their stories do not exist in isolation. The stories constructed by different actors form collective meta narratives that co-emerge and co-exist across groups of actors who share policy beliefs and goals. The primary objective of this study was to assess the utility of DNA for examining the collective nature of these meta narratives and the groups of actors who co-construct them. We used Twitter messages from groups of policy actors who support and oppose nuclear energy to accomplish this objective. On the whole, we believe that the study provides evidence that DNA can reveal things about meta narratives that are unlikely to be seen using more common approaches to narrative policy analysis.

DNA of policy actors reveals information about the cohesion of narrative discourse within the two policy groups. On the whole, the groups were relatively cohesive, but there were slight fractures that may reflect growing discordance in narrative discourse and group unity or efforts to speak to different constituents. Most notably, there were two relatively distinct communities in the network of policy actors who support nuclear energy; one was largely made of actors who produce or advocate for traditional nuclear energy, and the other included scientists and others who advocate for new nuclear technologies. There were also two distinct communities in the network of policy actors who oppose nuclear energy, but—absent information about the narrative structure underlying the cleavage—it was difficult to identify the difference between the two sets of actors.

DNA of narrative elements allowed us to more thoroughly investigate the differences between clusters of actors by detailing the underlying structure and content of narrative discourse that connected actors in the sub-group communities. Consistent with our analysis of the differences between actors, our analysis of communal narrative elements showed that there were two competing meta narratives in the pro-nuclear group. The first narrative community focused on the general benefits of nuclear energy in the fight against fossil fuels and climate change. The second focused on the role of new technologies in modernizing nuclear energy. This fault line reflects an ongoing debate among advocates about the future of nuclear energy in the United States. One side of the debate argues that new technologies are necessary to make nuclear power safer, more sustainable, and cost-competitive. The other side emphasizes the importance of existing technology in providing affordable, baseload electricity, asserting the need to keep existing plants running; in their view, new technologies are an unnecessary or unproven distraction.

Our analysis of the narrative elements used by anti-nuclear groups also indicated two primary meta narratives, though the contrast between the two was a bit less stark than in the pro-nuclear group. The first narrative generally focused on climate change, renewable energy, and the unnecessary health risks of nuclear energy and nuclear waste. The second focused a bit more on

the economics of nuclear energy, arguing that nuclear power plants are too expensive and place too much of a burden on taxpayers and communities. This split seems to reflect an ongoing debate between historic "environmentalists" who (above all) worry about the health risks of radiation and relatively recent "climate change realists" who focus on the relative cost of nuclear energy vs. renewable alternatives.

We conjecture that fissures in narrative discourse (as witnessed in these two groups but likely indicative of other policy groups) are important to the NPF because they are likely to indicate one of three things: (1) dissonance in policy groups that may undermine the group's ability to affect policy outcomes, (2) early signs of change in the meta narratives that policy groups are constructing. or (3) a pluralist narrative strategy whereby policy actors who share core beliefs intentionally or unintentionally construct different narratives that may resonate with different segments of the population. While this study does not provide evidence on which of these explanations is correct, it sets the stage by showing that DNA is compatible with the NPF. It also provides a transparent and replicable template for applying DNA to the NPF using social media or other forms of narrative data. These steps are important because future efforts to assess the relative merit of each explanation will require large volumes of consistent data that allow for the examination of narrative discourse, and the network structures that underlie this discourse, over time. This, we believe, is the next great frontier in DNA and NPF research—investigation of how discourse changes from month-to-month and year-to-year as long-time and new policy actors interact to jointly construct policy narratives and affect policy outcomes.

REFERENCES

Abdulla, A., Vaishnav, P., Sergi, B., & Victor, D. G. (2019). Limits to deployment of nuclear power for decarbonization: Insights from public opinion. *Energy Policy*, *129*, 1339–1346. https://doi.org/10.1016/j.enpol.2019.03.039

Abzianidze, N. (2020). Us vs. Them as Structural Equivalence: Analysing Nationalist Discourse Networks in the Georgian Print Media. *Politics and Governance*, *8*(2), 243–256. https://doi.org/10.17645/pag.v8i2.2605

Baumgartner, F. R., & Jones, B. D. (1991). Agenda Dynamics and Policy Subsystems. *The Journal of Politics*, *53*(4), 1044–1074. https://doi.org/10.2307/2131866

Berinsky, A. J., & Kinder, D. R. (2006). Making Sense of Issues Through Media Frames: Understanding the Kosovo Crisis. *The Journal of Politics*, *68*(3), 640–656. https://doi.org/10.1111/j.1468-2508.2006.00451.x

Besley, J. C. (2012). Does Fairness Matter in the Context of Anger About Nuclear Energy Decision Making?: Anger, Fairness, and Nuclear Power. *Risk Analysis*, *32*(1), 25–38. https://doi.org/10.1111/j.1539-6924.2011.01664.x

Bhattacharya, C. (2020). Gatekeeping the Plenary Floor: Discourse Network Analysis as a Novel Approach to Party Control. *Politics and Governance*, *8*(2), 229–242. https://doi.org/10.17645/pag.v8i2.2611

Blondel, V.D., Guillaume, J., Lambiotte, R., & Lefebvre, E. (2008). Fast unfolding communities in large networks. *Journal of Statistical Mechanics, P10008*(10), 1-12.

Borgatti, S. P., Everett, M. G., & Johnson, J. C. (2013). *Analyzing social networks*. SAGE.

Bossner, F., & Nagel, M. (2020). Discourse Networks and Dual Screening: Analyzing Roles, Content and Motivations in Political Twitter Conversations. *Politics and Governance*, *8*(2), 311–325. https://doi.org/10.17645/pag.v8i2.2573

Buckton, C. H., Fergie, G., Leifeld, P., & Hilton, S. (2019). A discourse network analysis of UK newspaper coverage of the "sugar tax" debate before and after the announcement of the Soft Drinks Industry Levy. *BMC Public Health*, *19*(1), 490. https://doi.org/10.1186/s12889-019-6799-9

De Groot, J. I. M., & Steg, L. (2010). Morality and Nuclear Energy: Perceptions of Risks and Benefits, Personal Norms, and Willingness to Take Action Related to Nuclear Energy: Morality and Nuclear Energy. *Risk Analysis*, *30*(9), 1363–1373. https://doi.org/10.1111/j.1539-6924.2010.01419.x

Fergie, G., Leifeld, P., Hawkins, B., & Hilton, S. (2019). Mapping discourse coalitions in the minimum unit pricing for alcohol debate: A discourse network analysis of UK newspaper coverage. *Addiction*, *114*(4), 741–753. https://doi.org/10.1111/add.14514

Fisher, D. R., Waggle, J., & Leifeld, P. (2013). Where Does Political Polarization Come From? Locating Polarization Within the U.S. Climate Change Debate. *American Behavioral Scientist*, *57*(1), 70–92. https://doi.org/10.1177/0002764212463360

Gerrig, R. J., & Egidi, G. (2003). Cognitive psychological foundations of narrative experiences. In D. Herman (Ed.), *CSLI lecture notes. Narrative theory and the cognitive sciences* (p. 33–55). Center for the Study of Language and Information.

Goffman, E. (1974). *Frame analysis: An essay on the organization of experience*. Harvard University Press.

Gottlieb, M., Oehninger, E. B., & Arnold, G. (2018). "No Fracking Way" vs. "Drill Baby Drill": A Restructuring of Who Is Pitted Against Whom in the Narrative Policy Framework. *Policy Studies Journal*, *46*(4), 798–827. https://doi.org/10.1111/psj.12291

Gupta, K., Ripberger, J. T., & Collins, S. (2014). The Strategic Use of Policy Narratives: Jaitapur and the Politics of Siting a Nuclear Power Plant in India. In M. D. Jones, E. A. Shanahan, & M. K. McBeth (Eds.), *The Science of Stories* (pp. 89–106). Palgrave Macmillan US. https://doi.org/10.1057/9781137485861_5

Gupta, K., Ripberger, J., & Wehde, W. (2018). Advocacy Group Messaging on Social Media: Using the Narrative Policy Framework to Study Twitter Messages about Nuclear Energy Policy in the United States: Advocacy Group Messaging on Social Media. *Policy Studies Journal*, *46*(1), 119–136. https://doi.org/10.1111/psj.12176

Hajer, M.A. (1993). Discourse coalitions and the institutionalization of practice: The case of acid rain in Britain. In The Argumentative Turn in Policy Analysis and Planning, edited by F. Fischer and J. Forester, pp. 43-76. Durham, NC: Duke University Press.

Hajer, M. A. (1995). *The politics of environmental discourse: Ecological modernization and the policy process*. Clarendon Press ; Oxford University Press.

Hajer, M. (2002). Discourse analysis and the study of policy making. *European Political Science*, *2*(1), 61–65. https://doi.org/10.1057/eps.2002.49

Heikkila, T., Pierce, J. J., Gallaher, S., Kagan, J., Crow, D. A., & Weible, C. M. (2014). Understanding a Period of Policy Change: The Case of Hydraulic Fracturing Disclosure Policy in Colorado: Understanding a Period of Policy Change. *Review of Policy Research*, *31*(2), 65–87. https://doi.org/10.1111/ropr.12058

Heikkila, T., Weible, C. M., & Pierce, J. J. (2014). Exploring the policy narratives and politics of hydraulic fracturing in New York. In *The science of stories* (pp. 185-205). Palgrave Macmillan, New York.

Ingold, K. (2011). Network Structures within Policy Processes: Coalitions, Power, and Brokerage in Swiss Climate Policy: Ingold: Network Structures within Policy Processes. *Policy Studies Journal*, *39*(3), 435–459. https://doi.org/10.1111/j.1541-0072.2011.00416.x

Jenkins-Smith, H.J., Nohrstedt, D., Weible, C., & Ingold, K. (2017). The advocacy coalition framework: An overview of the research program. In C. Weible (Ed.), *Theories of the Policy Process* (pp. 135-171). Boulder, CO: Westview Press.

Jones, M. D., & McBeth, M. K. (2010). A Narrative Policy Framework: Clear Enough to Be Wrong?: Jones/McBeth: A Narrative Policy Framework. *Policy Studies Journal*, *38*(2), 329–353. https://doi.org/10.1111/j.1541-0072.2010.00364.x

Jones, M. D., Shanahan, E. A., & McBeth, M. K. (Eds.). (2014). *The science of stories: Applications of the narrative policy framework in public policy analysis*. Palgrave Macmillan.

Kadushin, C. (2012). *Understanding social networks: Theories, concepts, and findings*. Oxford University Press.

Keller, C., Visschers, V., & Siegrist, M. (2012). Affective Imagery and Acceptance of Replacing Nuclear Power Plants: Replacing Nuclear Power Plants. *Risk Analysis*, *32*(3), 464–477. https://doi.org/10.1111/j.1539-6924.2011.01691.x

Kim, Y., Kim, W., & Kim, M. (2014). An international comparative analysis of public acceptance of nuclear energy. *Energy Policy*, *66*, 475–483. https://doi.org/10.1016/j.enpol.2013.11.039

Klein, Kitty. 2003. "Narrative Construction, Cognitive Processing, and Health." In Narrative Theory and the Cognitive Sciences, ed. David Herman. Stanford: CSLI Publications, 56–84.

Kühberger, A. (1998). The Influence of Framing on Risky Decisions: A Meta-analysis. *Organizational Behavior and Human Decision Processes*, *75*(1), 23–55. https://doi.org/10.1006/obhd.1998.2781

Landis, J. R., & Koch, G. G. (1977). An application of hierarchical kappa-type statistics in the assessment of majority agreement among multiple observers. *Biometrics*, 363-374.

Lawlor, A., & Crow, D. (2018). Risk-Based Policy Narratives. *Policy Studies Journal*, *46*(4), 843–867. https://doi.org/10.1111/psj.12270

Leifeld, P. (2013). Reconceptualizing Major Policy Change in the Advocacy Coalition Framework: A Discourse Network Analysis of German Pension Politics: Reconceptualizing Major Policy Change in the ACF. *Policy Studies Journal*, *41*(1), 169–198. https://doi.org/10.1111/psj.12007

Leifeld, P. (2016). *Policy debates as dynamic networks: German pension politics and privatization discourse*. Campus Verlag.

Leifeld, Philip (2017): Discourse Network Analysis: Policy Debates as Dynamic Networks. In J. N. Victor, A. H. Montgomery, & M. N. Lubell (Eds.), *The Oxford Handbook of Political Networks* (pp. 301-325). New York: Oxford University Press.

Leifeld, P. (2020). Policy Debates and Discourse Network Analysis: A Research Agenda. *Politics and Governance*, *8*(2), 180–183. https://doi.org/10.17645/pag.v8i2.3249

Leifeld, P., & Haunss, S. (2012). Political discourse networks and the conflict over software patents in Europe: Political discourse networks. *European Journal of Political Research*, *51*(3), 382–409. https://doi.org/10.1111/j.1475-6765.2011.02003.x

Mazmanian, D.A. & Morrell, D. (1994). The NIMBY syndrome: Facility siting and the failure of democratic discourse. In N. J. Vig & M. E. Kraft (Eds.), *Environmental Policy in the 1990s: Toward a New Agenda* (2nd ed., pp. 233-249). Washington, DC: CQ Press.

McBeth, M. K., Shanahan, E. A., & Jones, M. D. (2005). The Science of Storytelling: Measuring Policy Beliefs in Greater Yellowstone. *Society & Natural Resources*, *18*(5), 413–429. https://doi.org/10.1080/08941920590924765

McBeth, M. K., & Lybecker, D. L. (2018). The Narrative Policy Framework, Agendas, and Sanctuary Cities: The Construction of a Public Problem: The Narrative Policy Framework, Agendas, and Sanctuary Cities. *Policy Studies Journal*, *46*(4), 868–893. https://doi.org/10.1111/psj.12274

McBeth, M. K., Shanahan, E. A., Hathaway, P. L., Tigert, L. E., & Sampson, L. J. (2010). Buffalo tales: interest group policy stories in Greater Yellowstone. *Policy Sciences*, *43*(4), 391-409.

Merry, M. K. (2016). Constructing Policy Narratives in 140 Characters or Less: The Case of Gun Policy Organizations: Policy Narratives on Twitter. *Policy Studies Journal*, *44*(4), 373–395. https://doi.org/10.1111/psj.12142

Merry, M. K. (2018). Narrative Strategies in the Gun Policy Debate: Exploring Proximity and Social Construction. *Policy Studies Journal*, *46*(4), 747–770. https://doi.org/10.1111/psj.12255

Merry, M. K. (2020). *Warped narratives: Distortion in the framing of gun policy*. University of Michigan Press.

Miller, C. A. (2000). The Dynamics of Framing Environmental Values and Policy: Four Models of Societal Processes. *Environmental Values*, *9*(2), 211–233. https://doi.org/10.3197/096327100129342047

Naegler, R. (2015). With|out a Partner. The Idea of Cooperation in Higher Education Discourses. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.2633108

Nagel, M., & Satoh, K. (2019). Protesting iconic megaprojects. A discourse network analysis of the evolution of the conflict over Stuttgart 21. *Urban Studies*, *56*(8), 1681–1700. https://doi.org/10.1177/0042098018775903

Parkhill, K. A., Pidgeon, N. F., Henwood, K. L., Simmons, P., & Venables, D. (2010). From the familiar to the extraordinary: Local residents' perceptions of risk when living with nuclear power in the UK: Perceptions of risk when living with nuclear power in the UK. *Transactions of the Institute of British Geographers*, *35*(1), 39–58. https://doi.org/10.1111/j.1475-5661.2009.00364.x

Poortinga, W., & Pidgeon, N. F. (2003). Exploring the Dimensionality of Trust in Risk Regulation. *Risk Analysis*, *23*(5), 961–972. https://doi.org/10.1111/1539-6924.00373

Rinscheid, A. (2015). Crisis, Policy Discourse, and Major Policy Change: Exploring the Role of Subsystem Polarization in Nuclear Energy Policymaking. *European Policy Analysis*, *1*(2). https://doi.org/10.18278/epa.1.2.3

Roth, C., & Bourgine, P. (2005). Epistemic Communities: Description and Hierarchic Categorization. *Mathematical Population Studies*, *12*(2), 107–130. https://doi.org/10.1080/08898480590931404

Sabatier, P. A. (1988). An advocacy coalition framework of policy change and the role of policy-oriented learning therein. *Policy Sciences*, *21*(2–3), 129–168. https://doi.org/10.1007/BF00136406

Sabatier, P. A., & Jenkins-Smith, H. C. (Eds.). (1993). *Policy change and learning: An advocacy coalition approach*. Westview Press.

Shanahan, E. A., McBeth, M. K., Tigert, L. E., & Hathaway, P. L. (2010). From protests to litigation to *YouTube*: A longitudinal case study of strategic lobby tactic choice for the Buffalo Field Campaign. *The Social Science Journal*, *47*(1), 137–150. https://doi.org/10.1016/j.soscij.2009.10.002

Shanahan, E. A., Jones, M. D., & McBeth, M. K. (2011). Policy Narratives and Policy Processes. *Policy Studies Journal*, *39*(3), 535–561. https://doi.org/10.1111/j.1541-0072.2011.00420.x

Shanahan, E. A., Jones, M. D., McBeth, M. K., & Lane, R. R. (2013). An Angel on the Wind: How Heroic Policy Narratives Shape Policy Realities: Narrative Policy Framework. *Policy Studies Journal*, *41*(3), 453–483. https://doi.org/10.1111/psj.12025

Shanahan, E. A., Jones, M. D., & McBeth, M. K. (2018a). How to conduct a Narrative Policy Framework study. *The Social Science Journal*, *55*(3), 332–345. https://doi.org/10.1016/j.soscij.2017.12.002

Shanahan, E. A., Raile, E. D., French, K. A., & McEvoy, J. (2018b). Bounded Stories. *Policy Studies Journal*, *46*(4), 922–948. https://doi.org/10.1111/psj.12269

Smith-Walter, A., Jones, M. D., Shanahan, E. A., & Peterson, H. (2020). The stories groups tell: campaign finance reform and the narrative networks of cultural cognition. *Quality & Quantity*, *54*(2), 645-684

Wagner, P., & Payne, D. (2017). Trends, frames and discourse networks: Analysing the coverage of climate change in Irish newspapers. *Irish Journal of Sociology*, *25*(1), 5–28. https://doi.org/10.7227/IJS.0011

Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications*. Cambridge University Press.

Weible, C. M., & Ingold, K. (2018). Why advocacy coalitions matter and practical insights about them. *Policy & Politics*, *46*(2), 325–343. https://doi.org/10.1332/030557318X15230061739399

Weible, C. M., Ingold, K., Nohrstedt, D., Henry, A. D., & Jenkins-Smith, H. C. (2019). Sharpening Advocacy Coalitions. *Policy Studies Journal*, psj.12360. https://doi.org/10.1111/psj.12360

Weible, C. M., Olofsson, K. L., Costie, D. P., Katz, J. M., & Heikkila, T. (2016). Enhancing Precision and Clarity in the Study of Policy Narratives: An Analysis of Climate and Air Issues in Delhi, India: Enhancing Precision and Clarity in the Study of Policy Narratives. *Review of Policy Research*, *33*(4), 420–441. https://doi.org/10.1111/ropr.12181

Weible, C. M., & Sabatier, P. A. (Eds.). (2017). *Theories of the policy process* (Fourth edition). Westview Press.

Whitfield, S. C., Rosa, E. A., Dan, A., & Dietz, T. (2009). The Future of Nuclear Power: Value Orientations and Risk Perception. *Risk Analysis*, *29*(3), 425–437. https://doi.org/10.1111/j.1539-6924.2008.01155.x

CHAPTER APPENDIXES

Appendix: Codebook

Tweets were manually coded by trained human coders to identify the Twitter user (actor) and narrative elements (heroes, villains, and victims). Each of these narrative elements consisted of several subtypes, which are described below.

Heroes: Those who take action with purpose to achieve or oppose a policy solution or are praised in some way.

Type of Heroes

1. **Business & Industry**
   - **nuc**: Nuclear energy (nuclear energy, nuclear power plants, producers, operating company)
   - **nuc_rep**: Nuclear industry representative (executives, employees, staff, plant operators, i.e. people who work for nuclear power companies)
   - **foss**: Fossil fuels (coal, oil, natural gas)
   - **renew**: Renewable energy (wind, solar)
   - **tech**: Technology (technology, AI, smart grid, supercomputers, that is not related to nuclear energy)
   - **nuc_tech**: Advanced nuclear technology (small modular reactors, microreactors, molten salt reactors, fusion, next generation, GenIV, or technology that helps improve the safety and efficiency of nuclear power)
   - **waste**: Waste (nuclear waste)
   - **bus_ent**: Business entrepreneur (non-nuclear business)
2. **Environment**
   - **co2**: Carbon emissions (carbon emissions, carbon, carbon dioxide, CO2, greenhouse gasses)
   - **clim_ch**: Climate change (sea-level rise, temperature change, melting ice)
   - **phys_env**: Physical environmental phenomena (earthquake, tsunami, flood, hurricane, tornado, rain, wind, polar vortex, fire)
3. **Government & Public Sector**
   - **policy**: Policy and legislation (policy, law, legislation, regulation)
   - **gov_rep**: Government official (politician, candidate, agency representative, elected official, party official)
   - **gov_org**: Government agency (local, state, and/or federal agency, national laboratories)
4. **Cultural & Historical**
   - **lang**: Language (language, dialect)
   - **event**: Events (historical events including Fukushima, Chernobyl, Three Mile Island, the Oil Crisis)
   - **mem**: History and memory (memory, history)
5. **Other**
   - **advo**: Advocacy (interest group, lobbyist, activist, think tank)
   - **edu**: Academia (professor, scientist, graduate student)

media: Media (newspaper, television network, journalist, anchor, blog, blogger, radio, radio host)
people: People (individuals, people, family, community)
health: Health (disease, cancer, radiation poisoning, radiation sickness)

Villains: Those who create a harm or inflict damage or pain upon a victim or, in other cases, as one who opposes the aims of the hero.

Types of Villains

1. **Business & Industry**
   - **nuc**: Nuclear energy (nuclear energy, nuclear power plants, producers, operating company)
   - **nuc_rep**: Nuclear industry representative (executives, employees, staff, plant operators, i.e. people who work for nuclear power companies)
   - **foss**: Fossil fuels (coal, oil, natural gas)
   - **renew**: Renewable energy (wind, solar)
   - **tech**: Technology (technology, AI, smart grid, supercomputers, that is not related to nuclear energy)
   - **nuc_tech**: Advanced nuclear technology (small modular reactors, microreactors, molten salt reactors, fusion, next generation, GenIV, or technology that helps improve the safety and efficiency of nuclear power)
   - **waste**: Waste (nuclear waste)
   - **bus_ent**: Business entrepreneur (non-nuclear business)
2. **Environment**
   - **co2**: Carbon emissions (carbon emissions, carbon, carbon dioxide, CO2, greenhouse gasses)
   - **clim_ch**: Climate change (sea-level rise, temperature change, melting ice)
   - **phys_env**: Physical environmental phenomena (earthquake, tsunami, flood, hurricane, tornado, rain, wind, polar vortex, fire)
3. **Government & Public Sector**
   - **policy**: Policy and legislation (policy, law, legislation, regulation)
   - **gov_rep**: Government official (politician, candidate, agency representative, elected official, party official)
   - **gov_org**: Government agency (local, state, and/or federal agency, national laboratories)
4. **Cultural & Historical**
   - **lang**: Language (language, dialect)
   - **event**: Events (historical events including Fukushima, Chernobyl, Three Mile Island, the Oil Crisis)
   - **mem**: History and memory (memory, history)
5. **Other**
   - **advo**: Advocacy (interest group, lobbyist, activist, think tank)
   - **edu**: Academia (professor, scientist, graduate student)
   - **media**: Media (newspaper, television network, journalist, anchor, blog, blogger, radio, radio host)
   - **people**: People (individuals, people, family, community)
   - **health**: Health (disease, cancer, radiation poisoning, radiation sickness)

Victims: Those who are harmed by a particular action or inaction.

1. Human

human: Humans (individual, people, family)
child: Children (human beings under the age of 18)
community: Community (aggregate group of people, town, city)

2. Wildlife & Natural Environment

env: Physical environment (soil, water, air, environment in general)
animal: Animals (animals)

3. Economic

job: Jobs (jobs, employment)
tax: Taxpayers (taxpayers, citizens)
budget: Budget (household budget, fiscal budget of state)

4. Cultural & Historical

lang: Language (language, dialect)
event: Events (historical events including Fukushima, Chernobyl, Three Mile Island, the Oil Crisis)
mem: History and memory (memory, history)

5. Other

state: The State (state, country, national interest, national security, government)
ne: Nuclear energy (nuclear energy, nuclear power plants, plant operators, industry)

CHAPTER 3: STEPPING FORWARD: TOWARDS A MORE SYSTEMATIC NPF WITH AUTOMATION

Laura P. Wolton*, University of Colorado Denver, School of Public Affairs
Deserai A. Crow, University of Colorado Denver, School of Public Affairs
Tanya Heikkila, University of Colorado Denver, School of Public Affairs

ABSTRACT

Advancements in automated text analysis have substantially increased our capacity to study large volumes of documents systematically in policy process research. The Narrative Policy Framework (NPF)—which promotes empirical analysis of narratives—has the potential to usher policy narrative research along the same path. Using the NPF and existing semi-automated analysis tools, we investigate the relationship between narrative components—namely, characters and proposed solutions—and the more "skeletal" frames that tie policy narrative elements to one another. To illustrate how these tools can advance policy narrative research, we auto-code 5,708 state and local news articles focusing on hydraulic fracturing of oil and gas. The findings suggest that the use and role of characters and policy solutions are portrayed in significantly different ways depending on the frame used. By using an autocoding approach, these findings increase our methodological and theoretical understanding of the relationship between narrative elements and frames in policy narratives. In discussing these findings, we also consider their implications for how issue frames matter theoretically in the NPF.

*Corresponding author: laura.wolton@ucdenver.edu

To cite the chapter: Wolton, Laura P., Deseai A. Crow, and Tanya Heikkila. 2022. "Stepping Forward: Toward a More Systematic NPF with Automation", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 40-90. doi.org/10.15788/npf3

INTRODUCTION

For the last 60 years, text analysis methods have allowed advances in the research traditions of various fields, including behavioral sciences, consumer research, and media analysis

(Humphreys &Wang, 2017). The General Inquirer (Stone et al., 1962) was one of the first computer-assisted approaches designed for the analysis of text, employing a dictionary lookup method that "tagged" a sentence for the appearance of a word belonging to a specific category, and became a precursor to dictionary lookup methods available to content analysts today. Recent computer-assisted text analysis advances include semi- to fully-automated approaches, which emerge from multi and interdisciplinary research efforts from the computer sciences, social sciences, linguistics, and artificial intelligence.

While automated and semi-automated text analysis methods advanced for decades, we have only recently seen policy process scholars using these methods in published research (e.g., Lawlor, 2015; Heikkila &Weible, 2017; Olofsson et al., 2018; Berardo et al., 2020; Blair et al.,2016; Scott et al.,2020). Although some of these applications of automated text analyses have looked at themes and issues that arise in policy debates, less attention has focused on the structure of policy narratives. With widespread availability of policy narrative content in various media formats—from online news, downloadable publications, to social media—there is an ongoing need for automated tools to systematically evaluate larger datasets of narratives (Shanahan et al., 2018). This chapter will demonstrate that the incorporation of semi-automated and automated methods into the policy researcher's analytical toolbox can advance policy narrative research. The chapter begins by discussing the differences and connections between narratives and frames, beginning with a detailed discussion of policy narratives. The example case used in this analysis is then described, followed by a step-by-step description of the automated method introduced in this chapter. The findings are presented followed by a discussion of the implications of this method for policy process scholarship in general and the study of narratives specifically.

The employment of automated methods in policy narrative research is congruent with the ambitions of the Narrative Policy Framework (NPF) as the framework itself promotes a systematic structure that allows for increased generalization and comparison amongst research findings. Through its operationalization of narrative elements, the NPF allows for a systematic and reliable investigation into the role of narratives in the policy process. As of yet, only two studies have used semi-automated techniques with the NPF—both with inductive methods of categorization for designing autocoding dictionaries (Merry, 2018; Crow & Wolton, 2020). The first objective of this chapter is to extend the previous work done by Crow and Wolton (2020) and, in doing so, propose a method to connect autocoded policy actors to NPF characters.

The second objective of this chapter is to investigate the relationship between frames and narrative elements, expanding on an emerging body of NPF literature (Jones & Song, 2014; Lawlor & Crow, 2018; Crow & Lawlor, 2016; Merry, 2018). The framing literature suggests that communications using the same frame will contain the same narrative elements. For example, within one frame, similar categories of policy actors are likely to be portrayed in a similar character role (e.g., industry actors as villains, government actors as heroes). The solutions within one frame should similarly remain constant. Characters and solutions are likely transported in frames together because actors have a range of solutions that they have the ability or authority to perform (e.g., government can regulate, citizens can vote). Thus, to our second objective we ask: How does a narrative frame relate to the characters used and solutions presented? In answering this question, we not only offer insights on semi-automated narrative analysis tools, but also offer theoretical advancements for the NPF and framing literature.

NPF, Framing, and Autocoding

Arguably, improving automated techniques will amplify the potential for systematic and generalizable policy narrative research, particularly if the methods are transparent and accessible. Frameworks create a shared orientation and conceptual map that structure how researchers study a particular phenomenon (McGinnis & Ostrom, 2014). For policy communication researchers, the development of the NPF (Jones & McBeth, 2010) was a successful step towards promoting an increased degree of structure and consistency in policy narrative analysis. The interdisciplinary nature of policy narrative research and, thus, the potential for application of theories across policy domains highlights the need for increased replicability and validity in NPF studies (Shanahan et al., 2018).

Though NPF analysis has not commonly included frame analysis, several scholars have made efforts to connect the framework with framing theory (Jones, 2013; Crow & Lawlor, 2016; Olofsson et al., 2018). Frames are broader approaches to narrating a topic, focusing attention on particular themes, ideas, or issues. In doing so they can constrain narratives to the selection of a particular set of narrative elements that are commonly aligned with a given frame. Recent advances in the automated detection of frames in news articles suggest that, coupled with an increased understanding of elements, these methods can expand our understandings of the structures and elements of policy narratives.

Narrative Policy Framework

The NPF is a means of investigating the structure and content of policy narratives (and the implications of that content to public opinion and policy) both qualitatively and quantitatively, promoting shared units of analysis and codebook design. The NPF asserts that *policy narratives* are structured stories that include a setting, characters, plot, and a moral of the story (the policy solution to the problem). However, to be considered a policy narrative, a communication or text must contain at least one character and a reference to a policy issue (Jones et al., 2014).

Characters

The term *characters,* according to the NPF definition, involves those entities "who act or are acted upon" and are categorized according to common roles that appear in narratives (Shanahan et al., 2018, p. 335). While only three narrative characters appear in the original framework of the NPF (heroes, villains, and victims), subsequent studies have added to the range of identifiable characters (Shanahan et al., 2017). Of those previous categories, this study limits character identifications to heroes, villains, victims, allies, opponents, and charismatic experts:

- *Heroes* fix or attempt to fix a problem and are praised in some way.
- *Villains* do the harm or are blamed for the policy problem or issue.
- *Victims* are harmed by the problem and are constructed to receive sympathy.
- *Allies* hold a policy position in agreement with the author. Interest groups—such as oil and gas industry associations and environmental groups—use messages intended to strengthen bonds among like-minded groups (Merry, 2016).
- *Opponents* hold a policy position in disagreement with the author (Merry, 2016). Though opponents support villains and may receive blame, the language that they are associated with is not expected to be as severe as that surrounding villains.

- *Charismatic experts* are strategically cited in policy narratives because they lend legitimacy and credibility to key evidence and reports. Lawton and Rudd (2014) argue the necessity of experts as an additional NPF character to improve empirical understanding of how evidence impacts policy decisions.

Moral of the Story or Solutions

One of the four primary narrative structure elements (i.e., variables) in the NPF is the moral of the story, which elicits action or provides a policy solution (Stone, 2002; Ney & Thompson, 2000; Verweij et al., 2006). Solutions are most often related to characters in the NPF, as heroes "take action with purpose to achieve or oppose a policy solution" (Shanahan et al., 2018, p. 343). NPF research shows that though not necessary to the definition of *policy narrative*, solutions are present in a high proportion of narratives (Crow et al., 2017; Crow & Wolton, 2020). Research indicates that solutions are more likely to be accepted by readers who experience positive affect towards story characters (Jones & Song, 2014), pointing to the need for further research on both characters and solution. Thus, in exploring how frames relate to characters and solutions, we can help advance this line of research.

Frames

Framing theory from the mass communication scholarship helps us connect the broad issue characteristics of focus (i.e., frames) to the more specific structural elements (e.g., characters, solutions) of policy narratives. As Crow and Lawlor (2016) discuss, frames are the overarching approach to narrating a story that constrains the specific choices made in construction of narratives. For example, when framing a discussion of the climate change issue, a narrator could use a religious frame and, therefore, cast characters such as a pastor or God when discussing the morality of addressing the climate crisis. While both policy narratives and frames may be used strategically to influence policy outcomes, narratives more overtly include story-like elements such as morals and contrasting characters.

Framing entails the "selection of certain aspects of a perceived reality and makes them more salient in a communicating text, in such a way as to promote a particular problem definition, causal interpretation, moral evaluation, and/or treatment recommendation" (Entman, 1993, p. 52). That is, there is a larger structure to any story that organizes facts into a storyline and emphasizes selected facets to communicate a particular viewpoint (Crow & Lawlor, 2016). Framing theory considers frames to be the structural "bones" of stories—a major theme that bounds the story within which the narrative elements are assembled.

An underlying assumption of framing theory is that there are options for how to present information (Scheufele & Iyengar, 2014). Thus, the effects of framing on audience perceptions are due to choices made in the way information is presented—not necessarily the facts that are revealed. Journalists are not the only communicators who frame stories—individuals do the same in how we convey information and focus on selective parts of a story at the expense of other potential angles. For example, journalists in the United States strive for "unbiased" presentation of facts but are also taught to shape stories in an audience-focused manner; to stir emotion and empathy they select from a list of issue characteristics choosing the most compelling (Crow & Lawlor, 2016). These choices are consequential because focusing on one aspect of a policy issue

may limit the conversation of the public and policymakers around that issue (Crow & Lawlor, 2016; Lawlor, 2015).

There are a number of approaches to studying frames and competing or conflicting definitions. Using framing analysis, we can study sub-topics of a broad issue (issue frames), different conceptual aspects of an issue from moral to political and others (news frames), broad themes versus specific incidences (thematic vs. episodic frames), among others. In this analysis, we will employ issue frames, but others could be used depending on the focus of a given study. A researcher needs to specify the approach and follow the method presented in this chapter with a clear definition of frames in mind.

Frames and Elements Theoretically Travel Together

The definition of framing presented by Entman (1993) suggests that elements of the NPF, such as solutions and characters, should be correlated to the use of frames because framing involves choosing (perhaps not always deliberately) a certain way to present information (e.g., religious vs. economic). The co-occurrence of narrative characters and solutions within a specific frame is a somewhat obvious deduction. For example, if the Environmental Protection Agency is cast as the hero character in an environmental frame, the solution attached to this hero will likely be one related to regulation—the agency has only a range of policy solution activities that it can perform. If the agency is cast as a villain in an economic frame, it may be associated with a similar solution—regulating—while the hero of the story is most likely opposing this government intervention. Finding empirical evidence that narrative elements and frames co-occur would be a meaningful contribution to framing literature as well as NPF so that we can better understand the relationship between these two communication tools and eventually the corollary effects of those tools in tandem and separately.

Applying Automation to Policy Narratives

While automation has been increasingly applied to other areas of research, automated analysis with the NPF has been held back by some aspects of the framework itself, as well as limitations of automated text analysis in general. We address a few perceived roadblocks and propose ways to move through them, focusing on the NPF elements of *characters* and *solutions*. Although the automated detection of frames is relatively established, we also stress the importance of conceptual clarity *prior* to semi-automated or automated coding.

Character/Actor Association Fluidity

The NPF defines characters in such a way to allow for fluidity, so that various policy actors or groups may play the role of a single character and that a single policy actor may hold different character roles in different narratives. Because this definitional approach to characters means that one character is never necessarily tied to one policy actor or group, NPF researchers have found it difficult to apply autocoding and capture this fluidity (Shanahan et al., 2018). Our methods, which take the context surrounding the policy actor into consideration, address this issue by allowing the actor to be associated with an NPF character in each frame. Additionally, particularly in cases of large volumes of narratives, the number of policy actors and groups is potentially very large. We use categorization strategies to reduce the complexity of the association between policy actors and

characters. Our method takes advantage of information beyond the name of a policy actor to identify and characterize them (further explained in the *General Method Description* section of this chapter).

Solution Variability

While the NPF is definitionally clear on the moral of the story—a proposed specific or general policy fix (e.g., "go vote")—prescriptive coding schema for *moral of the story* is less developed. Currently, a basic codebook on solutions may include a range of policy solutions that may vary according to policy domain, level of government, or other factors (see Appendix A in Shanahan et al., 2018). For automated coding, this presents a problem with the potentially high variability of solutions, particularly for large volumes of policy narratives. Similar to the work of Crow and Wolton (2020), which created code categories by policy domain, we designed a category schema based on the primary policy tools the solutions are proposed to (or do) implement. Additionally, we allow for solutions that are less concrete than specific actions or policies to be placed in a general category. Our method of autocoding uses parts-of-speech analysis and term-frequency generation as a primary method of identifying solutions (further explained in the *General Method Description* section of this chapter).

Finding Conceptual Clarity on Frames

Frames have been effectively identified with semi-automated methods by numerous scholars in various policy domains including public health, immigration, and air pollution (Lawlor, 2015; Olofsson et al., 2018; Poirier et al., 2020; Yu et al., 2020; Berardo et al., 2020). Two general approaches are used in autocoding frames: 1) inductive dictionary development and 2) Latent Dirichlet Allocation (LDA) modeling (these are further explained in the *General Method Description* section in this chapter). As with any research involving frames, it is essential to be clear which type of frame is under investigation *prior* to semi-automated or automated coding. Understanding the differences in framing definitions since there are numerous definitions that often conflict or overlap with one another, as well as taking steps to appropriately bound investigation by the objectives of the research, are especially beneficial when approaching large datasets.

THE POLICY DOMAIN: SHALE OIL AND GAS DEVELOPMENT IN THE UNITED STATES

Energy development, particularly of shale oil and gas, is a contentious issue in the United States. The United States is the world's top producer of petroleum and natural gas hydrocarbons and has held this position since 2009 when hydraulic fracturing and horizontal drilling allowed for rapid expansion of shale development (US Energy Information Administration, 2018). Proponents of oil and gas development argue that expansion of shale gas provides energy independence, jobs, and economic benefits. For all its beneficial economic contributions, those who oppose shale oil and gas development argue that it can lead to property rights conflicts, environmental harm, and risks to public health and worker safety, among other issues. For instance, some of the recorded impacts of hydraulic fracturing include increased local air pollution from dust, odor, ozone, and volatile organic carbon (VOC) emissions; methane emissions; water contamination; high water use; structural damage from earthquakes triggered by wastewater reinjection; damage to wildlife habitat; abandoned orphan wells; oil, gas, and wastewater spills; noise pollution; and worker

fatalities (Joyce & Wirfs-Brock, 2015; Konkel, 2016; Hand, 2015; Witze, 2015; Adgate et al., 2014; Gallegos et al., 2015; Bamberger & Oswald 2015; Moskowitz, 2015; Mason et al., 2015).

Analyzing news articles on a salient, controversial issue, such as shale oil and gas, is a useful way to explore a wide range of policy narrative elements, such as character portrayals, solutions, and variable frames. Additionally, shale oil and gas development draws significant attention at local as well as state levels in the United States —yielding potentially different narratives across locations and additional variation in the narrative elements used. Lastly, the variance in regulatory stringency of shale oil and gas development across states allows for further insight into a range of policy perspectives.

General Methods Description

To highlight the potential for semi- or fully-automated techniques and investigate the relationship between NPF elements and frames, we detail a multi-step method. In addition to describing how to detect characters, solutions, and frames, we briefly describe how to check a large data sample of written media to ensure that they are policy narratives. The method presented here is less a procedure than it is a flexible guideline. The researcher's theoretical lens should ultimately shape the selection of the methodological approach, variables, and relationships to be studied.

We describe six general phases shown in Figure 1: 1) data selection, collection, and cleaning data; 2) designing and refining the dictionaries; 3) subsetting to only policy narratives; 4) final autocoding; 5) subsetting to a single frame; and 6) mapping of the policy actors into NPF character sentiment ranges. Novice- to intermediate-level programmers will likely do well to complete Phases 1 through 4 in MAXQDA,[1] export all segments as a spreadsheet to *R*, and complete Phases 5 and 6 in *R* or similar programming language.

Phase 1: Data Selection, Collection, and Cleaning

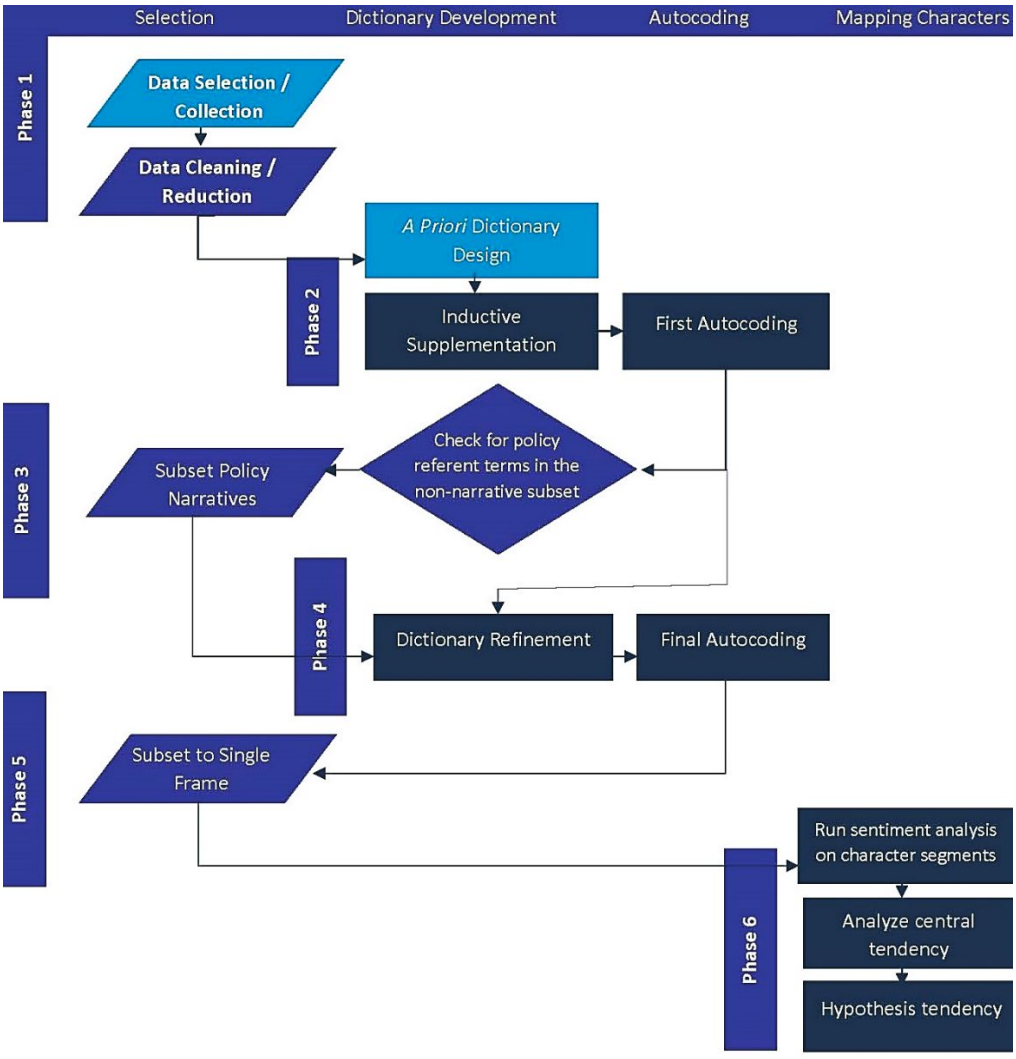
Textual data selected for automated content analysis must be in computer-readable formats, the dataset filtered to include only relevant material, and each item cleaned to contain only the text to be analyzed. For text documents, common computer-readable online formats that are also readable by humans include hNews, HTML, XML, and PDF. Some media archive formats, image formats, and hand-written documents are not computer readable and, therefore, will not work with this method of narrative analysis. The process of filtering media, such as removing items that do not fit a study's selection criteria, can be completed by hand or automatically (as in this study). Options exist for the collection of news articles through news archive services such as NexisUni, application programming interfaces (APIs), or webscraping (automatically downloading webpages). These collection methods may yield relatively consistent retrieved files that can be batch cleaned with a programming language such as *R* or *Python*. Cleaning may include the removal of items that will not be analyzed textually, such as emojis, captions, byline material, and other non-relevant content. During the process of cleaning, a catalog file of metadata should be created that contains file names, article titles, source name, date written, author, or other information that is associated with each file.

[1] MAXQDA Plus or MAXQDA Analytics Pro are the versions of the software that contains MAXDictio plugin for a number of functions listed here.

Phase 2: Design and Refinement of Dictionaries

In this method, dictionaries are used for autocoding content and take the place of codebooks that researchers use in hand-coding activities. Dictionaries are used to identify and categorize text that is indicative of a theme or concept. Before beginning the discussion of the dictionary development process used in this study, we define several relevant terms and a few technical aspects of designing dictionaries for computer-assisted analysis. Based on Krippendorff (2004) and similar seminal works on content analysis methods, a quantitative content analysis schema contains multiple components: 1) a *text corpus*—the texts being analyzed, 2) a *dictionary*—a list of terms associated with theoretical concepts of interest, 3) an unlimited number of *categories*—groupings of the terms that have shared theoretical characteristics, and 4) rules of identification for each term or phrase such as those for capitalization, plurality, and/or verb forms.

Figure 1. General process outline



A common way to create dictionaries is in table format, such as the spreadsheet-based dictionary sample in Table 1 that may be read into autocoding software, such as MAXQDA. The

sample, taken from the character dictionary for this hydraulic fracturing study, contains a column for the search item, its associated category, and rules for its identification. The rules of identification—whole word, case sensitivity, and starting letters—are entered as on/off (1/0) switches that dictate which forms of a term will be tagged. For example, the search item in row 1, "anti-fracking group," has been placed in the category *activist group.* Because "anti-fracking group" has the whole word and case sensitivity toggles turned off, the phrases "**anti-fracking group**s" as well as "Colorado **Anti-Fracking Group**" would be tagged during autocoding. The toggle for starting letters, which is irrelevant for the search items in this dictionary sample, becomes meaningful for words with prefixes or that are common portions of words. For example, the toggle would need to be activated when identifying terms like "sent" and "tree" to prevent words like "ab**sent**" and "s**tree**t" from being tagged.

Considerations about word forms are also essential in dictionary design. Both contextual checks of search items as well as conceptual reviews are necessary to avoid coding errors and design problems. Contextual checks are part of the process of inductive dictionary design (described below) and are beneficial to confirming phrase use, particularly in the case of phrases that potentially have multiple meanings. Reviews of the dictionary for conceptual adherence, as well as consistency in the level of detail of the search items, should occur once at minimum between dictionary development phases.

Table 1. A content analysis dictionary contains categories of search items and rules for term identification

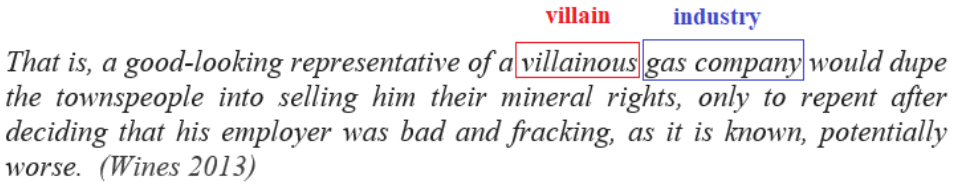
Category	Search item	Whole word	Case sensitivity	Starting letters
ACTIVIST_GROUP	anti-fracking group	0	0	1
ACTIVIST_GROUP	Aurora Citizens for Responsible Energy	1	1	1
ACTIVIST_GROUP	Citizen's Alliance	1	1	1
ALLIES	advocacy group	0	0	1
ALLIES	Advocate	0	0	1
ALLIES	Backer	0	0	1
EMPLOYEE	Assistant	0	0	1
EMPLOYEE	consult firm	0	0	1
EMPLOYEE	Employee	0	0	1
EMPLOYEE	Worker	0	0	1
ENVIRON	Conservationist	0	0	1
ENVIRON	Ecologist	0	0	1
ENVIRON	Environmentalist	0	0	1

A Priori Dictionary Development

Typical coding schema development for qualitative content analysis includes several iterations, including initial theoretical development and then cyclical revision of codes. An initial, theory-based, deductive development of coding schema should reflect terms and categories that are directly relevant to the framework used. This stage of development will result in an a priori starting list of search terms and categories reflecting concepts or variables in research questions, the literature review, and hypotheses (Miles et al., 2020). Although every search term may not

occur in the analyzed content, the value of this exercise extends beyond the results of the analysis by helping the researcher define the bounds of their study. As is the case with the development of qualitative coding schema for research, the initial development of dictionaries will yield categories that need to be merged, eliminated, or further refined. An assessment of the categories includes consideration of the level of detail, reflection on theoretical concepts, and structural unity (Mileset al., 2020). This assessment can occur after the development of the initial dictionary as well as during contextual checks after the first round of tagging.

NPF Character and Policy Actor Dictionaries. Because NPF characters are identified per chosen unit of analysis (e.g., article, Tweet, paragraph, sentence), an automated method must allow for fluidity in character assignment. For instance, the Colorado Oil and Gas Association can be cast as a villain in one article, play no NPF character role in another, and be a hero in a third. The approach to investigate the portrayal of policy actors is to identify sentences that contain NPF character search terms, tag the terms, and then tag the associated actors. For example,



A priori dictionary development for NPF character identification will include categories named for the characters defined in the NPF literature. The categories can include the standard character list of *villain*, *victim*, and *hero* or an extended group (i.e., *opponents*, *allies,* and *experts*). The a priori dictionary may be populated with search terms for each of the NPF characters derived from synonyms related to their theoretical definitions. For example, "criminal," "perpetrator," and "crook" could be (and are in this study) search terms that may be used for the *villain* category (see Table 2 and Appendix D for more examples).

To be able to connect policy actors to NPF characters, a policy actor dictionary must also be developed. Although much of this dictionary will be populated with inductive supplementation as discussed in the next section, it is valuable to consider the types of terms that will fill relevant categories of actors in the policy domain. Consider categories of actors that are relevant to the policy domain and the degree to which these categories need to be divided. For instance, depending on the goal of the study, *government* actors might be divided into the subcategories of *international*, *federal*, *state*, and *local*.[2] A priori terms representing the categories could potentially include both general terms such as "resident" or "spokeswoman" as well as proper names such as "Flatirons Responsible Energy" or "National Wildlife Federation."

Policy Referent Dictionary. To be effectively studied with the NPF, media must qualify as a policy narrative—which, by definition, should include a policy referent and at least one character. To ensure that the dataset only contains policy narratives, a policy referent dictionary may be

[2] If the researcher chooses to code using general and subdividing categories containing overlapping search terms such as "government" and "local government," the more general term tag may be dropped when a double-tagging occurs. In *R*, this may be accomplished using decision-making structures (i.e., if-else or case statements). However, this can often be avoided by increasing specificity of the search term such as using "the government" and "local government" rather than "government," as was done in this study.

constructed. This is an optional step as the sorting may otherwise be done manually when the media is in *Phase 1: Selection, Collection, and Cleaning*. Even if this is done manually, the construction of this dictionary will assist the researcher in the sorting process because they will have increased clarity about what media qualifies as a policy narrative. A policy referent dictionary will contain words that indicate the presence of a policy discussion, often reflecting processes or actions that citizens or government could take. Potentially, some overlap with the solution dictionary can occur if one is being designed.

Table 2. Design approach and a priori dictionary examples

Dictionary	Dictionary Design Approach Example	Examples of A Priori Dictionary Terms
NPF Characters and Policy Actors	NPF VILLAIN: Synonyms about those that cause the problems in stories (Jones and McBeth 2010).	criminal, perpetrator, crook
	INDUSTRY: General character phrases and proper names referring to characters that are part of the oil and gas industry.	oil and gas industry, gas developer, industry official, Anadarko
Policy Referent	Terms that indicate the presence of a policy discussion, primarily reflecting policy processes or actions that citizens or government could take. This dictionary may heavily overlap with a solution dictionary.	tax, vote, political, ban, legislature, governor, deregulation
Solutions	Terms that suggest policy solutions, both general and specific. Some terms may be the same as those in the policy referent dictionary. Often indicated by the presence of certain types of words such as modal auxiliaries ("need to," "should"), superlatives ("is better than"), and present tense verbs ("to improve").	taxation, subsidies, regulation, law, mobilize voters, Paris Climate Accord
Issue Frames	CLIMATE CHANGE: Words or phrases that are indicative of the discussion of an issue frame within a policy domain, in this case, climate change.	greenhouse gas, global warming, carbon dioxide

Solution Dictionary. Researchers may seek to identify policy solutions, which the NPF literature also calls the "moral of the story" or "call to action" (Shanahan et al., 2018, p. 336). Solutions may include proposed specific or general policy fixes. The study design will define how these solutions are categorized. For instance, a basic codebook on solutions may solely seek to determine the absence or presence of solutions, in which it would not be necessary to categorize the solutions. However, for purposes of classifying solutions, the level of government, dominant

policy instrument, or other solution characteristics may serve as broad categories in which to capture a varying range of solutions. In conceptual a priori dictionary design, it may be important to consider attaching actions to general or specific policy solutions. To increase the precision of solution identification, these terms may need to include present tense verbs ("go vote") but may also include modal auxiliaries ("need to," "should") and superlatives ("is better than").

Frame Dictionary. Initial development of a frame dictionary is based on the conceptual definition of frames, the choice of which may vary depending on the theoretical basis for the investigation as discussed above. Terms in a frame dictionary should be indicative of the ways in which the frames are discussed, such as terms that invoke certain imagery or narrow a reader's attention to a specific interpretive lens rather than just a topical focus. For example, the a priori construction of a frame dictionary sometimes employs aspects of a broader topic called news frames (e.g., climate change is a topic, but it could be narrated by using various frames such as *economic, health and safety, environment, political*). We chose to focus on issue frames in this analysis and developed the dictionary to contain narrower subcategories within the oil and gas policy domain (e.g., *property rights, jobs, worker safety, climate change, air quality*). There are other approaches to defining frames that could be substituted, but it is important to build the frame dictionary at a conceptual level. The terms included in the dictionary must be mutually exclusive in that they are indicative of only one frame.

Inductive Dictionary Supplementation

A second step of dictionary development employs an inductive search process in which meaningful words and phrases that were not identified in the initial design are added to the dictionary. With the help of text mining techniques, the analyst can search the corpus, selecting terms that fit the conceptual reasoning of the study. With a large text corpus, such as the one in this study that included the text of 5,708 articles, several techniques may assist the researcher including the generation of parts-of-speech lists, word and phrase frequencies, and topical associations. Inductive dictionary development can be accomplished using qualitative analysis software (such as MAXQDA Pro, which contains the MAXDictio program) or a programming language (such as *R*—as is done in this research). The generated lists are visually searched for words and phrases that fit the dictionary or categorical criteria, which are then added to the search items and assigned a category. If uncertain, viewing a word in context may be helpful with term selection. Table 3 includes examples of software tools that will be able to assist in these searches.

Table 3. Inductive supplementation assistance tools

Inductive Approach	MaxQDA/MaxDictio[a] Function	R Software[b]	Description of output
Parts-of-speech analysis	indirectly with word frequencies function (using case sensitivity or word ending rules[c])	*openNLP*	identification of proper nouns, verbs, adjectives, superlatives, modal auxiliaries
Word and phrase frequency	word cloud (list mode) or word frequencies function, word combinations	*tm, tidytext*	frequent terms and term counts in text corpus
Topical associations	word tree (visual)	*tm, topicmodels*	relationships between terms
Term in context	keyword-in-context	*grep* (base), *which* (base), *str_which* (stringr)	phrase in segment
Regular expressions (regex)	N/A	*grep* (base), *str_extract_all* (stringr)	strings that fit a specified pattern

[a] *A good resource for working with MAXQDA is Kuckartz, Udo, and Stefan Radiker. 2019. Analyzing Qualitative Data with MAXQDA: Text, Audio, and Video. Switzerland: Springer Nature.*

[b] *Numerous blogs and resources exist for using text analysis programs in R. A good place to start is this free e-book: Silge, Julia, and David Robinson. 2020. Text Mining with R: A Tidy Approach. O'Reilly Media.* https://www.tidytextmining.com/index.html

[c] *Lemmatization settings control whether words can be reduced to their root words (e.g., "running" to "run"). Word endings are often important to identifying phrases in various tenses.*

One helpful method for generating lists of names and phrases that fit a general pattern is the use of regular expressions or regex, available to those programming in *R*. For instance, a list of all four-letter acronyms may be found using an expression such as "*[A-Z]{4}"* in a command like *str_extract_all*:

str_extract_all("[A-Z]{4}",dataframe$text, simplify= FALSE)

Because regex also allows coders to skip words in phrases, grab words of unknown length, or include or disregard punctuation, it can be quite helpful for inductive supplementation as well as tweaking dictionary phrases to capture only the desired forms.

As a supplemental method for frame dictionary refinement, *R* coders may use LDA to inductively investigate topical associations using the R package, *topic models*. LDA provides scores that show how closely words are positioned in the text. The primary reason that we

recommend utilizing LDA for frame dictionary supplementation is because it automatically detects the patterns and co-occurrences of words. The resulting topic groupings can be interpreted as ways of framing an issue, as LDA identifies and groups specific keywords used as framing devices (Jacobi et al., 2015). The granularity, or level of detail determined by the number of topics, may result in broader "themes" or finer "issues," so this number should be conceptually driven. There are several general steps to the LDA process:

1) Convert text into a document-term matrix. A document-term matrix stores the frequency of terms in the collection of documents using *RWeka* and *tm*.
2) Optimize the number of topics. In order to correctly parameterize the model, an iterative "elbow" method may be used to identify optimal clustering of the data. With this approach, the researcher can iteratively increase the number of topics for an estimated range of topics, plot the sum of squared errors, and then observe the topic number at which an "elbow" or kink appears in the plotted data.[3]
3) Run the clustering analysis at the optimal number of topics, outputting the results to a spreadsheet for visual search.

Although frame dictionaries should be primarily conceptually designed to ensure construct validity and theoretical alignment, this exercise is useful for correctly associating terms as well as highlighting missing frame categories and terms, which enhances content validity—or the full representation of concept indicators. Construct validity—which addresses whether we are measuring what we intend to measure—may be more difficult to attain in automated content analysis. However, the researcher can make significant improvements with the following refinement activities in *Phase 4* such as manually checking the coded segments.

First Autocoding

The next step is a test-run of the dictionaries on the text corpus. MAXDictio is specifically designed for the application of dictionaries to a dataset of text, though *R* programmers may adjust the author's software in Appendix F for their own use. The tagging of the text will result in the output of a spreadsheet (MAXDictio) or a dataframe with columns containing text segments, located terms, and/or their dictionary categories (Figure 2).

[3] Note that this method typically requires increased amounts of RAM to be able to analyze large text corpora. This study used 64GB of RAM.

Figure 2. Sample output after tagging for a) MAXDictio and b) R code that uses dataframes

a)

	A	B	C	E	H
1	Color	Document name	Code	Segment	Document group
2	●	2007-02-04_Outdoor_groups_rally_behind	Char_CO\CHAR_GOVT_STATE	A state lawmaker said he hopes to create a national model for balancing wildlife protection and energy development when he introduces a bill laying out guidelines for softening the impact of oil and gas drilling.	TimesCall
3	●	2007-02-04_Outdoor_groups_rally_behind	Char_CO\CHAR_ALLIES	Supporters say 55 environmental, hunting and fishing groups are behind the proposal.	TimesCall
4	●	2007-02-04_Outdoor_groups_rally_behind	Char_CO\CHAR_GOVT	The guidelines include reducing the amount of land disturbed by development; speeding restoration; and encouraging consultation between energy companies, landowners and wildlife officials.	TimesCall
5	●	2007-02-04_Outdoor_groups_rally_behind	Char_CO\CHAR_INDUSTRY	The guidelines include reducing the amount of land disturbed by development; speeding restoration; and encouraging consultation between energy companies, landowners and wildlife officials.	TimesCall

b)

date	paper	state	SorL	text	Category	word
2008-01-15	PittsburghPostGazette	Pennsylvania	L	"By putting the extraction plant in Pittsburgh, we are giving...	RESIDENT	farmer
2008-02-22	PittsburghPostGazette	Pennsylvania	L	The decision was hailed yesterday by environmental groups...	EMPLOYEE	manager
2008-02-22	PittsburghPostGazette	Pennsylvania	L	"At long last the Washington office has told the local Alleg...	EMPLOYEE	manager
2008-02-22	PittsburghPostGazette	Pennsylvania	L	The decision was hailed yesterday by environmental groups...	ENVIRON	environmental group
2008-02-22	PittsburghPostGazette	Pennsylvania	L	The decision settles 80 appeals filed about drilling in the for...	ENVIRON	environmental group
2008-02-22	PittsburghPostGazette	Pennsylvania	L	Drilling in the Allegheny National Forest is possible becaus...	GOVT_FED	federal government

Phase 3: Subsetting to Only Policy Narratives

NPF analysis is limited to application on policy narratives. As such, a dataset may need to be reduced to only textual data that includes a policy referent. This may be done manually during the data collection. To this end, the researcher may develop a policy referent dictionary to assist in the subsetting process. As modeled in Figure 1, this process includes a priori dictionary development and inductive supplementation followed by the first autocoding run (discussed in *Phase 2* above). After the first coding run is complete, the researcher may subset the data to exclude those texts not containing policy referents. At this point, an additional step may be included that involves checking the excluded textual data for policy referents by running a word/term-frequency analysis on only the excluded texts. The resulting list may be searched for additional policy referent terms, which may then be added to the dictionary. If this optional step is taken, the data should be autocoded and subset again, potentially yielding a slightly larger dataset. However, if there are no policy referents in the word frequency list, the step of autocoding again may be skipped.

Phase 4: Dictionary Refinement and Final Autocoding

Often manual qualitative coding relies on intercoder reliability to provide a measure of internal validity after a codebook has been refined and self-tested by the researchers. However, in an autocoding process using dictionary-based methods, the validity of the results is reliant on the validity of the dictionary. Dictionaries should be checked during construction for context and conceptual coherence, particularly if they are used to assign meaning. We briefly discuss two

different dictionary types—counting and interpretive dictionaries—and approaches to increasing internal validity before the final autocoding of the data.

Counting Dictionaries

Our solutions and policy actor dictionaries are used for tagging nouns, verbs, and proper nouns to identify who, what, where, and counting those occurrences. They are designed to investigate the co-occurrence of elements rather than the symbolism, rhetoric, or messaging embedded in communications. To a much higher degree in the counting than in interpretive dictionary design, the terms are found inductively, and the categories assigned as a result of known information (e.g., policy actor job, solution policy tools). To ensure internal validity for this type of counting dictionary, the terms must fit appropriately into the categories, the terms within one category need to be of similar scale (e.g., all corporations and not individuals and corporations), and cutoff term frequencies must be consistent if every term will not be entered into the dictionary (i.e., terms must occur more than X number of times to appear in the dictionary). This last item, term-frequency cutoff, becomes important as the size of the dataset increases.

In automated content analysis, although every term may not be captured, the point of using a large size dataset is to capture more generalization (possibly at the expense of nuance). For example, the cutoff for a proper name to be added to the policy actor dictionary must be above 25 times in this study. This helps the researcher to balance time input into dictionary design as well as reduce the unintentional weighting of one category, such as might occur if adding every named individual. Additionally, in the NPF, the names of policy actors in the narratives must mean something to readers to be valuable to a characterization. However, due to the journalistic norm of adding an actor's role in the same sentence as their proper name (i.e., "Bob Jones, Lafayette resident…"), those actors are not missed in the counting. Thus, the less familiar actors should still be captured by terms for their general policy actor category (e.g., "resident," "scientist," "advocate").

Interpretive Dictionaries

With dictionaries that provide assignments of meaning to text, such as the NPF and frame dictionaries in this study, internal validity is important, and high intercoder reliability (>95%) is necessary. Assessing the internal validity of an interpretive dictionary includes meeting criteria of both appropriate meaning and mutual exclusivity: 1) Is the term meaningful to the category (i.e., does "criminal" always imply the presence of a *villain* for all coders?)? 2) Does the term only belong to one category (i.e., does "enemy" fall into both *opponent* and *villain* categories)? With these criteria in mind, the most effective way of analyzing the level of agreement is to provide dictionary terms in random order removed from their assigned categories. Provide the categories available with their definitions as well as the category *none* to allow coders to reject the term or indicate its overlap into several categories. Researchers may be tempted towards designing larger dictionaries. However, small but meaningful and mutually exclusive interpretive dictionaries are valuable with the large datasets that are typically chosen for automated narrative analysis research—enough instances of a category should be found to be able to create reasonable generalizations.[4]

[4] Typically, the minimum is considered to be counts above 30.

Another check for internal validity is to run a correlation and clustering analysis after autocoding with the dictionaries. This check is designed to catch potential overlap of categories, which is especially useful in the case of defining frames. Multiple frames may occur in a single story, but clustering analysis is used to analyze frames at the article level. For NPF characters, articles typically include several character categories and thus clustering analysis may be at smaller unit (e.g., journalistic paragraph or Tweet). Clustering analysis requires the number of counted values for each category per unit of analysis provided—typically as a crosstab, matrix, or dataframe. An example of the results of such an analysis is provided from our study in Figure 4 in the *Hydraulic Fracturing Study Methodology* section below. Correlation values may be interpreted with the generally accepted ranges of the correlation coefficient in Appendix C.

Final Autocoding

After the data have been subset and autocoded with the dictionaries, the coded segments are inspected for conceptual coherence as well as validity. Although conceptual coherence should be relatively clear from inspection of the dictionary categories in the dictionary design phase, terms may be catching segments that reveal unexpected results. This may result from a few design issues including 1) incorrect dictionary settings for word or phrase specificity (e.g., only code the whole word, use case sensitivity, or use only starting letters); 2) specifying the incorrect form of a word (e.g., plural, verb endings); or 3) incorrect regex pattern matching. Time spent on refining dictionary terms and settings will result in higher internal validity in the second, and potentially final, round of autocoding.

Phase 5: Subset to Single Frame

In order to map identified policy actors (or groups of actors) onto NPF characters, we next restrict the dataset to a single frame. The reasoning for this lies in the potential for actors to change NPF character categories in various frames. The process of subsetting may significantly lower the size of the dataset, so the researcher may briefly investigate the descriptive properties of each category to be investigated. Primarily, is the number of data points per character category still adequate to be able to apply rules of normalcy and create reasonable generalizations?[5] Not every NPF character category may be fully represented in every frame as some frames are less contentious than others. However, for this single frame, the researcher may choose to use just the characters that are adequately represented.

Phase 6: Mapping of Policy Actors into NPF Character Sentiment Ranges

With the expectation that the construction of policy actors and characters will differ depending on the frame, we propose a method of relating policy actors to their associated NPF character roles within each frame. The sentiment analysis of sentences containing characters leads to a large volume of scores for each actor and character, which can be related to each other using descriptive and inferential statistical tools. There are several steps to this method: 1) evaluate sentiment in segments tagged as including NPF characters and policy actors, 2) use descriptive statistics to

[5] This is generally considered to be n>30.

investigate the distribution of the sentiment scores, and 3) relate measures of central tendency and hypothesis testing in order to "map" policy actors onto NPF characters.[6]

1) Evaluate sentiment in sentences within a frame for all NPF characters and policy actors

In the previous autocoding process, text segments have been tagged with character/actor categories and subset into a single frame. Sentiment analysis is most meaningful at the sentence level but can be evaluated at a slightly larger level of analysis such as the journalistic paragraph, Tweet, or caption. Beyond the paragraph level, sentiment analysis is not a useful exercise unless the analyst is just looking for understanding tone as positive or negative.

Sentiment analysis is used to evaluate the context around NPF characters and policy actors in this study. Sentiment analysis refers to the identification of emotions, positive and negative opinions, and evaluations within text. The reason for employing sentiment analysis in addition to our inductive dictionary design is to understand the emotion portrayed about each policy actor. One core assumption of the NPF is that "meaningful parts of policy reality are socially constructed" (Shanahan et al., 2018, p. 333). To analyze this social assignment of meaning to actors, objects, and processes in an automated fashion, an appropriate method needs to include evaluation of the words and phrases constructing the subject. Sentiment analysis addresses the socially constructed aspect of character interpretation by evaluating the context around a character or policy actor.

Although there are numerous sentiment analysis programs available, this analysis uses the psychology-oriented Harvard-IV dictionary as used in the General Inquirer software, which is a simple polarity analysis using a dictionary of words associated with negative (2,005 words) or positive (1,637 words) (Stone, 2018). These words are oriented towards psychological concepts, as well as evaluations such as *important, entrepreneurial,* and *failure*. The *Sentiment Analysis* package for R allows for the analysis of sentiment of a single word up to a whole article (this study assigned sentiment scores to sentences). The result of sentiment analysis on a segment of text with the General Inquirer dictionary yields a score that is between a negative pole (-1) and a positive pole (1). For example, a sentiment score of 0.133 (0.200 positivity minus 0.067 negativity) was assigned to this sentence: *Paul's light protests have been part of his and the Boulder County Protectors' effort to stop the oil and gas industry from drilling in Boulder County* (Arvenson, 2017).

This approach evaluates the linguistic context of the sentences that characters are found in. If characters are most often nested in sentences with negative sentiment, whether it is actually a direct construction about that character or not, it is arguable that the sentiment of that sentence is passed to the reader and associated with the character. Additionally, threats to the internal validity when using a dictionary approach (e.g., words may be inappropriately scored based on their context or include negation terms) may be minimized by the addition of sentiment analysis. Sentiment analysis also accounts for a larger portion of the identified words in a sentence, rather than depending on the correct interpretation of one or two dictionary words.

[6] For this phase, it is likely that the researcher will have to rely fully on *R* rather than on MAXQDA unless they are analyzing Tweets (MAXQDA does have a function for analyzing the sentiment of Tweets, but it will not assist with the mapping method described here).

2) Use descriptive statistics to investigate the distribution of the sentiment scores

After running the text through sentiment analysis and storing values with their respective sentences (in a new dataframe column in *R*), the next step is to investigate the descriptive statistics of each category. *FBasics* is an *R* package that may be used to summarize descriptive statistics of the sentiment for each policy actor and character category within a frame. Visual analysis using probability distribution functions allows the researcher to decide which measures of central tendency are most appropriate for comparison and whether statistical methods designed for normal distributions will be appropriate for application.

Distributions may very well peak off the central sentiment value of 0.0 or be heavily skewed, yet still be representative. However, if they are multimodal—which implies the presence of several populations—central distribution values may be misleading. The presence of multiple populations may indicate a shift in sentiment over time, poorly constructed dictionaries, or representation of multiple communities (e.g., mixing news sources that may construct policy actors differently). If multimodal distributions are present, consider investigating this as part of the analysis as it may yield increased nuance in your results.

3) Relate measures of central tendency and hypothesis testing in order to "map" policy actors onto NPF characters

To map the NPF characters to policy actors as would be the purpose in a manual NPF coding, Welch two-sample t-tests will establish whether coded *villains, victims, and heroes* (or, additionally, *allies, opponents,* and *experts* as we use in this study) hold significant relationships with particular policy actors. When NPF characters occupy a discrete space in the range of sentiment distributions, policy actor sentiment scores from the same group of articles may be mapped to them with some confidence. Based on this concept, this method identifies similarities of sentiment between policy actors and NPF characters by identifying those that hold the same sentiment (Welch t-tests that show an acceptance of the null hypothesis).[7] To demonstrate the mapping method on individual frames as well as analytical interpretation techniques, we walk through examples in the *Results* section of this study.

Method Premise

We use the above three steps to briefly demonstrate the statistical premise for the application of this method. Although the general method suggests subsetting to only one frame, we conduct this part of the statistical analysis across all frames to demonstrate that each NPF character's distribution of sentiment scores occupies a distinct space that can be used to "map" onto the sentiment scores of policy actors. An investigation into the sentiment distributions of segments coded with NPF characters shows that most are relatively normal distributions, though *allies*, *experts*, and *opponents* show slightly bimodal distributions—multiple bumps rather than one hump (Figure 3). Across frames, multimodality is not totally unexpected for these three characters because they may have slightly varying constructions in different frames. In contrast, *heroes*, *villains*, and *victims* are strongly unimodal likely because they have more universally consistent constructions.

[7] For Welch t-tests, the null hypothesis is that the true difference in means is equal to 0.0.

If the sentiment distribution of scores of each NPF character is significantly different from each other, they may be considered distinct. Welch two-sided t-tests performed on each character category of sentiment scores relative to every other character demonstrate that NPF characters have statistically different distributions of the sentiment, except for *heroes* and *experts* above the 90% confidence level (Table 4). Considering the commitment of journalists to report with low levels of bias, it is conceivable that *experts* may be equivalent to *heroes* in news policy narratives, particularly when it comes to more technical, less value-driven frames, like those about wastewater injection or air quality in hydraulic fracturing for shale gas. Although the table shows a clear distinction between categories, within one frame the separation between characters has the potential to be even more clearly defined.

Additionally, the distinction between characters may be increased depending on the type of media. With our dataset of news articles, the frequencies of *allies*, *experts*, and *opponents* (n=2942, 4667, and 15,359 respectively) relative to the low frequencies of traditional NPF characters suggests three possibilities: 1) the dictionary-based terms for *heroes*, *villains*, and *victims* may not pick up all the subtleties of those characterizations; 2) journalists avoid using extreme characterizations; and 3) journalists frequently present two sides of an issue as well as an expert to provide "ground truthing" with evidence or expertise. However, if a researcher were using a sample containing op-eds, Tweets, or other intentionally biased text, the differences in sentiment score for characters would very likely be even more pronounced than found here.

Figure 3. Character sentiment distributions with mean and 1st and 3rd quartiles

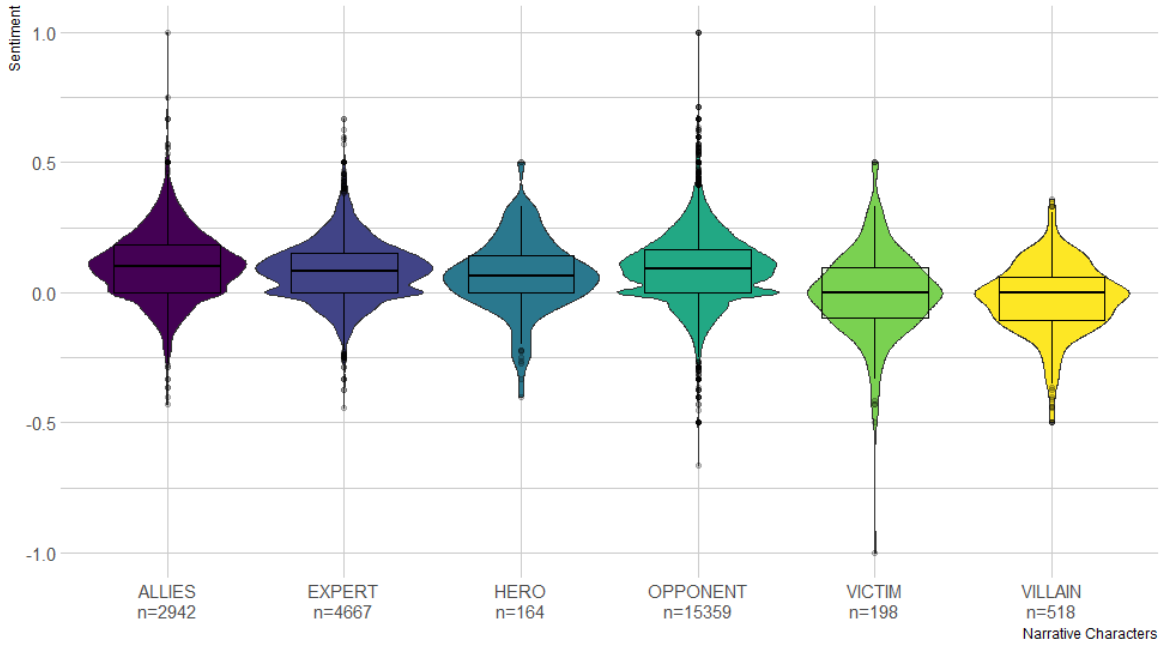


Table 4. Two-sided t-tests of NPF characters

	Mean difference μ_1-μ_2	Std. Error	t-statistic	Pr(>|t|)	Significance
ALLIES-EXPERT	0.023	0.003	7.194	0.000	***
ALLIES-HERO	0.037	0.012	3.038	0.003	**
ALLIES-OPPONENT	0.015	0.003	5.337	0.000	***
ALLIES-VICTIM	0.125	0.011	11.376	0.000	***
ALLIES-VILLAINS	0.148	0.007	19.856	0.000	***
EXPERT-HERO	0.015	0.012	1.204	0.230	No
EXPERT-OPPONENT	-0.008	0.002	-3.639	0.000	***
EXPERT-VICTIM	0.102	0.011	9.438	0.000	***
EXPERT-VILLAINS	0.126	0.007	17.339	0.000	***
HERO-OPPONENT	-0.022	0.012	-1.853	0.066	+
HERO-VICTIM	0.088	0.016	5.442	0.000	***
HERO-VILLAINS	0.111	0.014	7.950	0.000	***
OPPONENT-VICTIM	0.110	0.011	10.246	0.000	***
OPPONENT-VILLAIN	0.133	0.007	18.792	0.000	***
VICTIM-VILLAIN	0.023	0.013	1.812	0.071	+

*Note: =p<0.1; *p<0.05; **p<0.01; ***p<0.001*

HYDRAULIC FRACTURING STUDY METHODOLOGY

To illustrate how the use of automated tools—and specifically the method described here—can advance policy narrative research, we autocoded 5,708 state and local news articles focusing on hydraulic fracturing of oil and gas. We used this automated method to investigate the relationship between narrative components—namely, characters and proposed solutions—and the frames that tie policy narrative elements to one another. In this section, we provide details of our use of the textual analysis process described above.

Data

The dataset utilized in this paper consists of news articles collected from six state and six local print news sources from January 1, 2007 to December 31, 2017.[8] The initial year of 2007 was chosen because that is the year that horizontal hydraulic fracturing technology allowed for rapid expansion of oil and gas development in the United States. The news sources were chosen based on the circulation level but limited to only those newspapers that included online access or have archives available through Newsbank or Nexis (online news repositories) for the entire sampling period. The dataset is composed only of articles related to the development of unconventional oil and gas. The search terms "hydraulic fracturing" and "fracking" were used to filter the articles to be able to limit the sample to only those containing references to shale oil and gas development using hydraulic fracturing. Six states—comprising the top producing states in the United States—were selected based on their estimated total production of oil and gas in 2017 as reported by the US Energy Information Administration. These states are Texas, Pennsylvania, Oklahoma, Louisiana, North Dakota, and Colorado. With filtering by date and search terms, 20,417 articles were collected from the 12 newspapers.

Several data filtering and cleaning processes were implemented: opinion pieces and letters to the editor were removed and data were screened for duplicate articles. Byline material, captions, and titles were used to catalog as metadata information in a separate spreadsheet but were removed from the text for automated analysis. After these cleaning processes were applied, 6,008 articles were available for the analysis. However, after the policy narrative subsetting process (described below), the total number used in the analysis decreased to 5,708. Appendix A lists the newspapers chosen to represent state and local news sources (based on circulation and archive availability) as well as the final article count from each source.

The unit of analysis in this research is the article, though the unit of observation is the sentence within a policy narrative. The primary reason for aggregating up to the article level is that frames are typically presented at the article level. However, multiple frames can occur within a single policy narrative. Although characters are identified and their sentiment evaluated at the sentence level, results are aggregated to the article level. When several characters occur within one sentence, both characters are assigned the same sentiment.

Dictionaries

For this study, dictionaries were designed for the identification of policy narratives, NPF characters, frames, and solutions. The dictionary designs followed the processes detailed in the previous sections using a priori theoretical design, inductive supplementation, and refinement. Due to the large volume of words with the text corpus, all terms that occurred with a frequency of 0.4% and over (occurring in more than ~25 articles) were considered for use in the dictionaries, though some were included that occurred at lower frequencies because they were generated in more specific lists (i.e., lists of proper nouns or acronyms). After an initial autocoding of the text, words

[8] The news articles were originally collected for a larger study on policy debates related to shale oil and gas development as described in (Berardo et al., 2020). Funding support for the larger study came from the National Science Foundation Award Foundation, Decision, Risk, and Management Sciences Program (grant SES-1734310 and SES-1734294).

and phrases were examined in the context of their sentences for an additional determination of their validity for the dictionary and further dictionary refinement.

Policy Referent

To ensure that our dataset of articles only included policy narratives—which must include a policy referent and at least one character—a policy referent dictionary was created. The dictionary was designed to recognize policy discourse, attempting to detect both general and specific policy solutions as well as political behaviors, actors, or venues. The initial dictionary was a product of brainstorming dimensions of politics (e.g., "vote," "election," "tax," "senator"). The terms were then supplemented inductively by using a word/phrase frequency program, yielding more general terms, but also proper names of specific policies (e.g., "Safe Drinking Water Act"). This dictionary contained a number of overlapping terms with the solution dictionary. However, unlike the solution dictionary, because its purpose was solely to determine *whether* a policy discussion was occurring to either include or exclude it from the study, no categories were necessary.

Issue Frame Dictionary

As discussed earlier in this chapter, for this study we selected issue frames as the frame-type of our focus. The initial issue frame dictionary was developed with general guidance from the theoretical definition provided in Chong and Druckman (2007). Initial terms represented the key expected areas of discussion related to energy production and development. These terms, derived from brainstorming, were used to create categories and key terms. Next, the dictionary was inductively supplemented using frequency lists, and an LDA analysis was used to check our topical associations. In order to optimize the number of topics to parameterize the model, the elbow method was used to find an optimal number of 13 topics. While the results of the LDA model did not determine our final categories, this exercise was useful in associating terms as well as showing us issue frame categories and terms that were missing from our inductively created dictionary. After dictionary category and term refinement with LDA, we found a total of 18 categories. Table 6 provides example terms for each issue frame (category or subcategory) and identifies how the issue frames align with broader "news frames" (as defined earlier in this chapter) for the group.

NPF Characters and Policy Actors

In this study, NPF characters and policy actors have different emphases—the character dictionary assists with interpretation while the actor dictionary is primarily for counting. However, they both contribute to the same end goal: relating the two to understand how policy actors are characterized in policy narratives.

The general approach to the dictionary design along with examples of each category are detailed in Table 5. The NPF dictionary categories and terms were based on synonyms of the NPF character definitions (Table 5), which were then inductively supplemented from word frequency lists. The policy actor a priori dictionary was created by brainstorming and categorizing the actors involved in the issue area of hydraulic fracturing of oil and gas. The policy actor types used in this study are entity actors, general groups, and named people. Entity actor category codes include *industry*, *industry ally*, *local government*, *state government*, *federal government*, and *activist group*. The terms in these categories are proper names of companies, government agencies, or groups. Individuals associated with these groups were included as named people with a code

associated with their role (e.g., Governor Hickenlooper would be categorized as a *named state government* actor). General group category codes include *environment*, *resident*, *government*, and *employee*. As the type implies, these categories are populated with general terms rather than proper names such as *environmentalist*, *rancher*, and *manager*.

All search terms in this character and policy actor dictionary are mutually exclusive; however, it is possible that one character may be tagged with a title (captured here in the entity categories) and named people category code within a single sentence. For instance, a sentence containing a named person with their title "US Senator for Colorado, Cory Gardner, said…" would be tagged as both *state government* and *named state government.* Thus, care was used with interpretation of the named people category code analysis.

Table 5. NPF Character and policy actor dictionary development

Group	Dictionary design approach	Character Code	Examples of dictionary terms
ENTITY ACTORS	General character phrases and proper names referring to characters that are part of the oil and gas industry.	INDUSTRY	Anadarko, oil and gas industry, gas developer, industry official
	General character phrases and proper names referring to characters that are allies of the oil and gas industry.	INDUSTRY ALLY	trade group, Flatirons Responsible Energy, Oil and Gas Association
	General character phrases and proper names referring to characters that can occur at the local level of government	GOVT LOCAL	city council, county commissioner, mayor
	General character phrases and proper names referring to characters that can occur at the state level of government.	GOVT STATE	health department, state lawmaker, state legislator, Water Resource Board
	General character phrases and proper names referring to characters that can occur at the federal level of government.	GOVT FED	Obama, Bush administration, federal land manager
	Only proper names of activist groups identified to be opposed to oil and gas development.	ACTIVIST GROUP	National Wildlife Federation, Wilderness Society, Stop Fracking Wayne County
GENERAL GROUPS	Descriptions of general characters specifically referencing environmental alignment.	ENVIRON	environmentalist, preservationist, tree hugger
	General character phrase referencing resident or community members.	RESIDENT	tenant, locals, rancher, Cherokees, community member, homeowner
	General terms referencing government. These terms could apply to various levels of government.	GOVT	Senator, governor, bureaucrat, legislative committee
	General character phrases referencing employee or workers.	EMPLOYEE	manager, spokesman, spokeswoman, political consultant
NPF CHARACTERS	General character phrases referencing experts.	EXPERT	scientist, geologist, professor
	Synonyms about those that cause the problems in stories (Jones and McBeth, 2010).	VILLIAN	criminal, perpetrator, crook
	Synonyms about those that fix or attempt to fix the problems in stories (Jones and McBeth, 2010).	HERO	hero, winner
	Synonyms about those that are harmed by the problems in stories (Jones and McBeth, 2010).	VICTIM	victim, casualty, fatality, injured party
	An individual, organization, or government entity that is not explicitly blamed, but is identified as holding a policy position with which the author disagrees (Merry, 2016).	OPPONENT	competitor, adversary, antagonist
	An individual, organization, or governmental entity that is not explicitly praised, but is identified as holding a policy position with which the author agrees (Merry, 2016).	ALLIES	proponent, supporter, enthusiast
NAMED PEOPLE	Named people from the following groups: GOVT FED, ACTIVIST GROUP, RESIDENT, EXPERT, GOVT STATE, GOVT LOCAL, GOVT FED, INDUSTRY, INDUSTRY ALLY	Add "SP" at end of group	Chad Warmington, Ken Salazaar

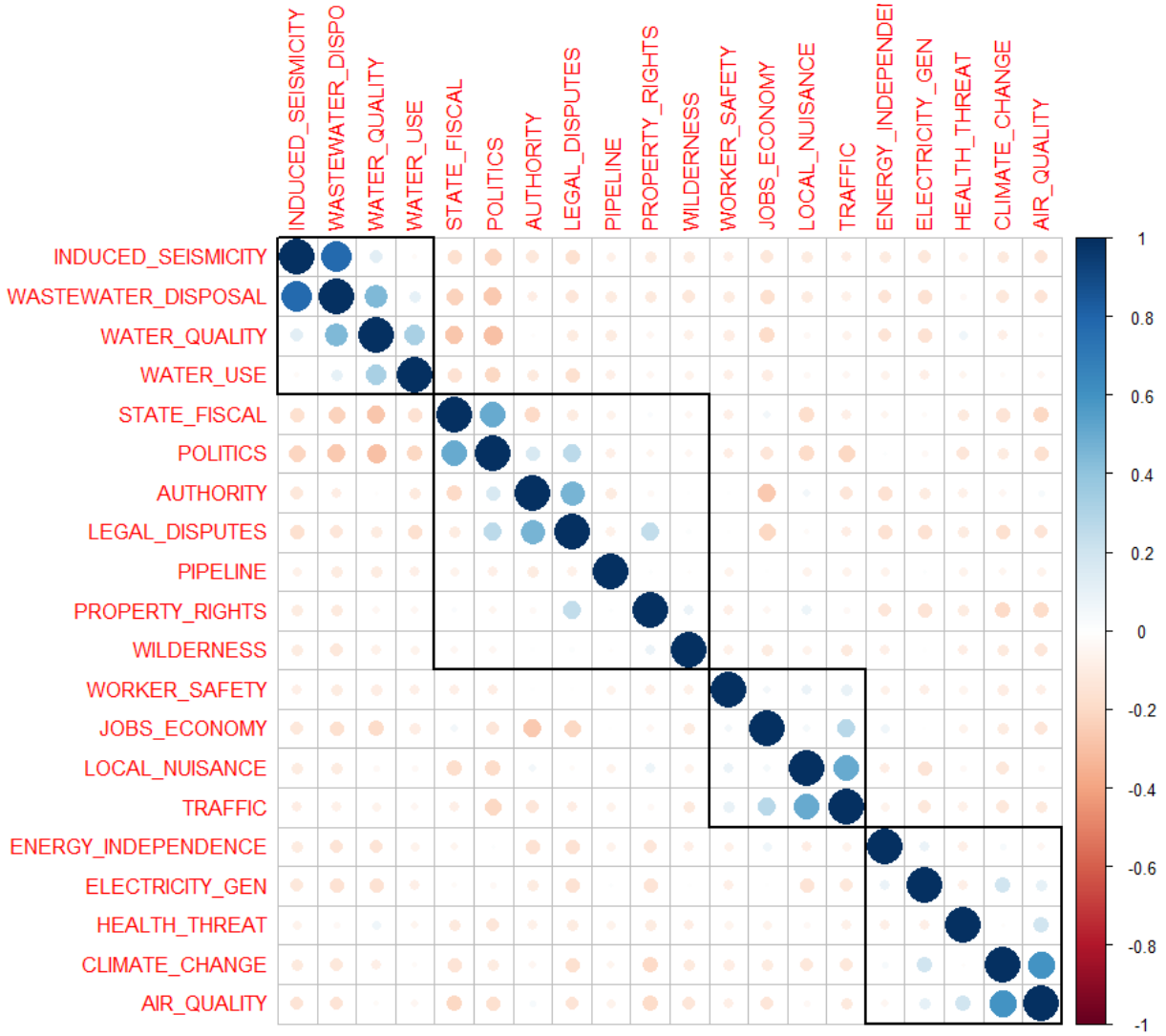
Table 6. Final frame dictionary design

News Frames	Dictionary Categories/Issue Frames	Examples of Dictionary Terms
Water/Disposal	INDUCED SEISMICITY	quake, infrastructure damage, faults
	WASTEWATER DISPOSAL	reinjection, injection well, wastewater
	WATER QUALITY	brackish, toluene, radioactive
	WATER USE	water consumption, amount of water used, drought
Political/Legal	STATE FISCAL	appropriations, budget, fiscal
	POLITICS	protest, public disapproval, policy
	AUTHORITY	moratorium, extension, hearing
	LEGAL DISPUTES	legal, lawsuit, court
	PIPELINE	natural gas pipes, right-of-way, energy hub
	PROPERTY RIGHTS	royalties, mineral owner, landowner
	WILDERNESS	wilderness, woodland, prairie chicken
Local Effects	WORKER SAFETY	OSHA, deaths per, workplace safety
	JOBS ECONOMY	jobs, employment, hiring
	LOCAL NUISANCE	odor, noise, dust
	TRAFFIC	trucks, highway, driver, collision
Debate about the Use of Energy Types	ENERGY INDEPENDENCE	energy security, Middle East, Saudi Arabia
	ELECTRICITY GENERATION	renewable credit, wind production, electricity
	HEALTH THREAT	immune system, respiratory, cancer
	CLIMATE CHANGE	greenhouse gas, methane leak, warming potential
	AIR QUALITY	particulate, ozone, air pollution

Some of these categories co-occurred so often they could potentially be considered as aspects of the same issue frame. After autocoding with a refined version of the frame dictionary, we ran a correlation and clustering analysis to investigate the distinctness of our dictionary

categories. This method uses the tagged category counts, representing issue frames, at the article level. We found a high degree of positive correlation between a number of issue frames (Figure 4) suggesting that we could combine several of these issue categories. For instance, *wastewater disposal* and *induced seismicity* are correlated, as are *politics* and *state fiscal*, *climate change* and *air quality*, and *local nuisance* and *traffic*. However, for the results presented here, we decided to keep these issue frames separate to add a more nuanced investigation into the relatedness of aspects of issues. Figure 4 also reveals the distinctness of inversely-correlated frames (implying that when

Figure 4. Correlation and clustering analysis of frames in autocoded articles



one frame increases the other decreases), such as *jobs and economy* and *authority*, *politics* and *water quality*, and *wastewater disposal* and *state fiscal*.

Solution Dictionary

An initial solution dictionary was designed using the NPF concept of "moral of the story"—a policy solution that may end in a call to action (Shanahan et al., 2018). As with the policy referent dictionary, which contains some similarly derived terms, the solution dictionary

may include general steps to achieving a policy goal, a stated policy preference, or named policies. To reduce the complexity posed by the large number of proposed solutions in the news articles, we employed a categorical coding design by policy tool (e.g., *regulatory, subsidies, taxation*). Though this categorization focused on proposed government solutions, we added a category for those that were oriented towards citizen action. To capture general statements of solutions to policy problems, we created the category, *general solutions*. Identified general solutions included phrases that suggest the need for a solution. For example, statements including a modal auxiliary (such as *need to*, *should*), indicated that they are proposing solutions. Additionally, phrases about the future (i.e., *for our future*), superlatives (i.e., *is better than*), and verbs in the present tense (i.e., *to improve*) usually pointed to solution statements. The dictionary was supplemented with named policy solutions by generating lists of proper names and acronyms.

Subsetting, Mapping, and Analysis

After a final autocoding, we subset coded segments into separate issue frame categories. After running the segments through sentiment analysis, the resulting data contains segments that are each associated with categorical tags and sentiment scores.

We investigated the relationships between the frames and coded narrative elements using the mapping technique presented above as well as regression. Ordinary least squares (OLS) regression analysis was performed with the package *lm* in *R* in order to address the research question that asks how frames, characters, and solutions are related. There is no assumption of causality with the use of regression in this study, rather it is used to investigate the relationship between frame, character code, and solution code. The general theoretical relationship between variables is frame $\approx f$(characters + solutions). The regressions of each frame were calculated using frequency count matrices, which are large tables containing a row for each article with a column for each frame. Because more than one frame identifier can occur within one article, these counts are whole numbers equal to or greater than zero. Similarly, these large matrices were constructed for characters and solutions. The probability distributions of characters, solutions, and frames are each approximately normal. For these reasons, OLS is suitable for this analysis.

Measures of central tendency, such as statistical mean, kurtosis, skew, and quartiles, were calculated for character and policy actor sentiment scores with the R package, *BasicStats*. We also analyzed the Welch two-sample t-tests for characters and policy actors with the base R function, *t.test*. These scores allow for mapping policy actors onto NPF characters for each frame.

RESULTS

The results of this analysis suggest that frames are often correlated with certain characters and solutions. Using OLS regression analysis, sentiment analysis, descriptive statistics, and hypothesis testing, we find relationships between frames and characters and solutions. We also relate certain policy actors to NPF characters. The general form of the regression is FRAME ~ β_0 + β_1CHAR1 + β_2CHAR2…+ β_3SOLN1+ β_4SOLN2 + ...

To investigate the relationship of frames with solutions and characters, we first calculated OLS regression statistics of a single frame against all solutions and characters using frequency

count matrices. As a second step, we evaluate the sentiment associated with characters and policy actors to show how policy actors relate to NPF characters in this semi-automated method of textual analysis. The results of this investigation show that all frames have significant relationships to characters and solutions (Table 7). We briefly discuss several examples of significant findings from all those regressions (see Appendix A for regressions).

An interesting result we mentioned in the *General Method Description* section, is that the NPF characters *hero* and *experts* hold a similar overall sentiment signature, whereas all other NPF characters have a significantly different sentiment distribution (Table 4). This finding suggests that the heroes of news articles may be experts, potentially influenced by the journalistic norm of presenting unbiased information. In the examples presented below for individual frames, we analyzed these characters separately, as they are discussed in NPF literature.

Frame: State Fiscal

An example of a finding that suggests high predictability of elements in a certain frame is the *state fiscal* frame. The predictors explain much of the variance of the issue frame (R^2_{adj} =0.777, F(7,5696)=2,834.88, p<0.001). The government policy actor codes (significant above the 99.9% confidence level) were relatively predictive of the frame, suggesting that policy narratives containing frames about state budgets have a predictable formula, even across six state and local papers. Based on an understanding of how news articles are constructed, it is highly unlikely that journalists start with a policy actor and *then* create a frame. The interpretation is of co-occurrence, but not of causation (i.e., the independent variables of characters and solutions likely did not determine the chosen frame (the dependent variable)). The significant policy actors in the *state fiscal* frame were found to be *activist group, general govt*, *local government*, and *named people* (categories ending in SP in Table 7) at the *state* and *local* levels. However, the coefficients in this regression suggest that as the frequency of some actors increase in a narrative, the frame terms decrease. For example, the coefficients (regression results in Appendix B) for *activist group* and *local government* ($\beta_{ACTVISTGROUP}$=-0.296, $\beta_{LOCALGOVT}$ = -0.065) have an inverse relationship with this frame. Therefore, we focus on those with positive coefficients.

Table 7. Regression Variables and Significance

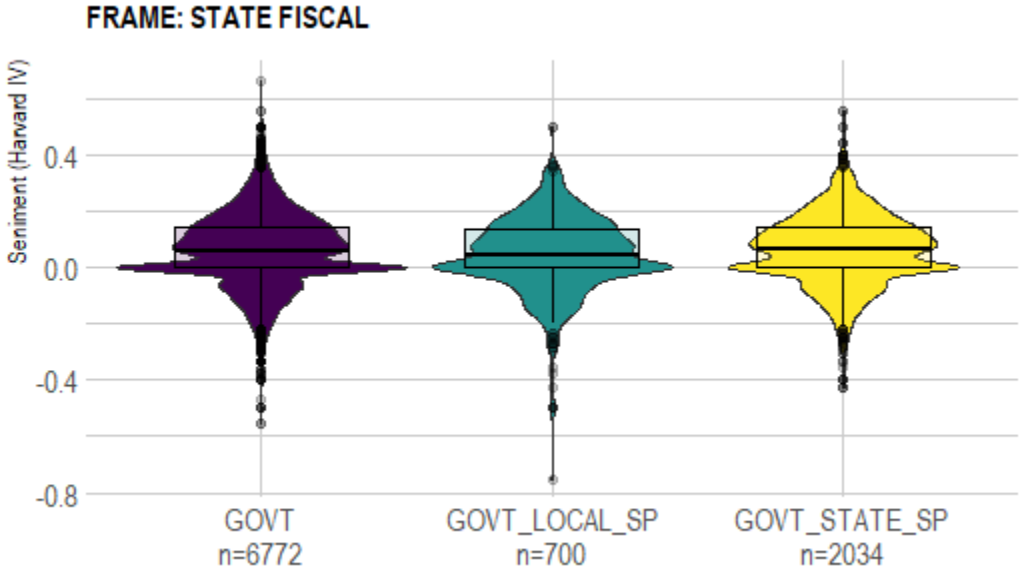
		PROPERTY RIGHTS	STATE FISCAL	JOBS ECONOMY	WORKER SAFETY	CLIMATE CHANGE	AIR QUALITY	HEALTH THREAT	LOCAL NUISANCE	INDUCED SEISMICITY	WATER QUALITY	WATER USE	WASTE WATER DISPOSAL	ENERGY INDEPENDENCE	PIPELINE	POLITICS	AUTHORITY	LEGAL DISPUTES	ELECTRICITY GEN	TRAFFIC	WILDERNESS
SOLUTIONS	BAN	+					***	+	***					***	***	***	***	***			
	CITIZEN ACTION		*	***		+		***	***		*			*		**	***				
	GENERAL	***	***	***	***	**	***				***		*			+	***	**			***
	GOALS					***	***		**									**	***		
	GOALS SP															+	***				
	INFORMATION		*		+	**	***	***		***	***	*	***				***				***
	INFORMATION SP				***				***		**										
	PERMIT	**	*				*		**			***	***		**		+				***
	PERMIT SP						+				***		+			***		***			***
	REGULATION		***	**	*	*	***		***	***		*	+	*		***	***	***			***
	REGULATION SP			*							***		***					***			***
	SUBSIDIES	*														+	+	+	***		
	SUBSIDIES SP			**		**								*							
	TAX	**	***	**		*	*				**			+	*	***	***		*		**
	TRAINING		*	***	*						**										+
	TRAINING SP			+																+	
CHARACTERS	INDUSTRY	***	**	***	**			*	*	***		**	**	***		***	+	+	**		***
	INDUSTRY ALLY	*			***					**		+	+		***			***	**		
	GOVT LOCAL		***				*				***	*	**	**		**	***	***			
	GOVT STATE			**	***	*			***	***	***		***	*		***	***	***			**
	GOVT FED	*	**	*		***	***		**	***	***		***	***			***				***
	ACTIVIST GROUP	*	***	*			***		**			+	+				*	***		+	***
	ENVIRON	*	**		+	***	***			**	**	***	*				*	*	**		***
	GOVT	**	***	***		*	***			+			**			***	**		**	**	
	RESIDENT	***	**	***	***	+	+	***	***		**	+				***	***		***	**	***
	EMPLOYEE		+	***	***	*				***				**		***		+	+	***	**
	INDUSTRY SP								***								+				
	GOVT LOCAL SP		***														+	+			
	ACTIVIST GROUP SP		*				*									+	*				
	GOVT STATE SP		***						+	*	*		+	*		***			**		
	INDUSTRY ALLY SP	**			*		***			+	+	+	*		*		**				
	EXPERT SP			+			*			***	*		*		***		+				
	EXPERT			***	***	***	***	***		***	***		***		*	**		+	*		*
	ALLIES	**	*	+					***		***	*				***	**	***			
	OPPONENT			***		***				*	***		**	***	***	***		***	***		
	VICTIM			+	***				***				**					***		***	
	VILLAIN		**		+						+		***			**		***	***		
	HERO							***													
	R^2	0.15	0.78	0.24	0.19	0.06	0.09	0.02	0.15	0.22	0.08	0.02	0.10	0.05	0.03	0.55	0.51	0.22	0.14	0.33	0.09

Note: *=p<0.1; *p<0.05; **p<0.01; ***p<0.001*

As a first step in relating the policy actors to NPF characters, sentiment analysis was conducted on character-containing sentences within articles that have a *state fiscal* frame. From this process, each sentence containing a character was associated with a sentiment score. The

resulting distributions with mean and 1st and 3rd quartiles are shown in Figure 5. The boxplots show that in the articles that contain this frame, the *named local government official* has the lowest sentiment ($M_{GOVTLOCALSP}$=0.0450) and *named state government official* ($M_{GOVTSTATESP}$=0.0628) has the highest. Comparatively, the values for the theoretical characters tagged in these articles have a low range suggesting that there is very little polarization in these articles. An interesting finding in this work and Crow and Wolton (2020) is that *allies* have a higher sentiment than *heroes* (M_{HERO}=0.0700< M_{ALLIES}=0.0927). This is a consistent finding in sentiment across all the articles and many other frames as well. Policy actors are not as villainized in the *state fiscal* frame as they are in the whole set of articles as evidenced by the mean sentiment that is closer to zero ($M_{VILLAIN\_ALL}$=-0.0401< $M_{VILLAIN\_FISCAL}$=-0.0172). These findings suggest there is less polarization and overt depiction of *heroes* and *villains* in this local frame.

Figure 5. Sentiment distributions for significant characters



The second step in relating policy actors to NPF characters was hypothesis testing of the significant characters against the NPF characters (Table 8). Welch two-sample, two-sided t-tests were performed between the sentiment distributions of each significant actor and the NPF characters from the *state fiscal* frame. This maps the significant actors in a frame, identified at the sentence level with dictionary tagging, to the closest NPF character. Some actors will not be significantly associated with an NPF character in every frame. The hypothesis testing relies on the rejection of the null hypothesis in the case of testing the true difference in means, meaning that the populations cannot be interpreted as significantly different (on the chart this is marked by a *No*—we cannot reject the null—for significance. Table 8 shows that *named state government*, *government*, and *named local government* actors are most similar to the *hero* sentiment population, with the *named state government* actor having the most significant relationship. In this frame, these government actors are associated with moderately constructed *heroes*, while there are no clear actor associations with other characters.

Table 8. T-test results on significant actors against NPF characters

$\mu_1 - \mu_2$	Mean difference	Std. Error	t-statistic	Pr(>|t|)	Similar sentiment
GOVT STATE SP – HERO	-0.007	0.016	-0.452	0.652	Yes
GOVT – HERO	-0.008	0.016	-0.486	0.629	Yes
GOVT LOCAL SP – HERO	-0.025	0.017	-1.506	0.136	Yes
GOVT LOCAL SP – VICTIM	0.063	0.022	2.847	0.006**	No
GOVT – VICTIM	0.081	0.022	3.716	0.000***	No
GOVT STATE SP – VICTIM	0.081	0.022	3.717	0.000***	No
GOVT LOCAL SP – VILLAIN	0.062	0.014	4.490	0.000***	No
GOVT STATE SP – VILLAIN	0.080	0.013	6.076	0.000***	No
GOVT – VILLAIN	0.080	0.013	6.136	0.000***	No
GOVT STATE SP – EXPERT	-0.025	0.004	-5.880	0.000***	No
GOVT LOCAL SP – EXPERT	-0.043	0.006	-7.091	0.000***	No
GOVT – EXPERT	-0.026	0.004	-7.084	0.000***	No
GOVT STATE SP – ALLIES	-0.036	0.005	-7.684	0.000***	No
GOVT LOCAL SP – ALLIES	-0.054	0.006	-8.459	0.000***	No
GOVT – ALLIES	-0.036	0.004	-8.958	0.000***	No
GOVT LOCAL SP – OPPONENT	-0.051	0.005	-9.346	0.000***	No
GOVT STATE SP – OPPONENT	-0.033	0.003	-9.960	0.000***	No
GOVT – OPPONENT	-0.033	0.002	-14.175	0.000***	No

*Note: =p<0.1; *p<0.05; **p<0.01; ***p<0.001*

The solutions highly related to the *state fiscal* frame include *tax*, *regulation*, and *general solutions* based on regression coefficients (β_{TAX}=1.875, $\beta_{REGULATION}$ = -0.128, $\beta_{GENERAL}$ = -0.059). However, while the positive coefficient for *tax* predicts the co-occurrence of the *state fiscal* frame, both *regulation* and *general* solutions have a relatively strong negative relationship with this frame. This relationship implies that as the occurrence of the *regulation* and *general* solutions decrease and the *tax* solution increases, the likelihood of the frame being *state fiscal* increases. Although the regression coefficient implies positivity about the *tax* solution, the coding method used here is not evaluative of whether the solution is accepted. The support for solutions in the coded sentences can vary:

> *Mr. Rendell's prediction that the tax would bring in $1.7 million in its first year, Mr. Rhoads said, is "dead wrong."* (Eagle, 2009)

> *Oil and gas companies, however, argue that the tax will have the opposite effect, harming Pennsylvanians by destroying the opportunity for thousands of well-paying jobs.* (Eagle, 2009)

> *While state legislators continue to debate the need for a tax on natural gas drilling, proponents of the tax yesterday concerned themselves with where the revenue should go.* (Eagle, 2009)

As previously shown in Figure 4, the *state fiscal* frame is moderately correlated (0.3) with the *political* frame and mildly anti-correlated (-0.09) with the *authority* frame, a result supported by the coefficient findings for *tax* and *regulations*. The *state fiscal* frame was found in 1,937 articles—though not necessarily the dominant frame—indicating that is an important theme in the discussion of shale development in the newspapers evaluated. The high occurrence of this frame category and the high coefficient of determination associated with the use of these actors and solutions suggest a similarity of the frame and the use of actors and solutions across states and over the 10-year period.

Frame: Wastewater Disposal

The OLS regression results also indicate that some issues are associated with a larger number of narrative elements, including NPF characters. The *wastewater disposal* issue, which is highly correlated (0.51) with *induced seismicity* and moderately correlated with *water quality* (0.28) and *water use* (0.19), contains significant relationships with the NPF characters of *villains*, *victims*, and *experts*. Three solutions variables (*information, permit,* and *named regulation*) and actors (*state government*, *experts*, *government*, *government local*, *government federal*, and *villain*) mildly explain the variance of the issue frame at the 99.9% confidence level (R^2_{adj} =0.082, $F(9,5698)=56.514$, $p<0.001$). The strong positive correlation of the wastewater disposal frame to other frames (see Figure 4) suggests that there are various ways of talking about this issue. Comparing this frame to the relatively compact *state fiscal* frame suggests that some frames are associated with greater variability in character use.

Additionally, the regression results show the use of more NPF characters, which indicate more polarization in these narratives. In fact, the NPF *villain* character has the highest coefficient of characters that explain variability ($\beta_{VILLAIN}$=0.227, β_{EXPERT} = 0.163, $\beta_{STATEGOVT}$ = 0.106, $\beta_{FEDGOVT}$=0.064, β_{GOVT} = -0.032, $\beta_{LOCALGOVT}$ = -0.051) at the 99.9% confidence level. The sentiment scores for the characters support the idea of increased narrativity of *wastewater disposal* policy narratives. Sentiment analysis was conducted on character-containing sentences within articles that have a *wastewater disposal* frame. The results are shown in Figure 6. In the articles that contain this frame, the figure shows there is often a relatively negative *villain* compared to the villains in all of the articles ($M_{VILLAIN\_ALL}$= -0.0261 > $M_{VILLAIN\_WWD}$= -0.0485).

Yet, at the 99.9% significance level, *villains* were not associated with the *industry* or *opponent* actor, which is significant to the model at the 95% confidence level. Interestingly, *villains* in these narratives are not highly associated with any particular policy actor. A partial explanation may be that policy actors are reluctant to name *industry*, which is constructed very positively in the dataset ($M_{INDUSTRY\_ALL}$= 0.1020) and has a similar construction to the character *allies* ($M_{INDUSTRY\_ALL}$= 0.1020 ~ M_{ALLIES_ALL}= 0.1083). Examples of segments containing the

villain character show the reluctance for villainization of the industry that is producing the wastewater but often portray the haulers of the waste as deviant individuals:

> *Local officials in the Oil Patch say they know some truck drivers are dumping liquid waste in remote areas to save time and money, but it's rare to be able to pursue criminal charges*. (Dalrymple, 2014)

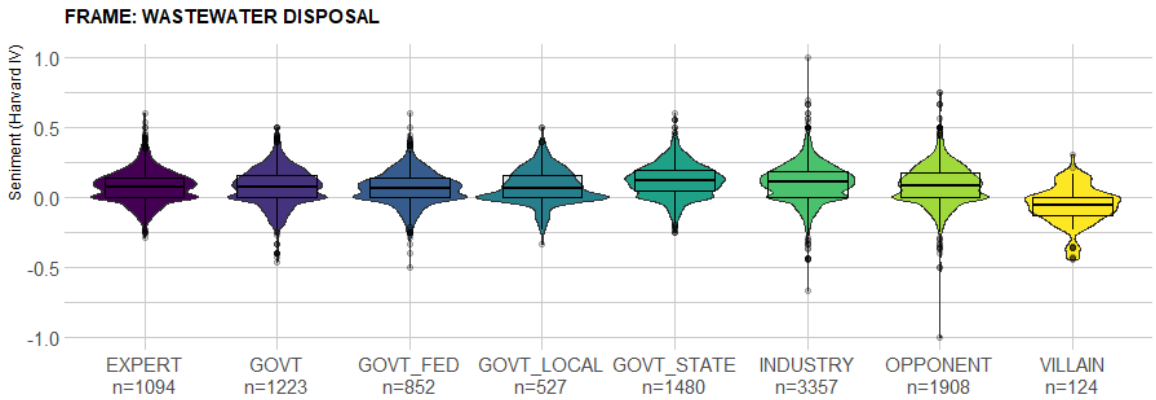
> *Mckenzie County, which has the highest concentration of drilling activity, has not yet had any criminal cases for illegal dumping, yet Samuelson estimates he receives two to three reports a month.* (Dalrymple, 2014)

> *A Western Pennsylvania waste-hauler, Robert Allan Shipman, was convicted of illegally dumping waste in 2012, and sentenced to serve seven years of probation and 1,750 hours of community service, and to pay $382,000 in restitution and fines. The attorney general has appealed the sentence, arguing that Shipman deserved jail time.* (Maykuth, 2013)

> *Nathan Garber of Kalispell, Mont., is accused of ordering the illegal dumping of saltwater waste into a former oil well, putting drinking water in Stark County at risk for contamination. He faces up to five years in prison and a $5,000 fine if convicted of the felony.* (Associated Press, 2012)

Figure 6 shows that of the most positively constructed character group in this frame is *state government* actors, which are constructed most closely with *allies* (M_{ALLIES}=0.1027< $M_{STATEGOVT}$=0.1197). Again, *allies* have a higher sentiment than *heroes* (M_{HERO}=0.0976< M_{ALLIES}=0.1027).

Figure 6. Significant policy actors and NPF characters in the wastewater disposal frame



Among the articles using this frame, there were few references to *victim* (n=10) or *hero* (n=22), which prevented hypothesis testing, though *victims* were significantly related to this frame in the regression at the 99% confidence level (i.e., when it is used, this is one of the frames it is

highly associated with). The results in Table 6 showed that *local government* and *government* are most associated with *experts* and that *state government* and *industry* are most associated with *allies*.

The solutions presented in this frame of highest significance (99.9% confidence level) are *named regulations, permit,* and *information.* Based on an evaluation of the regression coefficients ($\beta_{NAMEDREGULATION}$ = 0.243, β_{PERMIT} = 0.104, $\beta_{INFORMATION}$ = -0.129), *named regulation* is the solution co-occurring most often. When investigated, these were found to be environmentally-related laws (e.g., *Clean Streams Law, Ground Water Protection Act, Clean Water Act*). While the positive coefficients for *named regulation* and *permit* show the prediction of the co-occurrence of the *wastewater disposal* frame, *information* solutions have a relatively strong negative relationship with this frame. Because it is negative, the regression coefficient implies that as the occurrence of *information* solutions increase, the likelihood of the frame being *wastewater disposal* decreases. Negative coefficients can occur in the regression results because the regression was done across all frames, characters, and solutions.

Table 9. T-test results on significant actors against NPF characters

μ_1-μ_2	Mean difference	Std. Error	t-stat	Pr(>|t|)	Similar sentiment
GOVT LOCAL – EXPERT	-0.001	0.006	-0.198	0.843	Yes
GOVT – EXPERT	-0.002	0.005	-0.479	0.632	Yes
GOVT STATE – ALLIES	0.006	0.008	0.740	0.460	Yes
INDUSTRY – ALLIES	-0.006	0.008	-0.745	0.457	Yes
GOVT LOCAL – OPPONENT	-0.013	0.006	-2.121	0.034*	No
GOVT FED – EXPERT	-0.012	0.005	-2.178	0.030*	No
GOVT – OPPONENT	-0.014	0.005	-2.868	0.004**	No
GOVT LOCAL – ALLIES	-0.036	0.009	-3.812	0.000***	No
GOVT – ALLIES	-0.037	0.009	-4.266	0.000***	No
INDUSTRY – OPPONENT	0.017	0.004	4.302	0.000***	No
GOVT FED – OPPONENT	-0.024	0.005	-4.524	0.000***	No
GOVT FED – ALLIES	-0.047	0.009	-5.250	0.000***	No
GOVT STATE – OPPONENT	0.029	0.004	6.583	0.000***	No
INDUSTRY – EXPERT	0.029	0.004	6.845	0.000***	No
GOVT FED – VILLAIN	0.126	0.013	9.390	0.000***	No
GOVT STATE – EXPERT	0.041	0.005	8.775	0.000***	No
GOVT LOCAL – EXPERT	0.136	0.014	9.888	0.000***	No
GOVT – VILLAIN	0.135	0.013	10.156	0.000***	No
INDUSTRY – VILLAIN	0.166	0.013	12.850	0.000***	No
GOVT STATE – VILLAIN	0.179	0.013	13.631	0.000***	No

Note: +p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Villains in the wastewater disposal issue frame have lower than average negative sentiment and *state government* are *allies* with greater than average positive sentiment, suggesting this is a contentious issue. Interestingly, *named regulations* are frequently associated with this topic, while *information* is a solution rarely posed. Likely, when policy actors are characterized as *villains*, we don't imagine that the soft policy tool of *information* would make an impact in the situation. Here,

state government is seen as an ally in the fight against dumping using existing laws and regulations to solve the problem.

DISCUSSION

One of the main objectives of this chapter has been to investigate the relationship between frames, characters, and solutions. Our results show significant relationships between frames and those narrative elements, confirming some definitional assumptions about frames that had not, up to this point, been investigated. Here we have found aspects of Entman's (1993) definition of frames to hold empirical validity: frames narrow our lens by promoting particular presentations of reality as well as treatment recommendations. Our findings suggest that not only are policy actors often closely tied to frames, but they are also accompanied by specific policy solutions. These findings have implications for advancing our understanding of the structure that frames can impose on a narrative, including elements such as characters and solutions.

While we only investigated a small portion of the characters, solutions, and frames in the hydraulic fracturing analysis, the application of this method provided us with findings about the narratives of the issue in the six state and six local newspapers as well as policy narratives in general. The *state fiscal* frame has a very high predictability of characters and solutions, but has a very low range of sentiment, marking it as a consistently used, yet uncontentious issue frame of hydraulic fracturing. These findings suggest that frames can carry consistent elements regardless of their level of NPF characterization. More contentious issue frames, like *wastewater disposal*, involve an increased number of NPF characterizations that are constructed with a wider range of sentiment than others. Importantly to the advancement of the NPF, this method provides a quantitative measure of the relative level of good or bad associated with a character. The relative level of characterization clues the researcher into the aspects of issues that are the thorniest and can potentially highlight the solutions that may be acceptable to the public.

We have demonstrated that NPF research will benefit from including frames in a standard analysis because they allow for advances in understanding narrative structure and when characters are expected to be associated with particular solutions. Research on large datasets of policy narratives could increase our understanding of other factors that likely impact characters and solutions, such as urgency or proximity of the problem. The use of sentiment analysis in conjunction with inductive methods may also lead us to insights on devil-shift or angel-shift patterns. NPF research could use the relationship between frames and policy design we have demonstrated here to address scope of conflict strategies in an automated fashion as well, particularly since we found that policy actors are associated with certain designs that hold relatively fixed cost/benefit distributions.

Gaining a deeper understanding of how frames bound the presence of characters and solutions in narratives will contribute to a stronger tie between the framing and NPF literature. With our initial findings pointing to a relationship between frame and narrative elements such as characters and solutions, we recognize the potential for some shared properties of NPF plots and frames. For instance, frames may act in similar ways to an NPF plot, "situat[ing] the characters and their relationship in time and space" (Shanahan et al., 2017, p. 175). More deeply

understanding the overlap between plots and frames may provide routes to increased consistency in the coding of plots, which has historically been challenging.

As researchers consider using semi-automated methods, they must also consider the tradeoffs. Automated textual analysis, even with the use of iteratively refined dictionaries, may not detect some nuances of language. In some cases, researchers may consider this an acceptable compromise with the increased generalizability of the findings from having a larger dataset and the gains in reliability from automation. Additionally, while these methods appear to be faster because they are automated, they take a similarly deep consideration of research design as do hand-coding studies. Significant time must be invested in conceptualizing, populating, checking the validity of, and refining dictionaries for this process. And if one is a novice programmer, time must be spent in understanding terminology, data structures, and available software.

The narrative research in this study was only a first step towards understanding automated tools that may increase the ability to address larger datasets systematically. Our research has limitations that could be addressed in future research. For instance, while context around characters is important, is a whole sentence a good predictor of emotional response about one paragraph? Perhaps it is only in certain parts of speech in that sentence, as suggested by Shanahan et al. (2018), or can it be contained in one evaluative word? We also make assumptions in our theoretical definitions that could be refined by future research. For instance, although we did use some entities as policy actors, such as *industry* and *levels of government,* we did not include non-human characters and abstract principles as entities. For example, although we did not treat it as such, *the environment* could be constructed as a victim or *greenhouse gas emissions* could be a villain in a frame about climate change.

The results from this research have implications for the way that policy narrative researchers do business. While this chapter only discusses several of the frames, policy actors/characters, and solutions, it should be clear that these methods add autocoding and computer-assisted tools to the policy narrative researcher's toolkit. Additionally, advances in computation linguistics research suggest there are more automated tools to come. For instance, Jacobs (2019) shows the potential for vector space models aided by sentiment analysis to predict the emotional potential of fictional characters—a method that could aid NPF researchers, particularly in the realm of character identification with large volumes of text. While there are limitations to automated methods, we have shown that an iterative context-considered approach can open up the potential for addressing larger, more complex datasets with relatively high levels of confidence. The iterative, inductive approach we have presented also means that researchers hold greater levels of understanding of their own methods and results.

REFERENCES

Adgate, John L., Bernard D. Goldstein, and Lisa M. McKenzie. 2014. "Potential Public Health Hazards, Exposures and Health Effects from Unconventional Natural Gas Development." *Environmental Science & Technology* 48 (15): 8307-8320. https://doi.org/10.1021/es404621d. https://doi.org/10.1021/es404621d.

Arvenson, Amelia. 2017. "David Paul Pleads not Guilty in Case of Beaming Light onto Boulder Courthouse." *Longmont Times Call*, December 11, 2017. https://www.timescall.com/2017/12/11/david-paul-pleads-not-guilty-in-case-of-beaming-light-onto-boulder-courthouse/.

Associated Press. 2012. "Mont. Oil Executive Pleads not Guilty to Crime in N.D." *Bismarck Tribune*, November 28, 2012.

Bamberger, Michelle and Robert E. Oswald. 2015. "Long-term Impacts of Unconventional Drilling Operations on Human and Animal Health." *Journal of Environmental Science and Health, Part A* 50 (5): 447-459. https://doi.org/10.1080/10934529.2015.992655.

Berardo, Ramiro, Federico Holm, Tanya Heikkila, Christopher M. Weible, Hongtao Yi, Jennifer Kagan, Catherine Chen, and Jill Yordy. 2020. "Hydraulic Fracturing and Political Conflict: News Media Coverage of Topics and Themes across Nine States." *Energy Research & Social Science* 70: 101660. https://doi.org/10.1016/j.erss.2020.101660.

Blair, Benjamin, Tanya Heikkila, and Christopher M. Weible. 2016. "National Media Coverage of Hydraulic Fracturing in the United States: Evaluation Using Human and Automated Coding Techniques: Hydraulic Fracturing Media Coverage." *Risk, Hazards & Crisis in Public Policy* 7 (3): 114-128. https://doi.org/10.1002/rhc3.12097.

Chong, Dennis and James N. Druckman. 2007. "Framing Theory." *Annual Review of Political Science* 10 (1): 103-126. https://doi.org/10.1146/annurev.polisci.10.072805.103054.

Crow, Deserai A., Lydia A. Lawhon, John Berggren, Juhi Huda, Elizabeth Koebele, and Adrianne Kroepsch. 2017. "A Narrative Policy Framework Analysis of Wildfire Policy Discussions in Two Colorado Communities." *Politics & Policy* 45 (4): 626-656. https://doi.org/10.1111/polp.12207.

Crow, Deserai A., and Andrea Lawlor. 2016. "Media in the Policy Process: Using Framing and Narratives to Understand Policy Influences." *Review of Policy Research* 33 (5): 472-491. https://doi.org/10.1111/ropr.12187.

Crow, Deserai A. and Laura Wolton. 2020. "Talking Policy in Congressional Campaigns: Construction of Policy Narratives in Electoral Politics." *Politics & Policy* 48 (4): 658-699. https://doi.org/10.1111/polp.12369.

Dalrymple, Amy. 2014. "Truckers Dumping Illegal Waste Rarely Caught." *Grand Forks Herald*, February 6, 2014.

Eagle, Jess. 2009. "Supporters of Gas Drilling Tax Suggest How it Should be Spent." *Pittsburgh Post Gazette*, June 13, 2009.

Entman, Robert M. 1993. "Framing: Toward Clarification of a Fractured Paradigm." *Journal of Communication* 43 (4): 51-58. https://doi.org/10.1111/j.1460-2466.1993.tb01304.x.

Gallegos, Tanya J., Brian A. Varela, Seth S. Haines, and Mark A. Engle. 2015. "Hydraulic Fracturing Water Use Variability in the United States and Potential Environmental Implications." *Water Resources Research* 51 (7): 5839-5845. https://doi.org/10.1002/2015WR017278.

Hand, Eric. 2015. "Oil and Gas Operations Could Trigger Large Earthquakes." *Science*, April 23, 2015. https://www.sciencemag.org/news/2015/04/oil-and-gas-operations-could-trigger-large-earthquakes.

Heikkila, Tanya, and Christopher M. Weible. 2017. "Unpacking the Intensity of Policy Conflict: a Study of Colorado's Oil and Gas Subsystem." *Policy Sciences* 50 (2): 179. https://doi.org/10.1007/s11077-017-9285-1.

Humphreys, Ashlee, and Rebecca Jen-Hui Wang. 2017. "Automated Text Analysis for Consumer Research." *Journal of Consumer Research* 44 (6): 1274-1306. https://doi.org/10.1093/jcr/ucx104.

Jacobi, Carina, Wouter van Atteveldt, and Kasper Welbers. 2015. "Quantitative Analysis of Large Amounts of Journalistic Texts Using Topic Modelling." *Digital Journalism* 4 (1): 89-106. https://doi.org/10.1080/21670811.2015.1093271.

Jacobs, Arthur M. 2019. "Sentiment Analysis for Words and Fiction Characters From the Perspective of Computational (Neuro-)Poetics." *Frontiers in Robotics and AI* 6 (53). https://doi.org/10.3389/frobt.2019.00053.

Jones, Michael D. 2013. "Cultural Characters and Climate Change: How Heroes Shape Our Perception of Climate Science." *Social Science Quarterly* 95 (1): 1-39.

Jones, Michael D. and Mark K. McBeth. 2010. "A Narrative Policy Framework: Clear Enough to Be Wrong?" *Policy Studies Journal* 38 (2): 329.

Jones, Michael D., Elizabeth A. Shanahan, and Mark K. McBeth. 2014. *The Science of Stories: Applications of the Narrative Policy Framework in Public Policy Analysis.* London: Palgrave MacMillan.

Jones, Michael D. and Geoboo Song. 2014. "Making Sense of Climate Change: How Story Frames Shape Cognition." *Political Psychology* 35 (4): 447-476. https://doi.org/10.1111/pops.12057.

Joyce, Stephanie and Jordan Wirfs-Brock. "The Rising Cost of Cleaning Up After Oil and Gas." *Inside Energy*, October 1, 2015.

Konkel, Lindsey. 2016. "Salting the Earth: The Environmental Impact of Oil and Gas Wastewater Spills." *Environmental Health Perspectives* 124 (12): A230-A235. https://doi.org/doi:10.1289/ehp.124-A230.

Krippendorff, Klaus. 2004. *Content Analysis: An Introduction to its Methodology*. Thousand Oaks, Calif: Sage.

Lawlor, Andrea. 2015. "Framing Immigration in the Canadian and British News Media." *Canadian Journal of Political Science* 48 (2): 329. https://doi.org/10.1017/S0008423915000499.

Lawlor, Andrea and Deserai A. Crow. 2018. "Risk-Based Policy Narratives." *Policy Studies Journal* 46 (4): 843-867. https://doi.org/843-867.

Lawton, Ricky N. and Murray A. Rudd. 2014. "A Narrative Policy Approach to Environmental Conservation." *Ambio* 43 (7): 849-857. https://doi.org/10.1007/s13280-014-0497-8.

Mason, Krystal L., Kyla D. Retzer, Ryan Hill, and Jennifer M. Lincoln. 2015. "Occupational Fatalities During the Oil and Gas Boom -- United States, 2003 - 2013." *Morbidity and Mortality Weekly Report (MMWR)* 64 (20): 551-554.

Maykuth, Andrew. 2013. "Shale Criminal Charges Stun Drilling Industry." *Philadelphia Inquirer*, September 12, 2013.

McGinnis, Michael D. and Elinor Ostrom. 2014. "Social-ecological System Framework: Initial Changes and Continuing Challenges." *Ecology and Society* 19 (2): 30. https://doi.org/10.5751/es-06387-190230.

Merry, Melissa. 2016. "Making Friends and Enemies on Social Media: The Case of Gun Policy Organizations." *Online Information Review* 40 (5): 624-642. https://doi.org/10.1108/OIR-10-2015-0333.

Merry, Melissa K. 2018. "Narrative Strategies in the Gun Policy Debate: Exploring Proximity and Social Construction." *Policy Studies Journal* 46 (4): 747-770. https://doi.org/10.1111/psj.12255.

Miles, Matthew B., A. Michael Huberman, and Johnny Saldaña. 2020. *Qualitative Data Analysis: A Methods Sourcebook*. Thousand Oaks: Sage Publications, Inc.

Moskowitz, Peter. 2015. "New Report Estimates Enough Natural Gas is Leaking to Negate Climate Benefits." *The Guardian*, June 24, 2015. http://www.theguardian.com/environment/2015/jun/24/natural-gas-leaks-methane-environment.

Olofsson, Kristin L., Christopher M. Weible, Tanya Heikkila, and J. C. Martel. 2018. "Using Nonprofit Narratives and News Media Framing to Depict Air Pollution in Delhi, India." *Environmental Communication* 12 (7): 956-972. https://doi.org/10.1080/17524032.2017.1309442.

Poirier, William, Catherine Ouellet, Marc-Antoine Rancourt, Justine Béchard, and Yannick Dufresne. 2020. "(Un)Covering the COVID-19 Pandemic: Framing Analysis of the Crisis

in Canada." *Canadian Journal of Political Science* 53 (2): 365-371. https://doi.org/10.1017/S0008423920000372.

Ratner, Bruce. 2009. "The Correlation Coefficient: Its Values Range Between +1/−1, or Do They?" *Journal of Targeting, Measurement and Analysis for Marketing* 17 (2): 139-142. https://doi.org/10.1057/jt.2009.5.

Scheufele, Dietram A. and Shanto Iyengar. 2014. "The State of Framing Research: A Call for New Directions." In *The Oxford Handbook of Political Communication*, edited by Kate Kenski and Kathleen Hall Jamieson. New York: Oxford University Press.

Schäfer, Mike S. and Saffron O'Neill. 2017. "Frame Analysis in Climate Change Communication: Approaches for Assessing Journalists' Minds, Online Communication and Media Portrayals." In *Oxford Encyclopedia of Climate Change Communication*, edited by Matthew Nisbet, Shirley Ho, Ezra Markowitz, Saffron O'Neill, Mike S. Schäfer and Jagadish Thaker. New York: Oxford University Press.

Scott, Tyler A., Nicola Ulibarri, and Ryan P. Scott. 2020. "Stakeholder Involvement in Collaborative Regulatory Processes: Using Automated Coding to Track Attendance and Actions." *Regulation & Governance* 14 (2): 219-237. https://doi.org/10.1111/rego.12199.

Shanahan, Elizabeth A., Michael D. Jones, and Mark K. McBeth. 2018. "How to Conduct a Narrative Policy Framework Study." *The Social Science Journal* 55 (3): 332-345. https://doi.org/10.1016/j.soscij.2017.12.002.

Shanahan, Elizabeth A., Michael D. Jones, Mark K. McBeth, and Claudio M. Radaelli. 2017. "The Narrative Policy Framework." In *Theories of the Policy Process*, edited by Christopher M. Weible and Paul A. Sabatier. Boulder, CO: Westview.

Stone, Philip J., Robert F. Bales, J. Zvi Namenwirth, and Daniel M. Ogilvie. 1962. "The General Inquirer: A Computer System for Content Analysis and Retrieval Based on the Sentence as a Unit of Information." *Behavioral Science* 7 (4): 484.

Stone, Phillip. 2018. "Descriptions of Inquirer Categories and Use of Inquirer Dictionaries." Accessed December 8, 2018. http://www.wjh.harvard.edu/~inquirer/homecat.htm.

U.S. Energy Information Administration. 2018. "How Much Shale Gas is Produced in the United States?" Accessed April 10, 2018. https://www.eia.gov/tools/faqs/faq.php?id=907&t=8.

Wines, Michael. 2013. "Gas Drilling Not Imminent, but Debate Roils N.Y. Region." *Pittsburgh Post-Gazette*, January 13, 2013.

Witze, Alexandra. 2015. "Artificial Quakes Shake Oklahoma: Earthquakes Linked to Oil and Gas Operations Prompt Further Research into Human-induced Seismic Hazards." *Nature* 520 (7548): 418.

Yu, Jingyuan, Yanqin Lu, and Juan Muñoz-Justicia. 2020. "Analyzing Spanish News Frames on Twitter during COVID-19—A Network Study of El País and El Mundo." *International*

Journal of Environmental Research and Public Health 17 (15): 5414. https://doi.org/10.3390/ijerph17155414.

CHAPTER APPENDIXES

Appendix A. Included news sources and article counts

Newspaper Name	Publishing City	State	Pre-exclusion Count	Source	Article count post-exclusion
Houston Chronicle	Houston	TX	2935	Newsbank	592
Dallas Morning News	Dallas	TX	1543	Newsbank	441
Pittsburgh Post-Gazette	Pittsburgh	PA	3992		1170
Philadelphia Inquirer	Philadelphia	PA	2397	Newsbank	691
Oklahoman	Oklahoma City	OK	2909		393
Tulsa World	Tulsa	OK	1868		187
The Advocate	Baton Rouge	LA	663	Newsbank	233
Times-Picayune	New Orleans	LA	682	Newsbank	170
Grand Forks Herald	Grand Forks	ND	1003	Newsbank	360
Bismarck Tribune	Bismarck	ND	2425	Newsbank	580
Denver Post	Denver	CO	1595	Newsbank	567
Daily Times-Call	Longmont	CO	1466	Newsbank	315
				Total Count	**5708**

Appendix B. Regression of significant characters and solutions at 99.9% confidence

	Dependent variable:
	STATE_FISCAL
GENERAL	0.079***
	(0.013)
REGULATION	-0.124***
	(0.015)
TAX	1.868***
	(0.016)
GOVT_LOCAL_SP	0.220***
	(0.037)
ACTIVIST_GROUP	-0.296***
	(0.063)
GOVT	0.156***
	(0.011)
GOVT_LOCAL	-0.065***
	(0.017)
GOVT_STATE_SP	0.098***
	(0.020)
Constant	0.220***
	(0.045)
Observations	5,704
R^2	0.778
Adjusted R^2	0.778
Residual Std. Error	2.319 (df = 5695)
F Statistic	2,492.394*** (df = 8; 5695)
Note:	+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

	Dependent variable:
	WASTEWATER_DISPOSAL
SOL_INFORMATION	-0.127***
	(0.036)
SOL_PERMIT	0.103***
	(0.017)
SOL_REGULATION_SP	0.248***
	(0.051)
GOVT_STATE	0.106***
	(0.010)
EXPERT	0.163***
	(0.012)
GOVT	-0.032***
	(0.007)
GOVT_LOCAL	-0.051***
	(0.011)
GOVT_FED	0.064***
	(0.011)
VILLAIN	0.227***
	(0.046)
Constant	0.135***
	(0.031)
Observations	5,708
R^2	0.082
Adjusted R^2	0.080
Residual Std. Error	1.619 (df = 5698)
F Statistic	56.514*** (df = 9; 5698)
Note:	+ p<0.1; * p<0.05; ** p<0.01; *** p<0.001

Appendix C. Accepted interpretation of correlation coefficient

Correlation Coefficient Range	Relationship Interpretation (e.g., Ratner 2009)
0	no linear relationship
0 to 0.3 or 0 to -0.3	weak positive or negative relationship
0.3 to 0.7 or -0.3 to -0.7	moderate positive or negative relationship
0.7 to 1.0 or -0.7 to -1.0	strong positive or negative linear relationship
+1 or -1	perfect positive or negative relationship

Appendix D. Character dictionary

Category	Search item	Whole word	Case sensitivity	Starting letters
CHAR_ALLIES	advocacy group	0	0	0
CHAR_ALLIES	advocate	0	0	0
CHAR_ALLIES	backer	0	0	0
CHAR_ALLIES	campaigner	0	0	0
CHAR_ALLIES	champion	0	0	0
CHAR_ALLIES	counsel	0	0	0
CHAR_ALLIES	defender	0	0	0
CHAR_ALLIES	enthusiast	0	0	0
CHAR_ALLIES	friend	0	0	0
CHAR_ALLIES	guardian	0	0	0
CHAR_ALLIES	leader	0	0	0
CHAR_ALLIES	promoter	0	0	0
CHAR_ALLIES	proponent	0	0	0
CHAR_ALLIES	protector	0	0	0
CHAR_ALLIES	spokesperson	0	0	0
CHAR_ALLIES	supporter	0	0	0
CHAR_EXPERT	analyst	0	0	0
CHAR_EXPERT	chemist	0	0	0
CHAR_EXPERT	economist	0	0	0
CHAR_EXPERT	educator	0	0	0
CHAR_EXPERT	examiner	0	0	0
CHAR_EXPERT	expert	0	0	0
CHAR_EXPERT	geologist	1	0	0
CHAR_EXPERT	industry analyst	1	1	0
CHAR_EXPERT	inspector	0	0	0
CHAR_EXPERT	panelist	0	0	0
CHAR_EXPERT	physicist	0	0	0

CHAR_EXPERT	professor	0	0	0
CHAR_EXPERT	researcher	0	0	0
CHAR_EXPERT	scholar	0	0	0
CHAR_EXPERT	scientist	0	0	0
CHAR_EXPERT	seismologist	0	0	0
CHAR_EXPERT	specialist	0	0	0
CHAR_EXPERT	technician	0	0	0
CHAR_HERO	celebrity	0	0	0
CHAR_HERO	hero	0	0	0
CHAR_HERO	protagonist	0	0	0
CHAR_HERO	superstar	0	0	0
CHAR_HERO	winner	0	0	0
CHAR_OPPONENT	activist	0	0	0
CHAR_OPPONENT	adversary	0	0	0
CHAR_OPPONENT	agitator	0	0	0
CHAR_OPPONENT	antagonist	0	0	0
CHAR_OPPONENT	candidate	0	0	0
CHAR_OPPONENT	challenger	0	0	0
CHAR_OPPONENT	competitor	0	0	0
CHAR_OPPONENT	demonstrator	0	0	0
CHAR_OPPONENT	enem	0	0	1
CHAR_OPPONENT	foe	0	0	0
CHAR_OPPONENT	heckler	0	0	0
CHAR_OPPONENT	litigant	0	0	0
CHAR_OPPONENT	opponent	0	0	0
CHAR_OPPONENT	opposition	0	0	0
CHAR_OPPONENT	protester	0	0	0
CHAR_OPPONENT	radical	0	0	0
CHAR_OPPONENT	rival	0	0	0

CHAR_VICTIM	casualt	0	0	1
CHAR_VICTIM	fatalit	0	0	1
CHAR_VICTIM	injured part	0	0	1
CHAR_VICTIM	victim	0	0	0
CHAR_VILLAIN	convict	0	0	0
CHAR_VILLAIN	criminal	0	0	1
CHAR_VILLAIN	crook	0	0	0
CHAR_VILLAIN	delinquent	0	0	0
CHAR_VILLAIN	deviants	0	0	0
CHAR_VILLAIN	felon	1	0	0
CHAR_VILLAIN	guerrilla	0	0	0
CHAR_VILLAIN	guilty party	0	0	0
CHAR_VILLAIN	lawbreaker	0	0	0
CHAR_VILLAIN	perpetrator	0	0	1
CHAR_VILLAIN	rebel	0	0	0
CHAR_VILLAIN	suspect	0	0	0
CHAR_VILLAIN	terrorist	0	0	0
CHAR_VILLAIN	thug	0	0	0
CHAR_VILLAIN	villain	0	0	1

Appendix E. Autocoding example in R

The following lines of code are for use on a dataframe that contains source data and clean text.

The way this code is designed is that each row of the dataframe input text is segmented into the desired unit for the analysis. The following chunk of code breaks the text from a dataframe into sentences (the unit of analysis for this study). Here, we use the *unnest_sentences* function to change each whole block of text into a larger dataframe with the number of rows equal to the number of sentences in all the text. For example, if 100 news articles were originally read into a dataframe (*text_df*), the dimensions would be the column of text (*text_df$text*) plus columns for metadata (6 information columns shown below) by 100 (a row for each of the 100 articles). The dimension of the post-unnesting dataframe (*text_sen*) will be the number of sentences in all the documents.

```
library(lexRankr)
#text_df=dataframe with each cell in the "text" column contains the text
#from a whole document
dim(text_df)
#[1] 100   7
colnames(text_df)
#[1] "title"    "paper"    "date"     "section"  "byline"   "text"     "highlight"

#the column title contains each document name
#sents in the function call is a dataframe column that will be created containing the sentences
text_sen<-unnest_sentences(text_df,sents,text,doc_id=title)

#the number of rows in the new dataframe will equal the number of sentences
#in all the text documents
dim(text_sen)
#11220     8
colnames(text_sen)

#[1] "title"    "paper"    "date"     "section"  "byline"   "highlight" [7] "sent_id"  "sents"
```

For the dictionary to find all occurrences, the text must be cleaned. Remove all punctuation and multiple spaces.

```
#remove a little punctuation so the dictionary can find all occurrences
#this will create a new column of clean text in your dataframe (clntxt)
library(mgsub)
text_sen$clntxt<-mgsub(text_sen$sents, c("[[:punct:]]","\r\n"), c("","  "))
text_sen$clntxt<-mgsub(text_sen$clntxt,"\\s+"," ")
```

Read in the dictionary designed similarly to the one shown in Figure 1. Then change the values in the columns of switches to be *grep* keyword friendly.

```
library(readxl)
#read in frame dictionary
#this example is from a spreadsheet
#read in as a tibble or dataframe for compatibility with the following code
dict<-read_xlsx('C:/Users/vegan/Dropbox/Campaign Book Project/Dictionaries/pol_ref_dict.xlsx',col_names=TRUE,col_types=NULL)

#rename cols
colnames(dict)[c(1:5)]<-c("Category","word","ww","cs","sl")

#make the columns friendly the grep search
#have to swap 0 to 1 and 1 to 0
#this is for the ignore.case keyword in grep
dict$cs<-replace(dict$cs,dict$cs==1,"FALSE")
dict$cs<-replace(dict$cs,dict$cs==0,"TRUE")
```

```
#this is for the starting letter
ind<-which(dict$sl==1)
#add a single space to the beginning of the word
dict$word[ind]<-paste("",dict$word[ind])
#remove any multiple spaces
dict$word<-mgsub(dict$word,"\\s+"," ")

#if the word is the whole word add a space
#on the front and back of the word
ind=which(dict$ww==1)
dict$word[ind]<-paste("",dict$word[ind],"")
```

Create a new empty dataframe for the coded segments. The dimensions of the new dataframe will contain two additional columns for category and search term.

```
####create an empty dataframe to save the coded segments
#you'll want to have enough columns to contain
#the original data info (e.g., title of article, source, date)
#plus columns that are needed for the category, search word
#ncol should be the number of columns in text_sen dataframe+2
coded_segs<-data.frame(matrix(ncol=10,nrow=0))

################
for (wind in 1:length(dict$word)){
  #look for the word in tweets, tag it
  ind<-grep(dict$word[wind],text_sen$clntxt,value=FALSE,ignore.case=dict$cs[wind])
  #add to the output dataframe
  coded_segs<-rbind(coded_segs,cbind(text_sen[ind,c("date","paper","title","section","byline","sents","s
ent_id")],cbind(cbind(rep(dict$Category[wind],length(ind)),rep(dict$word[wind],length(ind))),text_sen
$clntxt[ind]))
}
colnames(coded_segs)<-c(colnames(text_sen)[c(1:6)],"Code","SearchWord","clntxt")
coded_segs$clntxt<-as.character(coded_segs$clntxt)
```

The resulting dataframe of coded segments will contain a row for every tag. This dataframe can then be used for various analysis purposes.

CHAPTER 4: AGREEMENT AND TRUST: IN NARRATIVES OR NARRATORS?

Donna L. Lybecker*, Idaho State University
Mark K. McBeth, Idaho State University
Jessica M. Sargent, Idaho State University

ABSTRACT

Narratives concerning the working class and their relationship to climate change are important. In particular, how the narrative constructs the relationship and, within this, who communicates a narrative (the narrator) is key. That said, this is a less studied element; the Narrative Policy Framework (NPF) has limited research on narrators. Subsequently, this work examines individuals' support of narratives and narrators using an Amazon Mechanical Turk (MTurk) survey of 435 participants. After pretesting for climate change views, the subjects chose which narrator they expected to agree with: Mechanic Pat or Organic Farmer Chris. Through randomization, subjects joined either a congruent treatment group (Mechanic Pat tells the anti-climate change narrative and Organic Farmer Chris tells the pro-climate change narrative) or an incongruent treatment group (Mechanic Pat tells the pro-climate change narrative and Organic Farmer Pat tells the anti-climate change narrative). Results indicate that before reading the narratives, climate change "devotees" (those who agree that climate change is occurring and is human-caused) thought they would agree with Organic Farmer Chris over Mechanic Pat. Whereas there was division in the climate change "skeptics" (those who disagree that climate change is real and human-caused) on the question of what narrator they thought they would agree with. Devotees significantly supported the pro-climate change working-class narrative when told by Organic Farmer Chris as compared to when Mechanic Pat told the same narrative. Further showing the power of a narrator, devotees supported the anti-working class climate change narrative more when told by Organic Farmer Chris rather than when Mechanic Pat told the same narrative. Our findings demonstrate that narrators matter and suggest that the NPF needs to consider narrators as a narrative element worthy of further study.

Corresponding author contact information: donnalybecker@isu.edu

To cite the chapter: Lybecker, Donna L., Mark K. McBeth, and Jessica M. Sargent. 2022. "Agreement and Trust: In Narratives or Narrators?", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework,* Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 91-115. doi.org/10.15788/npf4

INTRODUCTION

Support for climate change policy is building in our current world, where paralyzing political polarization is on the rise and democracy appears in decline. Worldwide, authoritarian populist agendas are succeeding and, for the past 15 years, freedoms throughout the world have declined (Freedom House, 2019, 2021). In the United States, political institutions ranging from the US Congress and Executive Branch, to the media are under attack or polarized by partisanship (Andris et al., 2015). While some contend a political middle still exists in the US population (Fiorina et al., 2010; Harrison, 2020), other data show that polarization is increasing at the individual level and political moderates are disappearing (Abramowitz, 2010; Chinni et al., 2019). Furthermore, evidence shows that individuals increasingly choose to live in communities with people who share their political views (Pew Research Center, 2014; Badger et al., 2021), see those with opposite political views as a "threat to the nation's well-being" (Pew Research Center, 2014), and don't want their children marry someone with opposing political views (Vavreck, 2017; Luscombe, 2020).

It is within this contentious milieu that efforts to garner wider public support for climate change policy must proceed. We are particularly interested in working-class views of climate change and climate change policy**.** Research shows that the impacts of climate change will disproportionately affect the working class (Islam & Winkel, 2017). Thus, understanding their perspective is vital. Scholars have found that former President Trump used fear of climate change legislation to solidify part of his working-class base. In particular, former President Trump shaped his narrative toward coal miners and in support of carbon (Meyer 2019). This, added to the fact that it is the more educated individuals who see climate change as a threat (Ballew et al., 2020; Fagan & Huang, 2019), and since the working class is less likely to hold a college degree than the middle or upper classes, this further points to the need to understand the view of the working class. In the coming years, pro-climate change groups will have to court the working class to their side. As such, we contend that understanding climate change narratives that target different groups within the working class along with who tells the story (the narrator) is crucial.

Individuals' policy support (or lack thereof) stems in part from the narratives heard and narrators telling the story (e.g., Knackmuhs et al., 2019). When studying an issue such as climate change, undoubtedly a policy issue that will dominate the next 50 years of study among policy process theorists, it is key to examine the role of narrative and narrators. One way to achieve this is to utilize the Narrative Policy Framework (NPF), an empirical and systematic approach to examining the role of narratives in the public policy process (Shanahan et al., 2018). The NPF, which is increasingly concerned about the scientific study of narrative and the role of narrative in democracy (Jones & McBeth, 2020; McBeth & Lybecker, 2018), can identify narrative polarization.

The policy narrative has become a frequently studied concept where policy often reflects competition between contending narratives (Knüpfer 2018; Foroughi et al., 2019). Previous studies show that we too often view narratives as full of emotion, bias, and belief. In this manner, narrative contrasts with scientific, rational, and evidence-based statements. For example, a climate change narrative could assert, "human caused climate change is a hoax perpetuated by liberal groups who want to end capitalism in favor of a top down and planned economy." This narrative's approach starkly contrasts with the evidence-based fact that 97% of scientists agree that climate change is both real and human-caused (Cook et al., 2016). The reality, however, is that even this latter proclamation frequently takes the form of a narrative with heroes (perhaps scientists), villains (perhaps powerful politicians who deny climate change), and victims (those ultimately harmed by

denying climate change). Thus, the counter to the story of climate change denial often goes something like this: "Conservatives are intentionally misrepresenting the work of scientists around climate change in order to protect big businesses and this is harming current and future generations." This style of communication clearly sets up competing narratives. Even those who use scientific facts are going to rely on narrative for their understanding. Most individuals are not able to scientifically describe and explain climate change and thus, they instead rely on narratives (with science sometimes being part of the narrative). Even scientists might use (Dahlstrom, 2014) and do use (Padian, 2018) political narratives when articulating science. Political leaders are typically not experts in the fields for which they create policy (i.e., politicians with a background in law trying to create climate change policy). Thus policy leaders, as well as laypeople, use narrative. Who these leaders are, at times, is just as important as what their stories say.

Some political scientists (Putnam, 2000) suggest that the survival of democracy in the United States depends upon reciprocal relationships gained through bridging social capital found in interactions in groups such as civic associations. Unfortunately, today much of US politics focus is on divisive online political marketing narratives rather than on bridging differences through various groups. Thus, US politics thrive not on bridged relationships but on sound bites, slogans, and narratives. In our post-fact, post-truth world, citizens are not engaging in practices that lead to bridging social capital, but instead, cling to their political identities or political tribes. In essence, citizens have become consumers who maintain brand loyalty and buy into the marketing narratives of their favorite political party or politician (McBeth & Shanahan, 2004). In such a world, as consumers, we are concerned about our lifestyle, others' perceptions, and our identity; thus, we seek out and believe narratives that reflect our identity (Kahan et al., 2011). Furthermore, we suggest that in this polarized, marketed world, individuals are increasingly reliant upon not only the stories they hear but also the mental image they hold of the narrator. Although narratives and narrators influence an individual's agreement or disagreement with a policy, we suggest narrators can be key to understanding policy support. As such, we suggest those influenced by the narrator mentally construct an image of this person by focusing on certain characteristics (education level, occupation, gender, religion). In addition, agreement with a narrator does not always equate to trust in the narrator. During the US presidency of Donald Trump, some of Trump's political base argued that while they agreed with Trump's policies, they did not necessarily trust him. White Evangelicals, for example, believed that Trump helped Evangelicals, that he shared their interests, and that they agreed with him on nearly all issues. At the same time, this very group did not find him honest or morally outstanding nor did they agree with his conduct (Pew Research Center 2020).

While we do not fully understand why some individuals place more importance on the narrator than the narrative, we know that both the constructor and construction of the narrative matters in today's political world. Relatedly, agreement or trust in the narrator also matters, even if the narrator has no practical knowledge of the topic at hand.

Thus, we ask the following research questions:

1: Do the beliefs of respondents about human-caused climate change (devotees or skeptics) influence their preference for climate change narrators?

2a: Congruent narrator: Do respondents agree more with congruent narrators who espouse narratives congruent to their belief systems?

2b: Incongruent N=narrator: Do individuals agree more with narratives congruent with their belief systems when told by an incongruent narrator?

3a: Narrator trust and congruent narratives: Do respondents trust a congruent narrator who espouses a narrative congruent to their belief systems more than they trust an incongruent narrator who espouses a narrative congruent to their belief systems?

3b: Narrator trust and incongruent narratives: Do respondents trust a congruent narrator who espouses a narrative incongruent to their belief systems more than they trust an incongruent narrator who espouses a narrative incongruent to their belief systems?

In asking these questions, we test the NPF micro-level hypothesis of congruency/ incongruency and reexamine the NPF micro-level hypothesis of narrator trust. Following Ertas (2015), we use the NPF to explore the power of the narrator and to suggest how narratives and narrators might interact with each other. In short, we explore the power of the narrator, the identity of the narrator, and congruent and incongruent narratives in the hope of better understanding the narrative dynamics of individual support for climate change policies.

In our study, we first review the literature on emotion, beliefs, confirmation bias, and narrative, along with a review of how individuals might choose a narrator simply based on the narrator's demographic characteristics, personal story, or political identity. We then discuss our policy issue, detail our methodology, present our results, and discuss findings.

THE NPF AND THEORETICAL BACKGROUND

At the heart of the power of narrative, as asserted by the NPF, is the fundamental assumption that individual decisions rest in emotions, beliefs, and identity (Shanahan et al., 2018). Kahneman (2011), for example, refers to an individual's quick and emotional responses as System I thinking. Instead of being rational maximizers of information, individuals seek out information that confirms their bias (Taber & Lodge, 2006). When confronted with information that contradicts their identity and beliefs, individuals experience cognitive dissonance and they seek to rationalize away their discomfort by finding information that reaffirms their identity, or better yet, they avoid cognitive dissonance causing information (Jost et al., 2013).

Defined in the NPF (Shanahan et al., 2018, p. 176) as having a plot, characters, a moral to the story, and a policy stance, the narrative serves as a heuristic, reducing complexity and reinforcing an individual's beliefs and political identity. These characteristics (particularly reinforcing beliefs) reveal why the use of narrative is popular in today's political arena. While fact-based, logical thinking (System II in Kahneman 2011) remains, today's political world focuses on competing narratives with less attention paid to fact. In other words, the political arena is more likely to rely on competing narratives. With that said, many individuals do not necessarily think they are using a narrative. Instead, as Kahan et al.'s work (2012) suggests, individuals often believe they bring facts and evidence to back up their narrative while their political opponents use emotional narratives.

None of this, of course, is new. Rahn (1993) and Ahler and Sood (2018) trace the tendency of individuals to generalize about others who have different political views when making decisions to Walter Lippman who viewed this tendency as part of human cognition and a way that humans simplify the world and "see pictures in our head" (Lippman, 1922). Today, it is easy to view this generalization about those who share and do not share our political identity in the context of sociopolitical brands (Ahler & Sood, 2018). Political campaigners even use information about the shopping habits of individuals to target voters. Simmons Research (Politico Magazine, 2018), for example, provides data on the shopping habits of Republicans and Democrats showing distinctive differences between partisans in everything from automobile choice to food and media choices.

These generalizations create neat packages for us to simplify reality and categorize others as either outsiders or insiders. However, as Ahler and Sood (2018) show, our generalizations are often wildly wrong. Republicans tend to overestimate the number of Democrats who are union members, gay, lesbian, bisexual, transgender, black, atheist, or agnostic. Similarly, Democrats tend to overestimate the number of Republicans who are older than 65 or who make more than $250,000 a year. These misperceptions have consequences as partisans view the other party negatively based on these generalizations. When individuals know that the two parties are actually not that far apart on demographics, their feeling of animosity may diminish (Ahler & Sood, 2018).

The NPF does not list the narrator as an element of a policy narrative, though it is easy to conclude that who tells a story matters. In narrative terms, the narrator of a story might serve as a heuristic, used by individuals to determine their support for a narrative. The NPF has not fully ignored the power of the narrator as it offers one micro-level hypothesis (Shanahan et al., 2018, p. 235) that examines "narrator trust." This micro-level hypothesis (tested only once) reads, "As narrator trust increases, an individual is more likely to be persuaded by the narrative" (Shanahan, 2018, p. 234). Specifically, Erstas (2015) found that individuals trusted narrators that were congruent with the individual's pre-existing beliefs about charter schools.

The NPF hypothesis concerning congruence and incongruence, is more frequently tested and states, "As perception of congruence increases, an individual is more likely to be persuaded by the narrative" (Shanahan et al., 2018). The basic idea of this hypothesis is that individuals look for narratives that are culturally congruent with their prior cultural beliefs. Jones and Song (2014) found this empirically in their study of climate change, as did Husmann (2015) in her study of obesity. These NPF studies and others (Lybecker et al., 2013; McBeth et al., 2010; McBeth et al., 2014; McBeth et al., 2016; Lybecker et al., 2016; Clemons et al., 2012) suggest that individuals look for a narrative that fits their cultural values. In a series of studies on recycling (e.g., Lybecker et al., 2013) and support for river restoration (e.g., Lybecker et al., 2016), the authors found that a duty-based narrative (grounded in individual responsibility, business efficiency, and local empowerment) appealed to liberals and made conservatives significantly supportive of recycling and river restoration. One goal of the NPF is to help policymakers make better use of narrative (Shanahan et al., 2019; Crow & Jones, 2018). These aforementioned studies suggest that articulating narratives dealing with issues like recycling and river restoration can make these issues more congruent to conservatives. None of these studies, however, had an identified narrator. Additionally, a study involving views toward Islam and narrative congruency found that a narrative did not make those with the most entrenched political views less negative toward Islam (Clemons et al., 2020). Thus, there may well be issues where beliefs are so entrenched or sticky that congruent narratives lack power.

We contend again that narrators also matter and that an individual likely looks for a narrator he/she trusts and believes will spin a tale that is consistent with what the individual wants to hear. Building upon work by Druckman (2001), Oxley, et al. (2014) show that an individual's evaluation of the credibility of a source is part of how a message leads to problem definition. Oxley, et al. (2014) also demonstrates there are political ideology dimensions to how individuals evaluate the credibility of a source. Furthermore, Kahan, et al.'s (2011) work on expertise suggests that individuals seek out "experts," and "experts" are those who share similar cultural beliefs with the individual. For example, concerning climate change, someone who supports anthropocentric climate change will likely seek out the narrative of an activist or elected official who tells the scientists' point of view, whereas a climate change skeptic might seek out an activist or politician who engages in climate change skepticism. In this regard, the individual does not have to

understand climate change in either situation; instead, the individual trusts that the narrator's narrative will be culturally consistent with their prior beliefs. Finally, the individual will likely have empathy with the narrator because the narrator is part of the individual's in-group (Bloom, 2018).

All this suggests that individuals look for narrators to tell narratives that fit their values. Imagine an individual in the United States, who believes climate change is a hoax and that it harms working-class individuals, is watching TV when a person identified as part of the populist wing of the Republican Party responds to a question about climate change policy and its impact on the working class. This individual will likely trust the narrator and pay attention to the narrative because they want their bias confirmed. Conversely, someone who believes the opposite (that the effects of climate change harm working-class individuals and that climate change policy can help working-class individuals) will reject the narrative and narrator and may not even listen to the narrative.

Although this is today's norm, democracies, such as the United States, assert that individuals must hear different views of political issues and must try to understand how others view the world. Thus, individuals must be able to hear divergent views from divergent narrators. Taking the given situation, a populist Republican supporter should be able to listen to the view that climate change policy can help working-class individuals. Further, the Trump supporter should listen to this view from narrators that they likely do not identify with because the individual does not fit the narrator image that the Trump supporter typically seeks out. Likewise, the Trump resistant individual should listen to the view that climate change policy can harm working-class individuals and, further, the Trump resistant should listen to this from narrators that they likely do not identify with because the person does not fit the narrator image. Unfortunately, the reality in today's world of high political polarization is that a Trump supporter and a former member of the Trump resistance are both unlikely to listen to someone with a differing view. Perhaps the weight of hearing different views and understanding how others view the world rests on the shoulders of narrators in the form of a consensus narrative.

POLICY ISSUE: THE WORKING CLASS AND CLIMATE CHANGE

Climate change is a commonly discussed scientific and public policy issue today. Climate change contributes to an increasing number of natural disasters (Banholzer et al., 2014; Kaplan, 2020), including more powerful hurricanes, lengthening wildfire seasons, extensive droughts, and rising numbers of refugees (Lister, 2014). The question of what causes these changes (is climate change human-caused or natural?) is at the forefront in today's political discussions. Thus, despite many recognizing the changes, there is disagreement on causes, and thus on the best steps to address climate change.

No matter one's perspective, moving forward necessitates understanding the divergent views and shaping inclusive discussion and action. Nowhere is this need for inclusion more evident than in the attitudes of working-class individuals. As with all groups within the United States, there is diversity within the working class. However, this group is more likely than other groups to have negative attitudes toward climate change policy (Bohr, 2014). In the United States, the former Trump Administration effectively painted climate change legislation and even scientific agreement on anthropocentric climate change as opposed to working-class interests. Former President Trump's appeal to "Make America Great Again" partially rested on reversing climate change legislation advanced by former President Obama (Guillen & Wolff, 2017). Trump worked to deregulate industries and sell his deregulation as part of returning jobs to the working class (the

beneficiaries of his policies). In particular, Trump presented the fossil fuel and coal industries as job providers to the working class (heroes), and he attested that deregulation would spur more jobs in these sectors. For example, in promoting environmental deregulation at the end of his first year in office, former President Trump declared, "For many decades, an ever-growing maze of regulations, rules, restrictions has (sic) cost our country trillions and trillions of dollars, millions of jobs, countless American factories, and devastated many industries" (Trump 2017).

The 2019 rollout of the "Green New Deal" (Friedman, 2019) by some Democrats in the US House and US Senate demonstrated the power of the Trump narrative in pushing back on other definitions of the working class and climate change. While the Green New Deal promised to link climate change policy to working-class jobs and to help specific communities harmed by the phasing out of carbon dioxide emissions, conservatives quickly pushed back accusing the plan as leading to devastating consequences for the working class (Weichert, 2019).

Nevertheless, there are other possible views of climate change policy and the working class. The working class, for instance, will likely be the most harmed by climate change, as compared to higher-income individuals, because they have fewer resources to adapt to needed changes or to move away from problems caused by climate change. In this narrative, the working class falls victim to those who deny climate change and climate change policy (Zehner, 2018). Furthermore, investments in new energy infrastructure and new technologies could well lead to significant numbers of jobs for the working class, making those who advocate such policies heroes. Finally, in this narrative, corporations who are resisting climate change policies are the villains who are harming the interests of the working class.

RESEARCH DESIGN AND METHODS

We conducted this study using Amazon's Mechanical Turk (henceforth MTurk). Four hundred and thirty-five (435) participants took part in the study and received a small cash payment. MTurk is increasingly popular in social science research. Although there are worries about the generalizability of MTurk, various studies demonstrate how it is an improvement over student and convenience sampling (Buhmeister, et al. 2011). In comparing MTurk samples to student and adult convenience samples and a randomized national sample (the 2008-9 ANES Panel Survey), Berinsky and colleagues note: "MTurk samples will often be more diverse than convenience samples and will always be more diverse than student samples" (p. 12). This makes them advantageous when compared to the long lamented "college sophomore in the laboratory" (Berinsky et al., 2012, p. 12). Other concerns over MTurk include worries over data integrity (Chandler et al., 2014). Yet, studies using MTurk samples have also been able to replicate studies such as the classic Asian Disease framing experiment and others based upon more representative samples (Casler et al., 2013; Goodman et al., 2013; Holden et al., 2013).

Based on Rahn (1993) and Ahler and Sood (2018), we contend that in a polarized society, individuals increasingly identify with others they see as similar based on what Lippman (1922) again termed the "pictures in their head." We also know that individuals are likely to empathize with another individual or a group perceived as part of his/her in-group (Bloom 2018). Thus, rather than creating two narrators that were wildly divergent in terms of political ideology (for example, a mechanic versus an environmental activist, scientist, or professor), we intentionally tried to make two narrators with similar social characteristics. In addition, given that our focus was the working class, we wanted to represent working-class individuals from both urban and rural perspectives. Our long-term research interest consists of finding a narrator that will appeal to both climate skeptics and climate devotees.

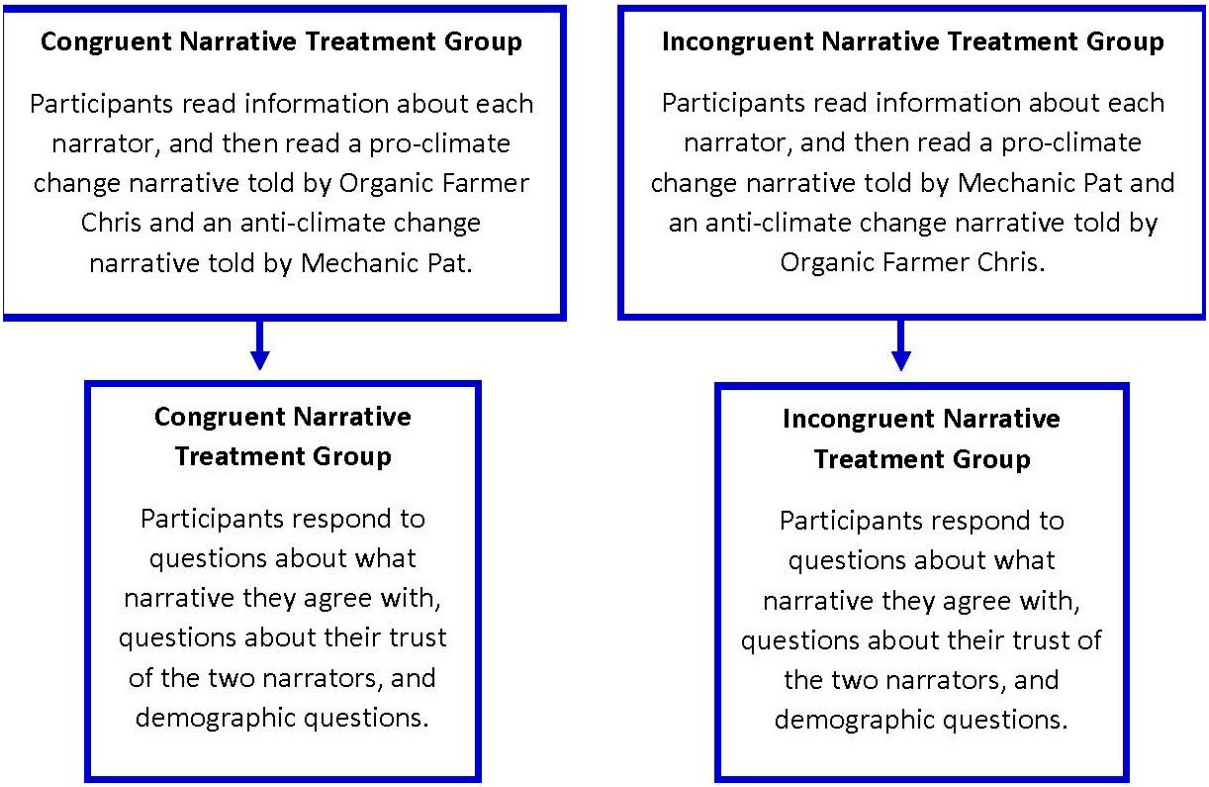
Despite what we perceived as social characteristics that minimized individual generalization toward the narrator, we predicted, based on Rahn (1993), Ahler and Sood (2018), and Bloom (2018), that respondents who did not agree that climate change is real and human-caused would prejudge Mechanic Pat as being in their in-group. We are basing this on the assumption that those who are climate change skeptics are more likely to identify with a mechanic based on data that shows that such skeptics tend to have completed less schooling and come more from the working class (Fagan & Huang, 2019). Additionally, climate change skeptics also tend to have less engagement with the natural world, and they work indoors rather than outdoors (Funk & Hefferon, 2019). Mechanics fit this classification. Conversely, we thought that respondents who agreed that climate change was both real and human-caused would view Organic Farmer Chris as being closer to their in-group and sociopolitical brand. Organic farmers are farmers of course, but the organic label signifies a certain fashion that will appeal to those who are climate change devotees who have high levels of education (Fagan & Huang, 2019). Organic food itself is almost like a fashion statement and a way of life, and those who support climate change policy are more likely to purchase organic food. At the same time, organic farmers are indeed farmers and because of this, they might appeal to the climate change skeptics because farmers in some parts of the country are part of a conservative base.

In our research design (see Figure 1 for a graphical depiction of our design), the study first asked the respondents for their level of agreement with the statement "the earth is warming mostly due to human activity" and then explained to the respondent that they would read two different narratives about climate change. The two narratives presented the respondents with two narrators, Mechanic Pat and Organic Farmer Chris. This technique, testing how individuals react to two narratives, is similar to the dueling frames literature (e.g., Rhidenour et al., 2019; Page & Duffy, 2009) and several NPF studies use dueling narratives (e.g., Lybecker et al., 2013; McBeth et al., 2010). After reading the descriptions of both narrators (see Appendix A), respondents were asked to indicate which narrator they would most likely agree with when it comes to climate change policy and its impact on working-class individuals. Our goal was to discover if respondents would clearly choose one narrator over another based on the limited information provided about each narrator. In short, we wanted to know if they would generalize (Ahler & Sood, 2018).

Again, referring to Figure 1, random assignment of participants to one of two treatments occurred. This was either a congruent treatment (where Organic Farmer Chris tells a pro-climate change narrative aimed at the working class and Mechanic Pat tells an anti-climate change narrative aimed at the working class) or an incongruent treatment (where the two narrators tell the opposite narrative compared to that of the congruent treatment). This stage of the experiment explored whether respondents would agree with the narrative, depending on who told the narrative. For example, would climate change devotees equally support a pro-climate change policy narrative told by either Mechanic Pat or by Organic Farmer Chris? In addition, would climate change skeptics equally support an anti-climate change policy narrative told by either Mechanic Pat or Organic Farmer Chris? The respondents received the narratives in random order. One narrative, based on an article by Weichert (2019), is opposed to climate legislation because the narrator believes that such policy both blames working-class individuals for the problems and harms working-class individuals. The other narrative, based on an article by Zehner (2018), argues that climate change harms working-class individuals the most and, as a result, climate change legislation will benefit working-class individuals the most. The plot of both narratives is "change is only an illusion" (Stone, 2012, p. 165), which Stone explains this way, "You always thought things were getting worse (or better). But you were wrong. Let me show you some evidence that

things are in fact going in the opposite direction." In the study's design phase, a group of NPF scholars evaluated the narratives to ensure that each was an equal combination of narrative elements and facts. In other words, we worked to ensure that each narrative was equal in narrativity. To ensure that the narratives were equal in reading difficulty we conducted a commonly used test for reading level and reading ease. Both narratives had a Flesch-Kincaid reading grade level of 10. The Flesch Reading Ease score was 57 for the anti-climate change narrative and 59 for the pro-climate change narrative meaning that the two narratives were equally easy to read (Kincaid et al., 1975).

Figure 1. Research Design



While reading the two climate change narratives, the respondents read additional information about each narrator (See Appendix B for pro and anti-climate change narratives, rotated between narrators in the two treatments). After treatment, survey respondents reported with whom they now agree, their trust of each narrator, and demographic characteristics such as gender, political ideology, age, and income.

There are three dependent and five independent variables (Table 1)[i]. A simple contingency table and a Chi-Square calculated for dependent variables one and two. Then, because the dependent variable was dichotomous, we performed a logit regression. In addition, a Chi-Square test examined the association between who tells a story and agreement. Finally, a *t*-test examined differences in trust of narrators between devotees and skeptics.

RESULTS

Research Question 1: Do the beliefs of respondents about human-caused climate change (devotees or skeptics) influence their preference for climate change narrators?

Our answer here is yes, but with skeptics more divided in their initial choice. Table 2 presents the respondents' initial choice of what narrator they are most likely to agree with based solely on initial information. Skeptics divided evenly on the choice between Mechanic Pat (52%) and Organic Farmer Chris (48%) whereas 79% of devotees chose Organic Farmer Chris over Mechanic Pat (21%). Table 2 reveals that the chi-square was significant. The logit model in Table 3 reveals three significant relationships: climate change attitudes (devotees more likely to choose Organic Farmer Chris), gender (females are more likely to choose Organic Farmer Chris), and political ideology (liberals are more likely to choose Organic Farmer Chris).

Table 1. Variable Definitions

Dependent Variables

Pre-treatment choice of Pat or Chris

Respondents were given information about the two narrators (Appendix A), then asked to determine with which narrator they would likely agree.

Post-treatment choice of Pat or Chris

After treatment, respondents were asked with which narrator they agree.

Post-treatment trust rating of Pat and Chris

After treatment, respondents were asked to rate how much they trust each narrator on a scale of one (very untrustworthy) to five (very trustworthy).

Independent Variables

Climate change attitudes

Agreement with the statement: "The earth is warming due mainly to human activity." A five-point Likert scale, with 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree), 5 (strongly agree). The data were reduced to 3-point Likert scale, with those who disagree or were neutral were deemed skeptics and those who agreed were deemed devotees.

Gender

female, male, and decline to answer.

Political ideology

Five-point Likert scale, with 1 (strong conservative), 2 (conservative), 3 (moderate), 4 (liberal), 5 (very liberal).

Income

Total household income with seven categories: less than $20,000, $20,000 to $34,999, $35,000 to $49,999, $50,000 to $74,999, $75,000 to $99,9999, $100,000 to $149,999, and $150,000 or more.

Age

Six categories: 18-24, 25-34, 35-44, 45-54, 55-64, 65+

Table 2. Respondents Initial Choice of Pat or Chris

Agreement	Skeptics (%) n	Devotees (%) n
Agree with Mechanic Pat	(52%) 72	(21%) 62
Agree with Organic Farmer Chris	(48%) 67	(79%) 229
Total	139	291

$X^2 = 40.28$, df = 1, p. < 0.001

Table 3. Logit Model of Respondents Initial Choice of Pat or Chris

Variable	Estimate	Robust S.E.	Z	Wald Statistic	df	p.
Intercept	-1.484	0.735	-2.031	4.123	1	0.042*
Climate	1.177	0.246	4.753	22.594	1	0.001**
Gender	-0.601	0.235	-2.524	6.368	1	0.012*
Ideology	0.252	0.106	2.444	5.975	1	0.015*
Income	0.065	0.078	0.825	0.680	1	0.409
Age	0.109	0.101	1.015	1.030	1	0.310

McFadden $R^2 = 0.10$, Nagelkerke $R^2 = 0.16$
Note. *p. <. 0.05; **p. < 0.01

Research Question 2a: Congruent narrator: Do respondents agree more with congruent narrators who espouse narratives congruent to their belief systems?

Not surprisingly, the answer is yes. Table 4 reveals the results of the congruent study where Organic Farmer Chris tells the pro-climate change working-class narrative and Mechanic Pat tells the anti-climate change working-class narrative. In this treatment, 63% of skeptics choose Mechanic Pat as the narrator with whom they agreed (as Mechanic Pat told the anti-climate change narrative). While 82% of devotees choose Organic Farmer Chris (who told the pro-climate change narrative). The Chi-Square was significant. The logit model in Table 5 produced two significant relationships with climate change attitudes: devotees and political liberals are more likely to choose Organic Farmer Chris.

Table 4. Respondents Agreement with Narrator after Treatment-Congruent Study

Agreement	Skeptics (%) n	Devotees (%) n
Agree with Pat	(63%) 45	(18%) 28
Agree with Chris	(37%) 27	(82%) 127
Total	72	155

$X^2 = 44.92$, df =1, p. < 0.01

Table 5. Logit Model of Respondents Agreement with Narrator after Treatment-Congruent Study

Variable	Estimate	Robust S.E.	Z	Wald Statistic	Df	p.
Intercept	-4.782	1.198	4.005	16.042	1	0.001**
Climate	1.747	0.359	4.818	23.215	1	0.001**
Gender	0.325	0.346	0.942	0.887	1	0.346
Ideology	0.434	0.165	2.8235	8.040	1	0.005**
Income	0.168	0.114	1.373	1.885	1	0.170
Age	0.064	0.156	0.412	0.170	1	0.680

McFadden $R^2 = 0.21$, Nagelkerke $R^2 = 0.32$
Note. **p. < 0.01

Research Question 2b. Incongruent narrator: Do individuals agree more with narratives congruent with their belief systems when told by an incongruent narrator?

The answer is yes. The narrative is stronger than the narrator, but, as you will see later, the narrator does matter. Table 6 shows the results from the incongruent narrative treatment with 69% of skeptics agreeing with Organic Farmer Chris (who told the anti-climate change narrative) compared to 68% of devotees who agreed with Mechanic Pat (who in this treatment told the pro-climate change narrative). The Chi-Square was significant ($X^2 = 23.551$, df = 1, p. < 0.001). The logit model in Table 7 produced one significant relationship where skeptics were more likely to agree with Organic Farmer Chris and the other independent variables were not significant.

Table 6. Respondents Agreement with Narrator after Treatment-Incongruent Study

Choice	Skeptics (%) n	Devotees (%) n
Choose Mechanic Pat	(31%) 21	(68%) 92
Choose Organic Famer Chris	(69%) 46	(32%) 44
Total	67	136

$X^2 = 23.551$, df = 1, p. < 0.001

Table 7. Logit Model of Respondents Agreement After Treatment-Incongruent Study

Variable	Estimate	Robust S.E.	Z	Wald Statistic	df	p.
Intercept	2.990	0.990	2.963	8.780	1	0.003
Climate	-1.287	0.347	-3.734	13.940	1	0.001**
Gender	0.012	0.319	0.038	0.001	1	0.970
Ideology	-0.245	0.141	-1.771	3.135	1	0.077
Income	-0.064	0.115	0.605	0.366	1	0.545
Age	-0.008	0.143	0.056	0.003	1	0.955

McFadden $R^2 = 0$ .10, Nagelkerke $R^2 = 0.17$
Note. **p. < 0.01

Table 8 provides an analysis of agreement with either the pro-climate change or anti-climate change narrative and the narrator who tells the story. While congruent narratives are most important to individuals, narrators do matter. Table 8 reveals that both devotees had a higher percentage of agreement with Organic Farmer Chris over Mechanic Pat regardless of the narrative

told. For example, among devotees, when Organic Farmer Chris tells the pro-climate change story, 82% of devotees agree with Organic Farmer Chris compared to only 68% when Mechanic Pat tells the story (this was statistically significant). Similarly with devotees, when Organic Farmer Chris tells the anti-climate change story, 32% agree with Organic Farmer Chris compared to only 18% when Mechanic Pat tells the same story (this was statistically significant). Among skeptics, when Organic Farmer Chris tells the pro-climate change story, 37% of skeptics agree with Organic Farmer Chris compared to 31% who agree with Mechanic Pat when he tells the story (this was not statistically significant). Finally, when Organic Farmer Chris tells the anti-climate change story, 69% of skeptics agree with him versus only 63% who agree with Mechanic Pat when he tells the same story (this was not statistically significant). We conclude that while devotees look for a congruent narrative, the narrator Organic Farmer Chris influences them.

Research Question 3a: Narrator trust and congruent narratives: Do respondents trust a congruent narrator who espouses a narrative congruent to their belief systems more than they trust an incongruent narrator who espouses a narrative congruent to their belief systems?

This answer is surprisingly no. Table 9 provides data on the trust of the narrator broken out by devotee and skeptic. Among devotees, there was no statistically significant difference between the trust of Mechanic Pat or Organic Farmer Chris when either told the pro-climate change narrative. Similarly, there was no significant difference in trust among skeptics when either Mechanic Pat (3.69) or Organic Farmer Chris (3.65) told the anti-climate change narrative.

Research Question 3b: Narrator trust and incongruent narratives: Do respondents trust a congruent narrator who espouses a narrative incongruent to their belief systems more than they trust an incongruent narrator who espouses a narrative incongruent to their belief systems?

The answer is yes and no (see Table 9). Devotees were significantly different in their trust of Organic Farmer Chris and Mechanic Pat when they told the anti-climate change narrative. When Mechanic Pat tells the story, devotees give him an average trust rating of 3.19 compared to giving Organic Farmer Chris an average trust rating of 3.50 when he tells the same anti-climate change narrative ($t = 2.66$, $df = 290$, p. 0.0085). Skeptics, on the other hand, did have a higher average trust rating of Mechanic Pat (3.69) compared to Organic Farmer Chris (3.45) when either tells the pro-climate narrative, but the difference was not statistically significant ($t = 1.606$, $df = 138$; p. .1106).

Table 8. Agreement with Narrative of Devotee or Skeptic Based on Who Tells the Story

Devotee agreement with the pro-climate change narrative
When Organic Farmer Chris tells the story is 82%.
When Mechanic Pat tells the story is 68%.
$X^2 = 7.94$, df =1, p. 0.004 (significant)
Devotee agreement with the anti-climate change narrative
When Organic Farmer Chris tells the story is 32%.
When Mechanic Pat tells the story is 18%.
$X^2 = 7.94$, df = 1, p. 0.004 (significant)
Skeptic agreement with the pro-climate change narrative
When Organic Farmer Chris tells the story is 37%
When Mechanic Pat tells the story is 31%
$X^2 = .5818$, df =1, p. 0.4455 (not significant)
Skeptic agreement with the anti-climate change narrative
When Organic Farmer Chris tells the story is 69%
When Mechanic Pat tells the story is 63%
$X^2 = .5818$, df =1, p. 0.4455 (not significant)

Note. Count data led to a Chi-Square calculation. Data in percentages are for presentation purposes.

Table 9. Trust of Devotee or Skeptic Based on Who tells the Story

Devotee Trust of Narrator Telling the Pro-Climate Change Narrative	Mean	SD	n
When Mechanic Pat tells the story	4.00	0.678	137
When Organic Farmer Chris tells the story	4.03	0.704	156
t = 0.3703			
df = 291			

Devotee Trust of Narrator Telling the Anti-Climate Change Narrative	Mean	SD	n
When Mechanic Pat tells the story	3.19	0.940	155
When Organic Farmer Chris tells the story	3.50	1.058	137
t = 2.66			
df = 290			
p. 0.0085**			

Skeptic Trust of Narrator Telling the Pro-Climate Change Narrative	Mean	SD	n
When Mechanic Pat tells the story	3.69	0.821	70
When Organic Farmer Chris tells the story	3.45	0.943	70
t = 1.606			
df = 138			
p. 0.1106			

Skeptic Trust of Narrator Telling the Anti-Climate Change Narrative	Mean	SD	n
When Mechanic Pat tells the story	3.69	0.821	70
When Organic Farmer Chris tells the story	3.65	1.048	68
t = .2500			
df = 136			
p. 0.8030			

Note. ** p. < 0.01

DISCUSSION

We find that, prior to reading a narrative, devotees initially favor Organic Farmer Chris overwhelmingly (79%). This highlights the power of identifying with the in-group (Ahler & Sood, 2018) and how the pictures in our head (Lippmann, 1922) influence our political decisions in our post-fact world. Surprisingly, skeptics were initially divided between Mechanic Pat and Organic Farmer Chris when choosing the person with whom they were more likely to agree. We had expected skeptics to identify more with Mechanic Pat compared to Organic Farmer Chris, but that was not necessarily the case even in the initial choice. Organic Farmer Chris is a narrator that has broad appeal to both skeptics and devotees. This is a critical finding and one that we discuss in more detail later. Gender also plays a role, as women were more likely to choose Organic Farmer Chris. This data provides some initial evidence for the NPF about the power of the narrator.

When narratives entered into the scenario, not surprisingly, there were shifts in agreement from the initial choice of with which narrator the respondent thought they would agree. This provides backing to the NPF congruency hypothesis (Shanahan et al., 2018). The congruent treatment played out mainly as expected; skeptics agreed with Mechanic Pat telling the anti-climate change story and devotees agreed with Organic Farmer Chris telling the pro-climate change story. This shows the power of narratives that are congruent with an individual's pre-existing beliefs, and the findings are consistent with other NPF studies (Lybecker et al., 2013, Clemons et al., 2012).

Similarly, results were not surprising in the incongruent treatment as skeptics agreed with Organic Farmer Chris when he told the anti-climate change story and devotees agreed with Mechanic Pat when he told the pro-climate change story. In this regard, the findings in both the congruent and incongruent treatments show the power of the narrative over the narrator in that respondents chose the predicted narrative based on their pre-existing beliefs about climate change. Yet, once again, there is nuance in the data, and this provides important evidence of the power of the narrator. Specifically, devotees significantly agree more with Organic Farmer Chris when he tells the pro-climate change story (in the congruent treatment) than they do with Mechanic Pat when he tells the story (in the incongruent treatment). Narrators certainly matter and the NPF should pursue more research in the area of the narrator's power.

We were also surprised that skeptics were no more likely to agree with Mechanic Pat compared to Organic Farmer Chris regardless of the narrative told (refer to Table 9). We again expected that skeptics would identify with—and thus be more likely to agree with—Mechanic Pat. Based on the data, this was not the case. Perhaps, this is again simply a result of credibility as Chris is an organic farmer who works the land but still maintains ties with a family farm, and though educated in an elite school (Ohio State University), he was also educated in a public school in a more traditional Midwestern state (that voted for Trump in 2016). Conversely, we were not surprised that devotees always agreed more with Organic Farmer Chris than with Mechanic Pat regardless of the story told. However, somewhat surprising, Devotee agreement with Organic Farmer Chris when he tells the anti-climate change narrative is quite high (32%), showing the power of the narrator when it comes to agreement. Devotees, it seems, could listen to Organic Farmer Chris to some degree while they had a much more difficult time listening to Mechanic Pat. There is intriguing data for future NPF research in Table 9 demonstrating the power of the narrator.

Our study advances previous NPF research on the trust of the narrator (Erstas, 2015). In our data, when it comes to the trust of the narrator, devotees surprisingly trusted Mechanic Pat and Organic Farmer Chris equally when both told the pro-climate change narrative. This is surprising since devotees had a significantly higher agreement with the pro-climate change narrative when told by Organic Farmer Chris and not Mechanic Pat. This, of course, shows the power of the narrative and in this case, devotees seem to trust the narrative regardless of the narrator. Yet, devotees trusted Organic Farmer Chris significantly more than Mechanic Pat when telling the anti-climate change narrative. We would assume instead that the power of the narrative would mean that devotees would equally distrust the narrator of an anti-climate change narrative, but that is not the case. Thus, for some respondents, the level of trust and agreement appear to be separate elements, while for others trust and agreement intertwine. This suggests that some individuals are more concerned about their level of trust for the narrator when deciding on an agreement, while others are less concerned about this.

CONCLUSION

What does this all mean in terms of our questions about the interplay of narrators and narratives and what does it mean for public policy process theory and for future NPF studies? We contend that the power of the narrator, Organic Farmer Chris, is particularly intriguing. As a flip side to this, contrary to expectations, skeptics did not overwhelmingly identify with Mechanic Pat. Organic Farmer Chris' power as a narrator with both Devotees and Skeptics suggest that a narrator character like an organic farmer is a preferred narrator to tell the working class pro-climate change narrative, as skeptics were equally likely to listen to Organic Farmer Chris as to Mechanic Pat (refer to Table 9). We know that identity matters (Ahler & Sood, 2018), we intentionally choose the organic farmer as a narrator whose identity might build a bridge between skeptics and devotees. We conjecture that an organic farmer is someone who skeptics can identify with as a narrator even when that narrator is telling a pro-climate change story. This dual identity is crucial in a narrator who might bridge between polarized groups. Importantly, a farmer invokes pastoral images as well as the image of the family farm, which appeals to rural individuals who are skeptical of climate change. The fact that the farmer is an organic farmer might make him equally appealing to climate change supporters. While this study establishes that narrators matter, we would be interested in the impact of a narrator like Organic Farmer Chris telling a narrative more intentionally constructed to reach a climate change skeptic. Our findings as least partially confirm our original idea that individuals base their beliefs on the pictures in their heads. Since individuals base their beliefs on mental images and narratives, political groups should capitalize on those tendencies by providing trustworthy and relatable narratives and narrators.

Previous research (e.g., Lybecker et al., 2013) asserts that narratives serve as a heuristic reducing uncertainty, and that while narratives can certainly divide individuals and groups, they can also build bridges between opposing groups (Lybecker et al., 2016; McBeth et al., 2017). Based on previous research (McBeth et al., 2017; McBeth et al., 2014; Lybecker et al., 2013), we ask how skeptics might react to a working-class climate narrative that (1) uses science but also reduces the abstract nature of climate change, (2) effectively uses the right heroes, (3) avoids using a villain, (4) uses effective victims, and (5) is told by Organic Farmer Chris.

Narratives can build bridges to conservatives in environmental issues by including heroic characterizations of individual responsibility and concern for business (e.g., Lybecker et al., 2013). Narratives that do not use villains and rather use sympathetic victims (McBeth et al., 2017) and that also use concrete real-life examples instead of abstract scientific ones are also more powerful in building these bridges (McBeth et al., 2014). However, this previous research misses a narrator who, when using such a narrative, can enhance the power of the narrative.

Overall, the current research shows the potential power of a narrator in strengthening democracy through building bridges between pro-climate change advocates and those more skeptical of climate change. The NPF has a role in helping practitioners better use narratives (Crow & Jones 2018; Shanahan et al., 2019) and use narratives and narrators to build bridges between these groups is particularly crucial in securing working-class support for climate change policy. More research into the narrator's role in reducing polarization between groups would add greatly to the NPF and to the NPF's role in furthering both democracy and science (Jones & McBeth 2020).

REFERENCES

Abramowitz, Alan. 2010 *The Disappearing Center: Engaged Citizens, Polarization, and American Democracy*. New Haven: Yale University Press.

Ahler, Douglas J., and Gaurav Sood. 2018. "The Parties in our Heads: Misperceptions About Party Composition and Their Consequences." *The Journal of Politics* 80(3): 964-981.

Andris, C., Lee, D., Hamilton, M.J., Martino, M., Gunning, C.E. and Selden, J.A., 2015. "The Rise of Partisanship and Super-cooperators in the U.S. House of Representatives." *PLOSOne 10*(4):1-14. https://doi.org/10.1371/journal.pone.0123507.

Badger, Emily, Kevin Quealy and Josh Katz. 2021. "A Close-Up Picture of Partisan Segregation, Among 180 Million Voters." *The New York Times* March 17 https://www.nytimes.com/interactive/2021/03/17/upshot/partisan-segregation-maps.html (Accessed May 11, 2021).

Ballew, Matthew. T., Adam R. Pearson, Matthew H. Goldberg, M. H., Seth A. Rosenthal, and Anthony Leiserowitz. (2020). "Does Socioeconomic Status Moderate the Political Divide on Climate Change? The Roles of Education, Income, and Individualism." *Global Environmental Change 60:* 102024.

Banholzer, Sandr., James Kossin, and Simon Donner. 2014. "The Impact of Climate Change on Natural Disasters." In *Reducing Disaster: Early Warning Systems for Climate Change* (pp. 21-49).Springer, Dordrecht.

Bazelon, Emily. 2014. *Sticks and Stones: Defeating the Culture of Bullying and Rediscovering the Power of Character and Empathy*. Random House: New York, NY.

Berinsky, Adam J., Gregory A. Huber, and Gabriel S. Lenz. 2012. "Using Mechanical Turk as a Subject Recruitment Tool for Experimental Research." *Political Analysis* 20: 351-68.

Bloom, Paul. 2017. "Empathy and its Discontents." *Trends in Cognitive Sciences 21*(1): 24-31.

Bohr, Jeremiah. 2014. "Public Views on the Dangers and Importance of Climate Change: Predicting Climate Change Beliefs in the United States through Income Moderated by Party Identification." *Climatic Change* 126 (1-2): 217-227.

Buhmeister, Michael D., Tracy Kwang, and Samuel D. Gosling. 2011. "Amazon's Mechanical Turk: A New Source of Inexpensive, Yet High-Quality, Data?" *Perspectives on Psychological Science* 6: 3-5.

Casler, Krista, Lydia Bickel, and Elizabeth Hackett. 2013. "Separate but Equal? A Comparison of Participants and Data Gathered Via Amazon's Mturk, Social Media, and Face-to-Face Behavioral Testing." *Computers in Human Behavior* 29: 2156-60.

Chandler, Jesse, Pam Mueller, and Gabriele Paolacci. 2014. "Nonnaïveté among Amazon Mechanical Turk Workers: Consequences and Solutions for Behavioral Researchers." *Behavior Research Methods* 46: 112-30.

Chinni, Dante, Aaron Zitnerm, and Brian McGill. 2019. "The Disappearing Political Center: In More Places, Elections Aren't Close," *The Wall Street Journal* (September 20, 2019).

https://www.wsj.com/articles/the-disappearing-political-center-in-more-places-elections-arent-close-11568984400. (Accessed May 11, 2021).

Clemons, Randy S., Mark K. McBeth, Rolf Peterson, and Carl Palmer. 2020. "The Narrative Policy Framework and Sticky Beliefs: An Experiment Studying Islamophobia." *International Journal on Minority and Group Rights* 27(3): 472-500.

Clemons, Randy S., Mark K. McBeth, and Elizabeth Kusko. 2012. "Understanding the Role of Policy Narratives and the Public Policy Arena: Obesity as a Lesson in Public Policy Development." *World Medical & Health Policy* 4 (2): 1-26.

Cook, John. Naomi Oreskes, Peter T Doran, William R L Anderegg, Bart Verheggen, Ed W. Maibach, J. Stuart Carlton, Stephan Lewandowsky, Andrew G. Skuce, Sarah A. Green, Dana Nuccitelli, Peter Jacobs, Mark Richardson, Bärbel Winkler, Rob Painting and Ken Rice. 2016. "Consensus on Consensus: A Synthesis of Consensus Estimates on Human-Caused Global Warming." *Environmental Research* Letters 11(4): DOI:10.1088/1748-9326/11/4/048002.

Crow, Deserai and Michael D. Jones. 2018. "A Guide to Telling Good Stories that Affect Policy Change." *Policy & Politics 46*(2): 217-234.

Dahlstrom, Michael F. 2014. "Using Narratives and Storytelling to Communicate Science with Nonexpert Audiences." *Proceedings of the National Academy of Sciences of the United States of America* (September 16), Supplement 4: 13614-13620. DOI: 10.1073/pnas.1320645111.

Druckman, James N. 2001. "On the Limits of Framing Effects: Who can Frame?" *Journal of Politics 63*(4): 1041-1066.

Ertas, Nevbahar. 2015. "Policy Narratives and Public Opinion Concerning Charter Schools." *Politics & Policy* 43(3): 426-451.

Fiorina, Morris P, Samuel J. Abrams, and Jeremy C. Pope. 2010. *Culture War? The Myth of a Polarized America, 3rd edition*. New York: Longman.

Freedom House. 2021, "Nations in Transit 2021: The Antidemocratic Turn." https://freedomhouse.org/report/nations-transit/2021/antidemocratic-turn. (Accessed May 1, 2021).

Freedom House. 2019. "Democracy in Retreat." https://freedomhouse.org/sites/default/files/Feb2019_FH_FITW_2019_Report_ForWeb-compressed.pdf. (accessed October 1, 2020).

Friedman, Lisa. 2019. "What Is the Green New Deal? A Climate Proposal, Explained." *New York Times*. February 21, https://www.nytimes.com/2019/02/21/climate/green-new-deal-questions-answers.html (accessed April 17, 2020).

Foroughi, Hamid, Gabriel Yiannis, and Fotaki, Marianna. 2019. "Leadership in a Post-Truth Era: A New Narrative Disorder?" *Leadership* 15 (2): 135-151. DOI: 10.1177/1742715019835369.

Fagan, Moira, and Christine Huang. 2019. "A Look at How People Around the World View Climate Change." April 18. https://www.pewresearch.org/fact-tank/2019/04/18/a-look-at-how-people-around-the-world-view-climate-change/ (accessed August 23, 2020).

Funk, Cary and Meg Hefferon. 2019. "US Public Views on Climate Change and Energy."Pew Research Center. https://www.pewresearch.org/science/2019/11/25/u-s-public-views-on-climate-and-energy/ (accessed October 2, 2020).

Gallup. 2020."Presidential Approval Ratings – Donald Trump." https://news.gallup.com/poll/203198/presidential-approval-ratings-donald- trump.aspx (Accessed August 23, 2020).

Goodman, Joseph K., Cynthia E. Kryder, and Amar Cheema. 2013. "Data Collection in a Flat World: Strengths and Weaknesses of Mechanical Turk Samples." *Journal of Behavioral Decision Making* 26: 213-24.

Guillen, Alex and Eric Wolff. 2017. "5 Big Things that Trump is Doing to Reverse Obama's Climate Change Policies." *Politico*, October 10, https://www.politico.com/story/2017/10/10/trump-obama-climate-clean-energy-243655 (accessed April 17, 2020).

Harrison, Kellie L. 2020. "The Forgotten Center: An Analysis into the Disappearing Moderate in a Climate of Increasing Political Polarization." *Inquiries Journal* 12(9). http://www.inquiriesjournal.com/a?id=1796 (accessed February 1, 2021).

Holden, Christopher J., Trevor Dennie, and Adam D. Hicks. 2013. "Assessing the Reliability of the M5-120 on Amazon's Mechanical Turk." *Computers in Human Behavior* 29: 1749-54.

Husmann, M.A., 2015. "Social Constructions of Obesity Target Population: An Empirical Look at Obesity Policy Narratives. *Policy Sciences 48*(4): 415-442.

Islam, S. Nazrul and John Winkel. 2017. "Climate Change and Social Inequality." United Nations Department of Economic & Social Affairs. https://www.un.org/esa/desa/papers/2017/wp152_2017.pdf (accessed August 23, 2020).

Jost, John T., Erin P. Hennes, and Howard Lavine. 2013. "Hot" Political Cognition: Its Self-Group-, and System-Serving Purposes. In (pp. 851-875. *Oxford Library of Psychology The Oxford Handbook of Social Cognition*. Edited by D.E. Carlston. Oxford University Press.

Lister, Matthew. 2014. "Climate Change Refugees." *Critical Review of International Social and Political Philosophy*, *17*(5): 618-634.

James, Gareth, Daniela Witten, Trevor Hastie, and Robert Tibshirani. 2017. *An Introduction to Statistical Learning*, 8th edition, Springer Science.

Jones, Michael D. and Mark K. McBeth. 2020. "Narrative in the Time of Trump: Is the Narrative Policy Framework Good Enough to be Relevant?" *Administrative Theory & Praxis* April 11. https://doi.org/10.1080/10841806.2020.1750211 (accessed February 1, 2021).

Kahan, Dan M., Ellen Peters, Maggie Wittlin, Paul Slovic, Lisa Larrimore Ouellette, Donald Braman, and Gregory Mandel. 2012. "The Polarizing Impact of Science Literacy and Numeracy on Perceived Climate Change Risks." *Nature Climate Change* 2(10): 732-735.

Kahan, Dan M., Hank Jenkins-Smith, and Donald Braman. 2011. "Cultural Cognition of Scientific Consensus." *Journal of Risk Research* 14(2): 147-174.

Kahneman, Daniel. 2011. *Thinking, fast and slow*. New York: Macmillan.

Kincaid, J. Peter, Robert P. Fishburne Jr, Richard L. Rogers, and Brad S. Chissom. 1975. "Derivation of New Readability Formulas (Automated Readability Index, Fog Count and Flesch Reading Ease Formula) for Navy Enlisted Personnel." Institute for Simulation and Training 56. https://stars.library.ucf.edu/cgi/viewcontent.cgi?article=1055&context=istlibrary (accessed April 19, 2020).

Knackmuhs, Eric, James Farmer, and Doug Knapp. 2019. "The Relationship Between Narratives, Wildlife Value Orientations, Attitudes, and Policy Preferences." *Society & Natural Resources* 32(3): 303-321.

Lippmann, Walter. 1922. *Public Opinion*. London: Routledge.

Luscombe, Belinda. 2020. "Would You Date Someone With Different Political Beliefs? Here's What a Survey of 5,000 Single People Revealed." *Time Magazine*. (October 7, 2020) https://time.com/5896607/dating-political-ideology/ (accessed February 1, 2021).

Lybecker, Donna L., Mark K. McBeth, and Elizabeth Kusko. 2013. "Trash or Treasure: Recycling Narratives and Reducing Political Polarisation." *Environmental Politics* 22(2): 312-332.

Lybecker, Donna L., Mark K. McBeth, and James W. Stoutenborough. 2016. "Do We Understand What the Public Hears? Stakeholders' Preferred Communication Choices for Decision Makers when Discussing River Issues with the Public." *Review of Policy Research* 33(4): 376-392.

Kahan, Daniel M., Ellen Peters, Maggie Wittlin, Paul Slovic, Lisa Larrimore Ouellette, Donald Braman, and Gregory Mandel. 2012. "The Polarizing Impact of Science Literacy and Numeracy on Perceived Climate Change Risks." *Nature Climate Change* 2: 732–735.

Kahan, Daniel M. Hank Jenkins-Smith, and Donald Braman. 2011. "Cultural Cognition of Scientific Consensus." *Journal of Risk Research* 14: 1-28.

Kaplan, Sarah. 2020. "The Undeniable Link Between Weather Disasters and Climate Change." *The Washington Post*, October 22, 2020. https://www.washingtonpost.com/climate-solutions/2020/10/22/climate-curious-disasters-climate-change/ (accessed May 1, 2021).

Knüofer, Curd Benjamin. 2018. "Diverging Projections of Reality: Amplified Frame Competition via Distinct Modes of Journalistic Production," *Journalism Studies* 19(4): 594-611.

McBeth, Mark K and Donna L. Lybecker. 2018. "The Narrative Policy Framework, Agendas, and Sanctuary Cities: The Construction of a Public Problem." *Policy Studies Journal* 46(4): 868-893.

McBeth, Mark K., Donna L. Lybecker, James W. Stoutenborough, Katrina Running, and Sarah Davis. 2017. "Content Matters: Stakeholder Assessment of River Stories or River Science." *Public Policy and Administration* 32(3): 175-196.

McBeth, Mark K., Donna L. Lybecker, and James W. Stoutenborough. 2016. "Do Stakeholders Analyze their Audience: The Communication Switch and Stakeholder Personal versus Public Communication Choices" Policy Sciences 49(4): 421-444.

McBeth, Mark K., Donna L. Lybecker, and Maria A. Husmann. 2014. "The Narrative Policy Framework and the Practitioner: The Case of Recycling Policy." Chapter 3 (pp. 45-68) in *The Science of Stories: Applications of the Narrative Policy Framework in Public Policy Analysis*. Edited by Elizabeth A. Shanahan, Michael D. Jones, and Mark K. McBeth. New York: Palgrave-McMillian.

McBeth, Mark K., Donna L. Lybecker, and Kacee A. Garner. 2010. "The Story of Good Citizenship: Framing Public Policy in the Context of Duty-Based versus Engaged Citizenship." *Politics & Policy* 38(1): 1-23.

McBeth, Mark K. and Elizabeth A. Shanahan. 2004. "Public Opinion for Sale: The Role of Policy Marketers in Greater Yellowstone Policy Conflict." *Policy Sciences* 37(3): 319-338.

Meyer, Robinson. 2019. "Trump is not a Climate Change Denier, He's Worse." *The Atlantic* November 5. https://www.theatlantic.com/science/archive/2019/11/ideology-behind-donald-trumps-paris-withdrawal/601462/ (accessed August 23, 2020).

Najale, Maxine and Robert P. Jones. 2019. "American Democracy in Crisis: The Fate of Pluralism in a Divided Nation." PRRI December 7. https://www.prri.org/research/american-democracy-in-crisis-the-fate-of-pluralism-in-a-divided-nation/ (Accessed September 1, 2020).

Oxley, Douglas R., Arnold Vedlitz, and B. Dan Wood. 2014. "The Effect of Persuasive Messages on Policy Problem Recognition." *Policy Studies Journal 42*(2): 252-268.

Padian, Kevin Padian. 2018. "Narrative and 'Anti-narrative' in Science: How Scientists Tell Stories, and Don't, *Integrative and Comparative Biology* 58(6): 1224–1234, https://doi.org/10.1093/icb/icy038.

Page, Janis. T. and Margaret E. Duffy. 2009. "A Battle of Visions: Dueling Images of Morality in US Political Campaign TV Ads." *Communication, Culture & Critique 2*(1): 110-135.

Pew Research Center. 2020. "White Evangelicals See Trump as Fighting for their Beliefs, Though Many Have Mixed Feelings About His Personal Conduct." March 12, https://www.pewforum.org/2020/03/12/white-evangelicals-see-trump-as-fighting-for-their-beliefs-though-many-have-mixed-feelings-about-his-personal-conduct/ (accessed March 21, 2020).

Pew Research Center. 2014. "Political Polarization in the American Public." June 12. https://www.people-press.org/2014/06/12/political-polarization-in-the-american-public/ (accessed August 2, 2020).

Politico Magazine. 2018. "Do You Eat Republican Cheese? The Two Americas, A Snapshot in Brands." November/ December. https://www.politico.com/magazine/story/2018/11/02/brands-preferred-democrats-republicans-221912 (accessed March 20, 2020).

Putnam, Robert D. 2000. *Bowling Alone: The Collapse and Revival of American Community*. New York: Simon and Schuster.

Rahn, Wendy M. 1993. "The Role of Partisan Stereotypes in Information Processing about Political Candidates." *American Journal of Political Science 37(2)*: 472-496.

Rhidenour, Kayla. B., Ashley, Barrett, and Kate Blackburn. 2019. "Heroes or Health Victims?: Exploring how the Elite Media Frames Veterans on Veterans Day." *Health Communication 34*(4): 371-382.

Shanahan, Elizabeth A., Ann Marie Reinhold, Eric D. Raile, Geoffrey C. Poole, Richard C. Ready, Clemente Izurieta, Jamie McEvoy, Nicolas T. Bergmann, and Henry King. 2020. "Characters Matter: How Narratives Shape Affective Responses to Risk Communication." *PLOSOne* 14(1): https://journals.plos.org/plosone/article/file?type=printable&id=10.1371/journal.pone.0225968 (accessed February 1, 2021).

Shanahan, Elizabeth, Michael D. Jones, Mark K. McBeth, and Claudio Radaelli. 2018. "The Narrative Policy Framework" (Chapter 5, pp. 173-213) in *Theories of the Policy Process*, 4th edition (Chris M Weible and Paul A. Sabatier, eds). Boulder: Westview Press.

Stone, Deborah. 2012. *Policy Paradox: The Art of Political Decision Making*, 3rd edition. New York: WW Norton.

Taber, Charles S., and Martin Lodge. 2006. "Motivated Skepticism in the Evaluation of Political Beliefs." *American Journal of Political Science* 50(3): 755-769.

Trump, Donald. 2017. Remarks by President Trump on Deregulation. https://www.whitehouse.gov/briefings-statements/remarks-president-trump-deregulation/.

Weichert, Brandon J. 2019. "The Green New Deal is About Punishing Working-Class. Americans." The American Spectator, February 11. https://spectator.org/the-green-new-deal-is-about-punishing-working-class-americans/ (accessed April 16, 2020).

Vavreck, Lynn. 2017. "A Measure of Identity: Are You Wedded to Your Political Party?" January 31. https://www.nytimes.com/2017/01/31/upshot/are-you-married-to-your-party.html.

Zehner, Harry. 2018. "Opinion: It's Time for a New Climate Change Narrative." *The Daily Campus*, December 3. https://dailycampus.com/stories/2018/12/3/its-time-for-a-new-climate-change-narrative (accessed April 16, 2020).

CHAPTER APPENDIXES

Appendix A. Initial Biographies of the Two Narrators

Mechanic: Pat learned the mechanics trade from classes in high school and at the local community college in Georgia. He apprenticed for a number of years prior to buying his own garage.

Organic farmer: Chris earned a bachelor's degree in agricultural systems management from The Ohio State University. Upon graduation, Chris returned to his family's farm, taking over management and ultimately switching the production to be organic.

Appendix B. Conflicting Climate Change Narratives and Additional Narrator Information

Additional Biography for Each Narrator

Pat is a mechanic from Georgia. He considers himself and his family solid working class. He believes we all need to have a voice concerning what is important, thus he makes a point to be a part of discussions about the future through groups such as the Kiwanis. Pat's views are based on his personal experience as a mechanic from a mid-sized city in the southern United States.

Chris is an organic farmer from Ohio. He was a first-generation college student who worked his way through school in order to gain a better understanding of farm management. Seventeen years ago, Chris convinced his family to convert the 135-acre family farm, started by his great grandfather, to organics. He believed organic farming would be better for the land and the family living on the land and would allow for greater profits. Chris is connected to his community and is concerned about what the future may hold for family farms.

Anti-Climate Change Narrative

There was a time when laws passed by the US government aimed to benefit working people. However, today, rich globalists and their politician friends like to say they help working people with climate change policies. In reality, they are working against working people. Climate change promoters too often cast the blame for 'climate problems' on struggling working families. Elites view the working class as greedy polluters, but working people have to rely on petroleum and coal to take care of their families. The rich can ask us to drive electric cars, but only they can afford to do so. The United States would not be the first country to attempt to create a so-called "Green" economy. Just look at Spain. Spain tried and the results were economic ruin. According to economists, new climate change laws in Spain eliminated two jobs for every green job created. Plus, the green jobs were higher-skilled jobs filled by more-educated workers. The costs are always felt most by the already struggling working class.

Luckily, we have politicians who fight for coal miners, mechanics, farmers, and factory workers and want to end climate change policies. To protect hard-working citizens, we must ensure that wealthy climate change advocates do not continue to fool working people into believing that green jobs will help them. I oppose climate change laws that harm working people.

Pro-Climate Change Narrative

There was a time when both political parties supported environmental laws that helped working people. Working people knew the laws would protect them and their families from polluting

companies. Sadly, today, many people wrongly say climate change laws are going to harm working people. It seems companies and their politician friends use the fear of job loss to create opposition. Working people are hurt the most by climate change. Climate changes that we see could ruin the economy and jobs will move to cooler climates. I cannot afford to move my family to a cooler location. The current presidential administration released a study where they warned that climate change is harming the US economy. Digging into this, I learned that the 2017 droughts, wildfires, and hurricanes in the United States led to $300 billion of damage. And, the study says, it is the working people that are most harmed by this damage.

Luckily, we have politicians who fight for climate change laws to help working people. Using more renewable energy will create new jobs. Even today, the solar industry creates as many jobs as the fossil fuel industry. We need to work to ensure that companies and politicians do not continue to fool working people into believing that climate change laws are harmful to working people. I support climate change laws that help working-class people.

---

1 A Variance Inflation Factor (VIF) analysis (James, et al., 2017) of multi-collinearity showed only very slight bias in the model using the five independent variables. The average VIF for the congruent narrative treatment model was 1.14. In the incongruent narrative treatment model, the VIF average was 1.08.

CHAPTER 5: LOST IN TRANSLATION: NARRATIVE SALIENCE OF FEAR > HOPE IN PREVENTION OF COVID-19

Holly L. Peterson*, Louisiana State University
Chad Zanocco, Stanford University
Aaron Smith-Walter, University of Massachusetts Lowell

ABSTRACT

Using short, policy-image-like narratives, we explore the relationship between narrative agreement and narrative impacts in the case of COVID-19 in the US. Building upon previous research which identified attention narratives focusing on problems "stories of fear" and those focusing on solutions "stories of hope," we use a narrative survey experiment of the general public (n=1000) to test the salience of problem and solution narratives and if they impact agreement with Center for Disease Control (CDC) prevention guidelines. Our findings are 1) fear story agreement is partisan but hope story agreement is not 2) fear story is the more salient of the two, 3) narrative agreement for both fear and hope were related to CDC safety guideline agreement, but were partisan, and 4) exposure to neither narrative impacted likelihood to agree with the guidelines as compared to a control group. Our findings are consistent with previous work indicating a Democratic party preference for stories of fear, where Democrats were more likely to support policy action. While we find that agreement with our narratives and guidelines is related, neither narrative treatment successfully altered support for CDC guidelines, suggesting a potential limit for the influence of narratives to either change or reorder existing preferences in highly salient and partisan issue areas like COVID-19 and suggesting a need for more research into the dynamics of narrative attention.

*Corresponding author: hollypeterson@lsu.edu

To cite the chapter: Peterson, Holly L., Chad Zanocco, and Aaron Smith-Walter. 2022. "Lost in Translation: Narrative Salience of Fear>Hope in Prevention of COVID-19", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 116-137. doi.org/10.15788/npf5

INTRODUCTION

The COVID-19 pandemic is one of the most salient events of the 21st century. With almost 30 million reported cases of the virus and approximately 550,000 deaths in the United States alone in early 2021 (*New York Times*, 2021) and a broad patchwork of state, local, and federal policy responses (e.g., Xu & Basu, 2021; Kincaid & Leckrone, 2021), it is difficult to imagine how anyone could remain untouched by the pandemic. Most people in the United States are likely to have either had the disease (e.g., Angulo et al., 2021), know someone who has (Smith, 2021), observed disruptions to their daily routines and activities (e.g., Zanocco et al., 2021), and/or have experienced economic consequences from the pandemic (e.g., Horowitz et al., 2021).

Despite evidence that people are paying attention to the problem of coronavirus transmission (e.g., Jones, 2021) and its catastrophic impacts on public health and the world economy (Cutter & Summers, 2021), there is not agreement in the U.S. on the adoption of prevention measures as many people refuse to abide by health guidelines to reduce transmission (e.g., Yamamoto et al., 2021). Some feel that taking virus transmission precautions inhibits their freedom (e.g., Taylor & Asmundson, 2021). They feel they should not have to socially distance or wear a mask simply because they have been ordered to by public officials and public officials should not have the authority to direct their behavior in this way (e.g., Koplowitz, 2021; Sharp, 2020). For instance, in Alabama, Governor Kay Ivey initially indicated sympathy with this argument. Ivey, who has in the past avoided even hurricane evacuation mandates (Carson, 2020), said that people should practice safety measures by their own volition because it was the right thing to do to protect themselves andothers and to help the state's economy (Gore, 2020). However, much to Ivey's disappointment, her appeal to "personal responsibility" was not sufficient to motivate enough Alabamians to agree to undertake preventive measures. Ivey eventually did issue a stay-at-home order, the closing of public spaces where large groups congregated (Carson, 2020), and mandate mask wearing (Gore, 2020). Many other states implemented similar policies despite the unpopularity with the electorate (Mervosh et al., 2020). After failed appeals to personal responsibility, public officials were forced to act in the face of rising case numbers (e.g., Grossman et al., 2020).

Given the reality of this disconnect between public policy communication and public behavior (e.g., Gollust et al., 2020), we ask, can narratives help people to comply with simple measures like those recommended by the CDC to prevent transmission of disease? The Narrative Policy Framework (NPF) proposes a narrative lens for understanding the policymaking process. For the NPF, narratives, or stories with characters, matter because they can persuade people (Shanahan et al., 2018). This has important implications for public policymaking, including public opinion (e.g., Jones & Song, 2014) and voting intention (e.g., McMorris et al., 2018) as well as an individual's risk perceptions (e.g., Shanahan et al., 2019,;Guenther & Shanahan, 2020). But recent research also proposes narratives might function by shifting attention as opposed to persuading individuals (Peterson, 2018).

In the case of a highly salient topic like COVID-19, most people probably have established opinions about whether or not they agree with the CDC's guidance (e.g., Czeisler et al., 2020). Especially given the highly partisan nature of many topics and events in 2020 (e.g., Schaefer, 2020) and the role politics plays in framing the response to safety recommendations (e.g., Grossman et al., 2020); for example, former President Trump often understated the impact of

COVID-19 and did not adhere to safety guidelines (e.g., Bump, 2020). Given the degree of national, and often partisan focus, on the COVID-19 pandemic and subsequent safety guidelines, is it reasonable to think that narratives can impact people's agreement with safety guidelines? In this chapter, we explore these questions by testing the roles of narratives, narrative agreement (e.g., salience), and partisanship on agreement with CDC COVID-19 safety guidelines.

NARRATIVE ATTENTION

Narrative attention is a recent idea elaborated from the NPF by way of synthesis with the information processing and agenda-setting approach of Bryan D. Jones and Frank R. Baumgartner (e.g., Jones, 1994; Jones & Baumgartner, 2005; Baumgartner & Jones, 2010). The question of narrative attention simply asks the NPF to take its framework of thought and expectations about the existence and persuasive function of narratives and alter them to account for changes in theoretical expectations when it makes more sense to expect attention shifts as opposed to persuasion shifts, or perhaps even shift in both attention and persuasion (Peterson, 2018).

The Narrative Policy Framework (NPF)

The creators of the NPF identify a policy narrative as a character and policy referent and potentially many other elements and/or content (Shanahan et al., 2018). They conceptualize narratives as consisting of elements including characters, plot, setting, moral of the story, and other various kinds of content. Characters may include heroes (who help), villains (who hurt), and victims (who are harmed). Plot is the causal or temporal explanation that ties together the other narrative components. Setting refers to relevant contextual information. The moral of the story refers to the policy solution. According to Shanahan et al. (2018), narrative content includes expressions of beliefs (often identified or inferred from a theory or concept, like ideology) and potentially strategic information crafting (like emphasizing the negative traits of an opponent).

The NPF proposes three levels of analysis: micro, meso, and macro (Shanahan et al., 2018). The micro level of analysis focuses on how narratives impact individuals, encapsulated in the *homo narrans* model of individual cognition (Jones, McBeth and Shanahan 2014). The meso level of analysis explores narratives across and within groups, especially those working together for a policy-related outcome (i.e., coalitions) within issue- or geographic-specific subsystems, *agora narrans*. The macro-level of analysis is less developed but focuses on institutions and policy change (e.g., Shanahan et al., 2018)—*polis narrans*, perhaps. Each level of analysis has spurred a variety of general ideas about how narratives might work, and some tested hypotheses indicate emerging patterns of narrative dynamics (see Shanahan et al., 2018). Generally speaking, this framework and the ideas about how narrative dynamics work emerge from lessons from other policy process approaches, most notably the Advocacy Coalition Framework (see Shanahan et al., 2011).

Macro-Level Narrative Attention

Narrative attention has focused on the NPF macro level of analysis, specifically at US macropolitical institutions (i.e., legislative branch, executive branch, and federal court system).

This is because at the level of institutional analysis, persuasion is not an effective means for facilitating policy change since policymakers within these institutions are unlikely to alter their positions (Baumgartner and Jones 2010). Narrative attention, though, may be an effective means in the right circumstances: Baumgartner and Jones describe how policy images (i.e., succinct and popular beliefs about policy based on general feelings of support or opposition to the policy status quo) can "catch fire" and sweep through the public sphere, advancing upon macro-level policymakers in a demand for policy change (2010). This "fire" doesn't change minds but it does inspire attention that can generate new attention and may also alter the ordering of previous preferences (e.g., Jones, 1994, Jones & Baumgartner, 2005). However, this exclusion of persuasion at the macro level does not justify an exclusion of attention at the micro level. In fact, Jones and Baumgartner describe how attention shifts may sweep through the public sphere causing individuals to reorder priorities or become interested in new issues as well (2005; Jones, 1994; see Peterson & Jones, 2016), indicating an active life for narrative policy attention within individuals (i.e., NPF micro level) as well as institutions (i.e., NPF macro level). If this is the case, then public "narrative salience," or the degree to which people agree with particular narrative policy images (i.e., policy images with narrative form), may have important policy process dynamics, including supporting protective behavior in emergency situations, such as the COVID-19 pandemic.

Micro-Level Narrative Attention

To date, no empirical research has been conducted that explores narrative attention at the micro level of analysis. In a few "think" pieces exploring the integration of policy process theory ideas, Peterson (2018) and Peterson and Jones (2016), based on the work of Jones (1994) and Jones and Baumgartner (2005), posit that narrative attention shifts are likely important for how individuals think about public policy and how they are influenced by policy narratives. Following the work of Jones (1994), Peterson (2018) argues that similar to the effect within institutions, policy narratives may influence individuals by gaining the attention of previously apathetic persons and/or inspiring people who are already interested in a policy problem to reorder their preferences based on a policy narrative.

This micro-level attention explanation is similar to the causal pathway identified by Peterson (2018, 2019) for attention to influence policy change in macro institutions. Of course, macro institutions consist of people; in fact, they are "more human than human" (Yuenger et al., 1995) in that they amplify characteristics of human information processing (Jones, 1994). However, an important distinction exists in that macro institutions are often processing highly salient policy images—those images that have gained enough agreement, and therefore agenda status, in the public and/or subsystems that they demand macro-level policymaking. Additionally, and more importantly, less stability in preferences is expected at the micro level of analysis than at the macro level (e.g., Baumgartner & Jones, 2010). In emergency situations like the COVID-19 pandemic, it may be important to impact people's attention and preferences in a way that facilitates individual and collective safety. Drawing on recent lessons about partisanship and macro-level narrative images, we ask if these narrative images, that reflect policy images (e.g., Peterson, 2019), are capable of impacting people in the highly salient case of COVID-19. Such narratives communicate a general orientation to a public policy issue, like COVID-19, and potentially inspire

agreement with activity to address it, such as CDC safety guidelines, by focusing the attention of the public, or perhaps, even persuading them.

Partisan Stories of Hope & Fear

Previous narrative attention research identified two story types that emerged from narrative content analysis of macro-environmental narratives in the U.S.: those focused on problems and those focused on solutions (Peterson, 2019). In analysis of environmental policy narratives embedded within State of the Union speeches, Peterson found an increased likelihood for Republicans to deliver environmental narratives focusing on solutions and Democrats to deliver environmental narratives focusing on problems (2019). This finding follows the rationale put forth by Jones and Baumgartner (2015), who find that governments feed on policy problems—growing to address problems they are presented with. Republicans, not wanting to increase government response and spending on environmental problems, emphasize the fixes to the problem, and Democrats, willing to invest in more comprehensive and potentially expensive responses to the problem, emphasize the problems to be addressed (e.g., Greenburg & Jonas, 2003). Additionally, this explanation dovetails with the findings of Jost et al. (2003), who investigate conservatism as a psychological belief system, and find that conservatives generally fear large policy changes, and hence, avoid policy pathways that promote new and large-scale actions. This may be especially relevant regarding pathways that challenge the status quo in a way that could lead to greater investment in areas they would like to keep status quo (e.g., Baumgartner & Jones, 2010; Greenburg & Jonas, 2003).

This characterization also tracks with contemporary partisan public messaging regarding the COVID-19 pandemic (e.g., Gollust et al., 2020). At the end of April 2020, as the caseload in the United States was reaching record-highs, then President Trump, a Republican, said "but a lot of movement and a lot of progress has been made in a vaccine. But I think what happens is it's going to go away. This is going to go away. And whether it comes back in a modified form in the fall, we'll be able to handle it" (Bump, 2020), emphasizing the solution, and down-playing a need for further efforts. Alternatively, President Biden, a Democrat, adopted a substantially different tone when he said on January 20th, 2021, as the caseloads were finally dropping: "We are in a race against time, and absent additional government assistance, the economic and public health crises could worsen in the months ahead; schools will not be able to safely reopen; and vaccinations will remain far too slow" (White House, 2021), emphasizing the problem of the pandemic and the need for action to address it. Certainly, partisanship seems to matter a lot for U.S. COVID-19 policy, even more than it does for other countries (Mordecai & Connaughton, 2020) even when there is bipartisan recognition of a problem (Cochrane, 2021).

Although there was an initial bipartisan push to support COVID-19 legislation early in 2020 (Cochrane, 2020), by winter it was clear that much like the issue of environmental policy, Democrats supported more government action and spending than did Republicans (Peterson, 2020). This partisan split regarding COVID-19 policy was reflected in the public as well (e.g., Grossman et al., 2021), with conservatives less likely to see COVID-19 as a problem (Nowlan & Zane, 2020), to practice recommended transmission prevention procedures (Cankandar et al., 2020) including social distancing (Wu & Huber, 2021), and more likely to share misinformation about transmission prevention guidelines (Havey, 2020). Partisan avoidance of social distancing guidelines has been linked to worse health outcomes (e.g., Gollwitzer et al., 2020). However,

despite conservative skepticism and reluctance toward COVID-19 safety policies, they do remain likely to agree that precautions are effective (Cankandar et al., 2020), indicating the great salience of this policy problem and suggesting a pathway for narratives to impact perceptions about transmission guidelines.

Based upon this discussion, we develop the following hypotheses regarding stories of hope and fear, narrative salience, and agreement with CDC COVID-19 safety guidelines:

H1) Stories of fear are more salient for Democrats

Since Democratic presidential administrations are more likely to tell stories of fear in the case of environmental policy (Peterson, 2019), and Democrats may prefer a relatively larger policy response to COVID-19 as they do regarding environmental issues (Peterson, 2020), and stories of fear may infer a greater policy response (e.g., Baumgartner & Jones, 2015), and public partisans are thought to follow elite policy thinking about COVID-19 guidelines (Grossman et al., 2020), we expect that Democrats will be more likely to agree with stories of fear than Republicans.

H2) Stories of hope are more salient for Republicans

Since Republican presidential administrations are more likely to tell stories of hope in the case of environmental policy (Peterson, 2019), and Republicans may prefer a relatively smaller policy response to COVID-19 as they do regarding environmental issues (Peterson, 2020), and stories of hope may infer a smaller policy response (e.g., Baumgartner & Jones, 2015), and public partisans are thought to follow elite policy thinking about COVID-19 guidelines (Grossman et al., 2020), we expect that Republicans will be more likely to agree with stories of hope than Democrats.

H3) Stories of Fear will be more salient than Stories of Hope

Since the problem of COVID-19 is potentially the most expansive policy problem in recent times, devastating US public health and the economy, impacting virtually all Americans, and costing an estimated 16 trillion dollars in the United States alone (Cuttler & Summers, 2020), the scope of the issue is so large that we expect that comparatively more people will agree with stories of fear, which emphasize the problem and infer the need for more intensive policymaking (Peterson, 2019) than stories of hope, which emphasize the solution and infer a smaller policy response (e.g., Baumgartner & Jones, 2015).

H4) Stories of fear salience will be related to higher levels of agreement with CDC guidelines

Since we expect stories of fear to be more salient generally (H3), and for these stories to be salient with individuals who prefer a more robust response to the pandemic (H2), we expect that stories of fear will be associated with relatively higher agreement with CDC guidelines than stories of hope.

H5) Stories of hope salience will be related to lower levels of agreement with CDC guidelines

Since we expect stories of hope to be generally less salient (H3), and for these stories to be salient with individuals who prefer a less robust response to the pandemic (H1), we expect stories of hope to be associated with lower levels of agreement with the CDC guidelines than stories of fear.

H6) Narratives will increase agreement with CDC guidelines

Since narratives are thought to have the power to persuade (Jones & McBeth, 2010), reorder, and/or engage policy preferences (Peterson, 2019), we expect that respondents

who read narratives will be more likely to agree with the CDC guidelines than those who do not.

H7) Stories of fear will impact agreement with CDC guidelines more than stories of hope

If stories of fear are more salient as compared to stories of hope (H3) and narratives impact agreement with CDC guidelines (H5), we expect that stories of fear will be more impactful, since they represent a greater call for change than stories of hope (Peterson, 2019).

To test these hypotheses, we conduct a narrative experiment with corresponding survey data, experimental design, and analysis procedure described in the following section.

DATA AND METHODS

Data

We apply data generated from an internet survey of the US public (n=1000) administered November 17 – 20, 2020 by YouGov, a survey research firm, to a sample of respondents 18 years old or older. Respondents were selected via stratified sampling by gender, age, race, education, and region to match target population statistics in the 2018 American Community Survey. It is important to note that this survey used purposive internet-based sampling methods and therefore lacks the representativeness of a probability-based sample. However, similar surveys using internet-based samples have been applied in previous NPF research as it allows for testing within and across narrative treatment effects on samples of the same approximate size and composition in post-test only control group experimental designs (Zanocco et al., 2018). Question items applied in this study are part of a larger survey conducted by the University of Massachusetts Lowell that asked the US public about a variety of topics related to the COVID-19 pandemic, and we provide a detailed description of the measures applied in our analysis in Table 1. We next describe the implementation of the narrative experiment within the survey design.

Narrative Experiment Design

In this research, we employ a narrative experimental treatment design in an online survey setting. Similar to prior NPF research (e.g., Zanocco et al., 2018), we utilized both narrative treatment groups and a control group in the design of the experiment. Unlike previous NPF research, our narrative treatments are much shorter—one sentence long—compared to other NPF narrative treatments that are a paragraph of text or more. Similar to previous experimental surveys, these statements conform to the definition utilized within NPF research because they do include both a character and policy referent (e.g., Shanahan et al., 2018); however, these narratives were specifically developed to reflect the story of hope and fear narratives policy images from previous work, which captured generalized policy images of salient macro-level issues (Peterson, 2019). For this reason, the narratives employed focus primarily on either problems or solutions, as opposed to a variety of other elements and content that may be explored with NPF narratives (e.g., Pierce et al., 2014; Shanahan et al., 2018). To administer the different treatment arms, the survey sample was sorted into three groups each comprising approximately one-third of the total sample: fear narrative treatment group (n=341), hope narrative treatment group (n=340), and a control group that did not receive a narrative treatment (n=319). The fear and hope narrative treatment

groups each received a narrative in the form of a question prompt, displayed below, while the control group did not receive a question prompt. Respondents in the narrative treatment groups were asked to indicate their agreement or disagreement with the following narratives, with response categories situated on a scale from 1= "Strongly Disagree" to 6= "Strongly Agree."

Fear treatment narrative: "The COVID-19 pandemic is a major problem that has hurt many people."

Hope treatment narrative: "Working together, government officials, medical professionals, and community members will strengthen our economy and public health in response to the COVID-19 pandemic."

In the next section of the survey, all respondents, including the control group, were then asked the same question about the importance of following nationally established social distancing guidelines for reducing the spread of COVID-19. Respondents indicated the level of importance of following the guidelines on a scale[9] from 1= "Extremely unimportant" to 7= "Extremely important." See below for this guidance text:

To reduce the transmission of COVID-19, the CDC recommends that Americans:

- Avoid close contact with people who are sick, even inside your home. If possible, maintain 6 feet between the person who is sick and other household members.
- Put distance between yourself and other people outside of your home.
- Remember that some people without symptoms may be able to spread the virus.
- Stay at least 6 feet (about 2 arms' length) from other people.
- Do not gather in groups.
- Stay out of crowded places and avoid mass gatherings.
- Keeping distance from others is especially important for people who are at higher risk of getting very sick.

We then used responses to the question on COVID-19 guidance importance to form our main outcome measure. We applied elements of this survey treatment/control design, survey responses to these narrative questions and outcome measures, and responses to the sociodemographic questions to analyze the effect of COVID-19 narrative elements described in the next section.

[9] The original measure was presented on a scale from 1=" Extremely important" to 7="Extremely unimportant" which we have recoded for ease in interpretability.

Table 1. Summary statistics for all measures included in analytical modeling

Variable name	Description	Summary statistics
Narrative measures		
Hope narrative agreement	Agreement with the hope narrative on a scale from 1= "Strongly disagree" to 6= "Strong agree"	Mean=4.17 Std. dev.=1.75
Fear narrative agreement	Agreement with the fear narrative on a scale from 1= "Strongly disagree" to 6= "Strong agree"	Mean=4.95 Std. dev.=1.50
Outcome measure		
COVID-19 guidance importance	Importance of COVID-19 guidance on a scale from 1= "Extremely unimportant" to 7= "Extremely important"	Mean=5.77 Std. dev.=1.72
Sociodemographic characteristics		
Age	Age of respondent in years	Average = 49 years old Std. dev.=18.5
Male (vs. other)	Gender of the respondent	48.9% male
White (vs. nonwhite)	Race/ethnicity of the respondent	69.8% white only
Income	Household income of the respondent on a scale from 1= "Less than $10,000" to 16= "500,000 or more"	Median income is 6= "$50,000 - $59,999"

Democrat (vs. Independent/Other)	Democratic political affiliation of the respondent	35.4% Democrat
Republican (vs. Independent/Other)	Republican political affiliation of the respondent	29.7% Republican

ANALYTICAL APPROACH

In our analysis, we assess interrelated narrative components by leveraging our survey data and study design. Using ordinary least squares regression, we (1) examine factors related to narrative salience (i.e., H1, H2, and H3), (2) consider the relationship between narrative salience and COVID-19 guidance importance (i.e., H4 and H5), and (3) test narrative treatment effects on COVID-19 guidance importance by applying treatment status (treatment vs. control) (i.e., H6 and H7). As independent variables in all of our regression models, we include the age of the respondent, gender (male vs. all other), white (vs. nonwhite), income, and Democrat (vs. Independent/other), and Republican (vs. Independent/other). Summary statistics for these measures can be found in Table 1.

For testing narrative agreement, we use the response to the narrative-based question prompt, which asks respondents to rate their level of agreement with the narrative to indicate salience as a dependent variable. We then test narrative salience by running regressions on narrative group subsets with sociodemographic measures as independent variables. Next, to test if there is a difference in narrative salience across narrative treatment groups, we pool both narrative groups and use agreement with the narrative statement as a dependent variable, and as independent variables include an indicator for hope vs. fear narrative groups as well as sociodemographics. Then, we consider how the effect of narrative agreement influences COVID-19 guidance importance. To do so, we model COVID-19 guidance importance as a dependent variable and narrative agreement and sociodemographics as independent variables. Finally, we test for narrative treatment effects by again modeling COVID-19 guidance importance as a dependent variable but running analysis on a pooled sample containing a treatment group and control group. We then include an indicator for treatment vs. control as an independent variable alongside sociodemographic controls to test for narrative treatment effects.

FINDINGS

We first consider the factors related to narrative treatment agreement (Table 2). For those sample respondents that received the fear narrative, we find that males ($b = -0.587$; $p < 0.01$) and Republicans ($b = -0.467$; $p < 0.05$) are less likely to agree with this narrative, while Democrats are more likely ($b = 0.504$; $p < 0.05$) (Model A1). However, for the hope narrative, we find no relationship with sociodemographics (Model A2). Finally, when identifying which narrative has a more comparative agreement, we find that after controlling for sociodemographics, the hope narrative is less salient than the fear narrative (hope narrative vs. fear narrative); $b = -0.766$; $p < 0.001$) (Model A3).

Table 2. Modeling narrative agreement

Dependent variable: Narrative agreement	Model A1 Sample: Fear narrative group		Model A2 Sample: Hope narrative group		Model A3: Sample: Hope & Fear narrative groups	
	Coef. Est.	p-value	Coef. Est.	p-value	Coef. Est.	p-value
Age	-0.002	0.673	0.007	0.234	0.003	0.428
Male (vs. other)	-0.587**	0.001	-0.121	0.557	-0.346*	0.010
White (vs. nonwhite)	-0.066	0.731	-0.116	0.621	-0.101	0.502
Income (scale)	0.11	0.633	-0.014	0.648	-0.002	0.909
Republican (vs. other/independent)	-0.467*	0.025	0.9	0.731	-0.192	0.248
Democrat (vs. other/independent)	0.504*	0.012	0.406	0.106	0.437**	0.006
Hope narrative (vs. fear narrative)					-0.766***	<0.001
Constant	5.298***	<0.001	3.92***	<0.001	4.982***	<0.001
R-squared	0.115		0.017		0.090	
Analytical sample size	303		304		607	

Significance levels: * p < 0.05; ** p < 0.01; ***p < 0.001

Our next set of analyses explore the relationship between narrative agreement and COVID-19 guidance importance. For the fear narrative group, we find that males and Republicans are less likely to report that COVID-19 guidance is important; however, the factor with the strongest effect is an agreement with the fear narrative (b = 0.446; p < 0.001) (Model B1). A similar pattern emerges for the hope narrative group, where agreement with the hope narrative is strongly related to COVID-19 guidance importance (b = 0.367; p < 0.001) (Model B2), while males are less likely to find COVID-19 guidance important, with whites and Democrats being more likely to find this guidance important.

Table 3. Modeling the effect of narrative agreement on COVID-19 guidance importance

Dependent variable: COVID-19 guidance importance	Model B1 Sample: Fear narrative group		Model B2 Sample: Hope narrative group	
	Coef. Est.	p-value	Coef. Est.	p-value
Age	-0.002	0.739	-0.003	0.515
Male (vs. other)	-0.384*	0.027	-0.451*	0.012
White (vs. nonwhite)	-0.107	0.575	0.482*	0.018
Income (scale)	-0.032	0.178	0	0.986
Republican (vs. other/independent)	-0.513*	0.015	-0.366	0.107
Democrat (vs. other/independent)	0.134	0.508	0.755**	0.001
Fear narrative agreement	0.446***	<0.001		
Hope narrative agreement			0.367***	<0.001
Constant	3.94***	<0.001	4.098***	<0.001
R-squared	0.267		0.253	
Analytical sample size	303		304	

Significance levels: *p < 0.05; **p < 0.01; ***p < 0.001

We then test whether there is a treatment effect associated with receiving a narrative treatment by comparing respondents from the two treatment groups against the control group (Table 4). For both the fear and hope treatments, we do not observe a narrative treatment effect (Model C1 and C2). However, we do observe stable effects related to sociodemographics across these specifications, with males and Republicans being less likely to find COVID-19 guidance important while Democrats were more likely to find this guidance important.

Table 4. Modeling the effect of narrative treatments on COVID-19 guidance importance

Dependent variable: COVID-19 guidance importance	Model C1: Sample: Fear narrative group & Control group		Model C2: Sample: Hope narrative group & Control group	
	Coef. Est.	p-value	Coef. Est.	p-value
Age	-0.002	0.599	-0.002	0.596
Male (vs. other)	-0.421**	0.002	-0.344*	0.014
White (vs. nonwhite)	0.047	0.764	0.35*	0.027
Income (scale)	0.028	0.151	0.008	0.703
Republican (vs. other/independent)	-0.64***	<0.001	-0.458**	0.009
Democrat (vs. other/independent)	0.437**	0.007	0.697***	<0.001
Fear narrative group (vs. control group)	0.144	0.282		
Hope narrative group (vs. control group)			0.013	0.926
Constant	5.893***	<0.001	5.624***	<0.001
R-squared	0.088		0.088	
Analytical sample size	593		595	

Significance levels: *p < 0.05; **p < 0.01; ***p <0.001

DISCUSSION

Our analyses supported several of our hypotheses about narrative salience, but none of those about narrative impacts: Hypothesis H1, H3, H4, and H5 were supported, but not H2, H6, or H7. We found that stories of fear were more salient for Democrats as compared to Republicans (H1) and were also more salient overall as compared to stories of hope (H3), where partisanship remained a significant factor, as expected. We also found that the narrative salience of fear and hope stories was significantly related to the agreement with CDC safety guidelines for social distancing (H4 and H5).

Partisan & Gendered Salience

Our results indicate an important role for partisanship regarding narrative policy images. These findings align with our expectations that Democrats will agree more with stories that imply greater policymaking and would support a greater policy response compared to Republicans. We did not find support for our expectation that Republicans would agree more with stories that inferred a more restrained policy response (i.e., stories of hope, H2), but we did find evidence that Republicans agreed less with the story of fear. This finding further supports our expectation that the problem-focused narratives appeal to Democrats, in this situation where they may prefer increased policymaking, but also points to an unexpected Republican dynamic.

Since Republicans are less likely to agree with the problem-focused story, are not responsive to the solution-focused story, but overall do agree with the CDC guidelines, perhaps they simply distrust political narratives about science. Given the increased politicization of the Republican party under former President Trump, including sometimes ridiculous and outlandish rhetoric, the American public has likely become familiar with highly politicized policy narratives (e.g., Smith, 2020). In the context of partisan policy narratives, American trust for politicians is at a near all-time low, but trust for scientists remains high (Funk et al., 2020), especially regarding COVID-19 (Kreps & Kriner, 2020). Perhaps Republicans, accustomed to Trump's rhetoric style and a highly partisan policymaking environment (e.g., Pew, 2019), see narratives as vehicles for value-based as opposed to science-based information and therefore distrust this method of communication for science or emergency information. Perhaps political distrust of narratives means they are more effective as reminders of previously held ideas in this context than movers of policy preferences. Indeed, one computational study estimated that Trump's "narrative control" peaked in 2017, as he focused on attacking Hilary Clinton and the status quo, but then dwindled to little by 2020, as COVID-19 rose as a national issue of concern (Dodds et al., 2021). In this example, Trump was more effective when the topic was more about politics than public health.

This notion may contradict previous NPF work arguing that narratives are always important for communicating issues, including controversial issues, like climate change (e.g., Jones, 2014; Jones & Peterson, 2016). However, with the rapid changes American politics have been experiencing in the past 20 years, perhaps some of the public suffers from a "narrative fatigue," feeling put-off from being overly-narratively-communicated to. Narrative fatigue could function similar to the boomerang effect in the framing literature, when respondents double down on their previous perceptions following a framing treatment due to suspicion of manipulation (De Vries, 2016). Future research should explore the dynamics of the changing narrative nature of the Republican party and the possibility of narrative fatigue in the public.

While gender emerged as an important factor in this analysis, we did not provide expectations for the role of gender. Gender has been identified as an important factor in determining the distribution of burdens in the COVID-19 pandemic (e.g., Raile et al., 2020). Gender has been identified as a determinant of policy preferences regarding climate change and previous NPF work has addressed its role thusly (Jones & Peterson, 2016); however, to date, there is limited work within the NPF to address the role of gender and narrative salience or impacts. The exposition of gender within the policy process literature itself is sparse. This suggests that future research should more directly investigate the role of gender in the NPF.

The finding regarding a gendered and partisan agreement with stories of fear could also potentially be useful when communicating to audiences about risk. Focusing on problems may be useful to those who agree that a response is warranted, and to non-men specifically, but could be problematic for those who do not think a response is warranted, and to men. This strategy, the story of fear, may resonate with the policy image in the minds of some individuals and ease communication and increase attention, but put up barriers for others. For those who think the issue warrants less of a response, in this case, Republicans and men, focusing on problems does not resonate and may be off-putting to them. Future research in risk may want to consider the influences of a problem- or solution-focus when communicating emergency preparedness or response information to specific audiences.

Agreement with Safety Guidelines

The narrative agreement for both problem and solution narratives were linked to an agreement with CDC guidelines, as expected. Although agreement with both narratives was linked to an agreement with the guidelines, and both parties reported high levels of agreement to guidelines, in both cases, the relationship was somewhat mitigated by partisanship for Republicans—they were less likely to agree with the guidelines. However, the existence of this relationship across both narrative types, when partisanship was not a significant predictor of agreement with the story of hope, indicates partisanship's persistent relationship to agreement with CDC guidelines. This relationship overshadows the role of narratives in our analysis and is prominently evidenced in our final models, which predict narrative impacts on agreement with CDC guidelines.

We did not find support that narratives influence agreement with social distancing guidelines (H6), or relatedly, that stories of fear influenced agreement with CDC guidelines more than stories of hope (H7). Since the narrative treatment had no impact on agreement with the CDC guidelines, we were unable to test H7, which would have compared the effectiveness of the two story types. However, we did find evidence that partisanship and gender did predict agreement with the guidelines in each of the narrative tests. We see more evidence of these relationships than in other analyses, because every partisan measure is significant in these models, suggesting a robust relationship to our dependent variable. While these measures all align with our primary rationale that Democrats are more likely to support the guidelines than Republicans, they also support observations of the politicization of the CDC through the pandemic (Aatresh, 2020). In both the fear and hope treatments, Democrats were more likely to support the guidelines, and Republicans were less likely to support the guidelines. This relationship may be too great for narratives to matter where they change minds or focus attention. Partisanship and gender are the consistent findings in these analyses, overriding even the salient story of fear. Given the highly salient and polarized nature of this topic and the CDC itself, narratives may have been more influential on a different dependent variable.

Finally, this analysis employed attention narratives, those that pointed to policy images as conceptualized in Peterson 2018, 2019, and In Press. It is possible that these short narratives did not provide ample length to engage readers in narrative transportation (see Shanahan et al., 2019), which may have been more effective in persuading individuals or shifting their attention than simple stories, which may not allow space for respondents to have a robust emotional response.

Additionally, since our goal was to discern the effects of story types instead of specific characters or other narrative elements within narratives, our narratives were not as comparable to each other as the longer form narratives used in previous NPF experimental designs, which may complicate the comparison of these findings with previous NPF experimental surveys. Future NPF research should continue to explore other narrative constructions that may be linked to persuasion or preference change. However, despite the many NPF cases to date (see Shanahan et al., 2018), few identify a narrative treatment effect (e.g., McMorris et al., 2018; Zanocco et al., 2018), suggesting the ability of exposure to a single narrative may change minds may be limited, and narratives may be most useful in influencing the feelings or behaviors of those who already agree, or disagree, with them.

This research contributes to the NPF by testing novel story types (i.e., fear and hope), short attention-based narratives, and exploring the role of narrative saliency in a broadly impactful case with relevance across the globe. Our findings expand and point to several largely untapped veins of NPF exploration: narrative attention, narrative salience, and narrative fatigue. These concepts challenge the supremacy of persuasion as a focus of NPF study and ask what other narrative dynamics might have important implications in the policy process. Future research should explore demographic creation and reception of narratives, especially among gender, race, and wealth. As people's lived experiences vary so greatly, so too may the narrative perspectives they inhabit and resonate with. Traditionally, NPF research has relied heavily on academics to choose what narratives likely matter for whom. Future research should expand upon the efforts of Shanahan et al. (2019) and ask policy targets what matters for them. Additionally, in the case of highly salient policy areas that have already been inundated with narrative-based information delivery and communication (e.g., COVID-19), future causal NPF research should innovate new research designs and narrative operationalizations that move beyond survey-based experiments.

CONCLUSION

Our research tested the role of short, policy-image-like-narratives on agreement with CDC social distancing guidelines regarding the COVID-19 pandemic. The narratives were crafted based upon recent findings of macro-level narratives in the case of environmental policy. Environmental policy is similarly related to COVID-19 in that it has predictable partisan policy beliefs. Our hypotheses emerge from this comparison and we test three general relationships with seven specific hypotheses. First, we identify the determinants of narrative agreement with our narratives, the stories of fear and hope. Second, we test the impact of narrative agreement with the CDC guideline agreement. Third, we test the impact of the narratives themselves.

Our findings indicate that there may be no room for narrative to maneuver in the highly salient and partisan (and gendered) case of CDC COVID-19 guidelines. Partisanship and gender are the persistent and robust factors in our analysis. We find that despite the existence of an agreement with our narratives, and the relationship of that agreement to the agreement with COVID-19 safety guidelines, the narratives themselves do not impact agreement with the guidelines, only partisanship and gender do.

The narrative effect appears to be lost in translation—with partisan beliefs and gender overwhelming our stories emphasizing problems and solutions. We believe this indicates three

main future considerations for the NPF, and especially for narrative risk studies moving forward: the important and under-researched role of gender in narrative studies, the relationship between narrative and partisanship, and the persuasive and attention impacts of narratives. Exploring the latter provides perhaps has the most potential for yielding interesting narrative insights, with a greater understanding of the attention impacts presenting a way to circumvent these translation barriers when they are observed. In this respect, our research suggests that NPF scholars should pay *more attention* to the impacts of narrative attention in highly salient and potentially contentious policy environments.

Acknowledgments: The authors would like to thank the Center for Public Opinion at the University of Massachusetts Lowell for their generous support in conducting this research.

References

Aatresh, A. 2020. Science, society, and Security: Politicization in the age of COVID-19. Retrieved March 30, 2021, from https://harvardpolitics.com/science-society-security/

Ang, Joshua Ping, Fang Dong, and Jason Patalinghug. 2021. "COVID-19: Effectiveness of Socioeconomic Factors in Containing the Spread and Mortality." *International Review of Applied Economics* 35 (2): 164–87. https://doi.org/10.1080/02692171.2020.1853078.

Angulo, Frederick J., Lyn Finelli, and David L. Swerdlow. 2021. "Estimation of US SARS-CoV-2 Infections, Symptomatic Infections, Hospitalizations, and Deaths Using Seroprevalence Surveys." *JAMA Network Open* 4 (1): e2033706. https://doi.org/10.1001/jamanetworkopen.2020.33706.

Baumgartner, Frank R., and Bryan D. Jones. 2010. *Agendas and Instability in American Politics*. University of Chicago Press.

———. 2015. *The Politics of Information: Problem Definition and the Course of Public Policy in America*. University of Chicago Press.

Bump, Philip. n.d. "Analysis | Trump Leans into His '180,000 Deaths Is a Statistic' Reelection Strategy." *Washington Post*. Accessed March 27, 2021. https://www.washingtonpost.com/politics/2020/08/31/trump-leans-into-his-180000-deaths-is-statistic-reelection-strategy/.

Cakanlar, Aylin, Remi Trudel, and Katherine White. 2020. "Political Ideology and the Perceived Impact of Coronavirus Prevention Behaviors for the Self and Others." *The Association of Consumer Research* Early View. https://doi.org/10.1086/711834.

Carson, Mike. 2020. "Kay Ivey Seeks Pre-Landfall FEMA Declaration on Sally." Al. September 14, 2020. https://www.al.com/news/2020/09/gov-kay-ivey-issues-state-of-emergency-for-tropical-storm-sally.html.

Cason, Mike. 2020. "Gov. Kay Ivey Issues Stay-at-Home Order Effective Saturday." *Al*, April 3, 2020, sec. News. https://www.al.com/news/2020/04/gov-kay-ivey-to-give-update-on-coronavirus-response.html.

Cochrane, Emily. 2020. "House Passes $8.3 Billion Emergency Coronavirus Response Bill." *The New York Times*, March 4, 2020, sec. U.S. https://www.nytimes.com/2020/03/04/us/politics/coronavirus-emergency-aid-congress.html.

———. 2021. "'From Crisis to Crisis': The Moments That Defined a Historic Congress." *The New York Times*, January 2, 2021, sec. U.S. https://www.nytimes.com/2021/01/02/us/politics/congress-impeachment-coronavirus-trump.html.

Cutler, David M., and Lawrence H. Summers. 2020. "The COVID-19 Pandemic and the $16 Trillion Virus." *JAMA* 324 (15): 1495. https://doi.org/10.1001/jama.2020.19759.

Czeisler, Mark É. 2020. "Public Attitudes, Behaviors, and Beliefs Related to COVID-19, Stay-at-Home Orders, Nonessential Business Closures, and Public Health Guidance — United States, New York City, and Los Angeles, May 5–12, 2020." *MMWR. Morbidity and Mortality Weekly Report* 69. https://doi.org/10.15585/mmwr.mm6924e1.

De Vries, G. 2016. How positive framing may fuel opposition to low-carbon technologies. *Journal of Language and Social Psychology, 36*(1), 28-44. doi:10.1177/0261927x16663590

Dodds, Peter Sheridan, Joshua R. Minot, Michael V. Arnold, Thayer Alshaabi, Jane Lydia Adams, Andrew J. Reagan, and Christopher M. Danforth. 2020. "Computational Timeline Reconstruction of the Stories Surrounding Trump: Story Turbulence, Narrative Control, and Collective Chronopathy." *ArXiv Preprint ArXiv:2008.07301*.

Funk, C., Kennedy, B., & Johnson, C. (2020, December 17). Trust in medical scientists has grown in U.S., but mainly Among Democrats. Retrieved March 29, 2021, from https://www.pewresearch.org/science/2020/05/21/trust-in-medical-scientists-has-grown-in-u-s-but-mainly-among-democrats/

Gollust, Sarah E., Rebekah H. Nagler, and Erika Franklin Fowler. 2020. "The Emergence of COVID-19 in the US: A Public Health and Political Communication Crisis." *Journal of Health Politics, Policy and Law* 45 (6): 967–81. https://doi.org/10.1215/03616878-8641506.

Gollwitzer, Anton, Cameron Martel, William J. Brady, Philip Pärnamets, Isaac G. Freedman, Eric D. Knowles, and Jay J. Van Bavel. 2020. "Partisan Differences in Physical Distancing Are Linked to Health Outcomes during the COVID-19 Pandemic." *Nature Human Behaviour* 4 (11): 1186–97. https://doi.org/10.1038/s41562-020-00977-7.

Gore, Leada. 2020a. "No Mandated Masks Statewide; Gov. Ivey 'Reserves Right to Reverse Course' Back to Restrictions." *Al*, June 30, 2020, sec. News. https://www.al.com/news/2020/06/no-mandated-masks-statewide-gov-ivey-reserves-right-to-reverse-course-back-to-restrictions.html.

———. 2020b. "Gov. Ivey Issues Statewide Mask Order." Al. July 15, 2020. https://www.al.com/news/2020/07/gov-ivey-covid-update-today-press-conference-planned-for-11-am-watch-live.html.

Greenberg, Jeff, and Eva Jonas. 2003. "Psychological Motives and Political Orientation--The Left, the Right, and the Rigid: Comment on Jost et al. (2003)." *Psychological Bulletin* 129 (3): 376–82. https://doi.org/10.1037/0033-2909.129.3.376.

Grossman, Guy, Soojong Kim, Jonah M. Rexer, and Harsha Thirumurthy. 2020. "Political Partisanship Influences Behavioral Responses to Governors' Recommendations for COVID-19 Prevention in the United States." *Proceedings of the National Academy of Sciences* 117 (39): 24144–53. https://doi.org/10.1073/pnas.2007835117.

Guenther, Sara K., and Elizabeth A. Shanahan. 2020. "Communicating Risk in Human-Wildlife Interactions: How Stories and Images Move Minds." *PLoS One* 15 (12): e0244440.

Havey, Nicholas Francis. 2020. "Partisan Public Health: How Does Political Ideology Influence Support for COVID-19 Related Misinformation?" *Journal of Computational Social Science* 3 (2): 319–42. https://doi.org/10.1007/s42001-020-00089-2.

Horowitz, Juliana Menasce, Anna Brown, and Rachel Minkin. 2021. "The COVID-19 Pandemic's Long-Term Financial Impact." *Pew Research Center's Social & Demographic Trends Project* (blog). March 5, 2021. https://www.pewresearch.org/social-trends/2021/03/05/a-year-into-the-pandemic-long-term-financial-impact-weighs-heavily-on-many-americans/.

Jones, Bryan D. 1994. *Reconceiving Decision-Making in Democratic Politics: Attention, Choice, and Public Policy*. University of Chicago Press.

Jones, Bryan D., and Frank R. Baumgartner. 2005. *The Politics of Attention: How Government Prioritizes Problems*. University of Chicago Press.

Jones, Jeffery. 2021. "Roundup of Gallup COVID-19 Coverage." *Gallup.Com* (blog). March 12, 2021. https://news.gallup.com/opinion/gallup/308126/roundup-gallup-covid-coverage.aspx.

Jones, Michael D., and Mark K. McBeth. 2010. "A Narrative Policy Framework: Clear Enough to Be Wrong?" *Policy Studies Journal* 38 (2): 329–53. https://doi.org/10.1111/j.1541-0072.2010.00364.x.

Jones, Michael D., Mark K. McBeth, and Elizabeth A. Shanahan. 2014. "Introducing the Narrative Policy Framework" in *The Science of Stories: Applications of the Narrative Policy Framework in Public Policy Analysis.* New York, NY: Palgrave Macmillan.

Jones, Michael D., and Holly Peterson. 2017. "Narrative Persuasion and Storytelling as Climate Communication Strategies." In *Oxford Research Encyclopedia of Climate Science*.

Jones, Michael D., and Geoboo Song. 2014. "Making Sense of Climate Change: How Story Frames Shape Cognition." *Political Psychology* 35 (4): 447–76.

Jost, John T., Jack Glaser, Arie W. Kruglanski, and Frank J. Sulloway. 2003. "Political Conservatism as Motivated Social Cognition." *Psychological Bulletin* 129 (3): 339–75. https://doi.org/10.1037/0033-2909.129.3.339.

Kincaid, John, and J. Wesley Leckrone. 2021. "Partisan Fractures in U.S. Federalism's COVID-19 Policy Responses." *State and Local Government Review*, February, 0160323X20986842. https://doi.org/10.1177/0160323X20986842.

Koplowitz, Howard. 2021. "Ainsworth Urged Ivey to Lift 'Big Brother-Style' Mask Mandate." *AL.Com*, March 3, 2021, sec. Politics. https://www.al.com/politics/2021/03/ainsworth-again-calls-on-ivey-to-lift-big-brother-style-mask-mandate.html.

Kreps, Sarah, and Douglas Kriner. 2020. Model uncertainty, Political contestation, and Public Trust in Science: Evidence from the COVID-19 pandemic. Retrieved March 30, 2021, from https://advances.sciencemag.org/content/6/43/eabd4563

McMorris, Claire, Chad Zanocco, and Michael Jones. 2018. "Policy Narratives and Policy Outcomes: An NPF Examination of Oregon's Ballot Measure 97." *Policy Studies Journal* 46 (4): 771–97.

Mervosh, Sarah, Denise Lu, and Vanessa Swales. 2020. "See Which States and Cities Have Told Residents to Stay at Home." *The New York Times*, March 31, sec. U.S. https://www.nytimes.com/interactive/2020/us/coronavirus-stay-at-home-order.html.

Mordecai, Mara, and Aidan Connaughton. 2020. "Public Opinion about Coronavirus Is More Politically Divided in U.S. than in Other Advanced Economies." *Pew Research Center* (blog). October 28, 2020. https://www.pewresearch.org/fact-tank/2020/10/28/public-opinion-about-coronavirus-is-more-politically-divided-in-u-s-than-in-other-advanced-economies/.

Nowlan, Luke, and Daniel M. Zane. 2020. "Getting Conservatives and Liberals to Agree on the COVID-19 Threat." *Journal of the Association for Consumer Research* Early View. https://doi.org/10.1086/711838.

Peterson, Holly L. 2018. "Political Information Has Bright Colors: Narrative Attention Theory." *Policy Studies Journal* 46 (4): 828–42.

———. 2019. "Macro Stories: Policy Process Dynamics of Presidential Environmental Ideas."

———. In Press. ""Narrative Policy Images: Intersecting Narrative & Attention in Presidential Stories about the Environment." *Policy Studies Journal.*

Peterson, Holly L., and Michael D. Jones. 2016. "Making Sense of Complexity: The Narrative Policy Framework and Agenda Setting." In *Handbook of Public Policy Agenda Setting*. Edward Elgar Publishing.

Peterson, Kristina. 2020. "Lawmakers Look to Short-Term Funding Measure as Spending Talks Continue." *Wall Street Journal*, December 7, 2020, sec. Politics.

https://www.wsj.com/articles/lawmakers-look-to-short-term-funding-measure-as-spending-talks-continue-11607293308.

Pew Research Center, June, 2019, "Public Highly Critical of State of Political Discourse in the U.S." https://www.pewresearch.org/fact-tank/2020/11/13/america-is-exceptional-in-the-nature-of-its-political-divide/.

Pierce, Jonathan J., Aaron Smith-Walter, and Holly L. Peterson. 2014. "Research Design and the Narrative Policy Framework." In *The Science of Stories: Applications of the Narrative Policy Framework in Public Policy Analysis.* New York, NY: Palgrave Macmillan. 27–44.

"President Biden Announces American Rescue Plan." 2021. The White House. January 20, 2021. https://www.whitehouse.gov/briefing-room/legislation/2021/01/20/president-biden-announces-american-rescue-plan/.

Raile, Amber NW, Eric D. Raile, David CW Parker, Elizabeth A. Shanahan, and Pavielle Haines. 2020. "Women and the Weight of a Pandemic: A Survey of Four Western US States Early in the Coronavirus Outbreak." *Gender, Work & Organization*.

Schaeffer, Katherine. n.d. "Far More Americans See 'Very Strong' Partisan Conflicts Now than in the Last Two Presidential Election Years." *Pew Research Center* (blog). Accessed March 27, 2021. https://www.pewresearch.org/fact-tank/2020/03/04/far-more-americans-see-very-strong-partisan-conflicts-now-than-in-the-last-two-presidential-election-years/.

Shanahan, Elizabeth A., Michael D. Jones, and Mark K. McBeth. 2011. "Policy Narratives and Policy Processes." *Policy Studies Journal* 39 (3): 535–61.

Shanahan, Elizabeth A., Michael D. Jones, Mark K. McBeth, and Claudio M. Radaelli. 2018. "The Narrative Policy Framework." *Theories of the Policy Process*, 173–213.

Shanahan, Elizabeth A., Ann Marie Reinhold, Eric D. Raile, Geoffrey C. Poole, Richard C. Ready, Clemente Izurieta, Jamie McEvoy, Nicolas T. Bergmann, and Henry King. 2019. "Characters Matter: How Narratives Shape Affective Responses to Risk Communication." *PloS One* 14 (12): e0225968.

Sharp, John. 2021. "Will Kay Ivey Follow Other Republican Governors in Lifting Mask Orders?" *Al*, March 3, sec. News. https://www.al.com/news/2021/03/alabama-crossroads-will-kay-ivey-follow-other-republican-governors-in-lifting-mask-orders.html.

Smith, Matthew. 2021. "Global Study: How Many People Know Someone Who Has Died from COVID-19? | YouGov." https://today.yougov.com/topics/health/articles-reports/2021/01/27/global-study-how-many-people-know-someone-who-has-.

Smith, David. n.d. "Trump Has Changed America by Making Everything about Politics, and Politics All about Himself." The Conversation. Accessed May 18, 2021. http://theconversation.com/trump-has-changed-america-by-making-everything-about-politics-and-politics-all-about-himself-146839.

Taylor, Steven, and Gordon J. G. Asmundson. 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.

Times, The New York. 2020. “Coronavirus in the U.S.: Latest Map and Case Count.” *The New York Times*, July 20, 2020, sec. U.S. https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html.

Wicke, Philipp, and Marianna M. Bolognesi. 2020. “Framing COVID-19: How We Conceptualize and Discuss the Pandemic on Twitter.” *PLOS ONE* 15 (9): e0240010. https://doi.org/10.1371/journal.pone.0240010.

Wu, Jennifer D., and Gregory A. Huber. n.d. “Partisan Differences in Social Distancing May Originate in Norms and Beliefs: Results from Novel Data.” *Social Science Quarterly* n/a (n/a). Accessed March 27, 2021. https://doi.org/10.1111/ssqu.12947.

Xu, H. Daniel, and Rashmita Basu. 2020. “How the United States Flunked the COVID-19 Test: Some Observations and Several Lessons.” *The American Review of Public Administration* 50 (6–7): 568–76. https://doi.org/10.1177/0275074020941701.

Yamamoto, Nao, Bohan Jiang, and Haiyan Wang. 2021. “Quantifying Compliance with COVID-19 Mitigation Policies in the US: A Mathematical Modeling Study.” *Infectious Disease Modelling* 6 (January): 503–13. https://doi.org/10.1016/j.idm.2021.02.004.

Yuenger, Jay Noel, Rob Zombie, Rob Wolfgang Zombie, and Shauna Yseult Renyolds. 1995. *More Human than Human*.

Zanocco, Chad, Geoboo Song, and Michael Jones. 2018. “Fracking Bad Guys: The Role of Narrative Character Affect in Shaping Hydraulic Fracturing Policy Preferences.” *Policy Studies Journal* 46 (4): 978–99.

Zanocco, C., Flora, J., Rajagopal, R., & Boudet, H. 2021. “Exploring the effects of California's COVID-19 shelter-in-place order on household energy practices and intention to adopt smart home technologies.” Renewable and Sustainable Energy Reviews, 110578.

CHAPTER 6: SPEAKING FROM EXPERIENCE: MEDICAID CONSUMERS AS POLICY STORYTELLERS

Kathleen Colville*, North Carolina State University, North Carolina Institute of Medicine
Melissa K. Merry, University of Louisville

ABSTRACT

Kentucky's proposed Medicaid reforms, initiated in 2016 and blocked in federal court in 2018 and again in 2019, elicited an extraordinary volume of public input on the value of Medicaid (publicly-funded health insurance for low-income individuals). Personal statements from current and former Medicaid consumers, through written comments submitted to the Centers for Medicare and Medicaid Services, offer insights into the strategies employed by a segment of the public that contributes infrequently to policy debates. Through a combination of manual and automated content analysis of a random sample of 1100 public comments, we analyze the policy narratives of participants, examining how narrative and non-narrative elements varied depending on commenters' relationship to Medicaid consumers. Nearly all comments met (and most exceeded) the threshold for a policy narrative, while relatively few comments drew on research-based content typically considered privileged in the rule-making process. Further, these narrative elements cohered in distinct storylines from current and past Medicaid consumers and from those who identified as service providers. This research underscores the importance of narratives as sources of evidence in regulatory processes and suggests that public comments are fertile ground for research using the Narrative Policy Framework. This work also illuminates bottom-up narrative construction, a process thus far overlooked in micro-level research presuming that citizens are passive recipients of narratives, rather than producers themselves. For future work examining micro-level narrative production, we identify important considerations, including the role of narrator trust, audience, forms of evidence, setting, and the interaction between the meso and micro levels.

*Corresponding author: kacolvil@ncsu.edu

To cite the chapter: Colville, Kathleen, and Melissa K. Merry. 2022. "Speaking from Experience: Medicaid Consumers as Policy Storytellers", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 138-165. doi.org/10.15788/npf6

INTRODUCTION

From June 2016 to August 2018, interested individuals submitted over 16,000 public comments to the Centers for Medicare and Medicaid Services (CMS) on the Kentucky HEALTH (Helping to Engage and Achieve Long-Term Health) Section 1115 Medicaid waiver. States seeking to try new approaches to administering Medicaid funds submit Section 1115 waiver proposals for approval by CMS, provided that these approaches are budget neutral and are aligned with Medicaid objectives of access to healthcare for low-income individuals (Hinton et al., 2019). Affordable Care Act (ACA) rules require formal solicitation of public comment to state administrations when a Section 1115 waiver is in development, and again after the proposal has been submitted to CMS (Centers, n.d.). The extraordinary volume of public comments on Kentucky HEALTH reflects the input of many different constituencies. Importantly, these comments offer researchers the opportunity to study the political activity of Medicaid consumers[10] and their opinions about the experience and direction of this program, as expressed in their own words. These comments illuminate how consumers use policy narratives not only to articulate and support their policy preferences but also to establish themselves as legitimate commenters on policy and as deserving recipients of public benefits.

With few exceptions, people who use Medicaid for their health insurance are categorically eligible for the program due to their incomes being near or below the federal poverty level (FPL). Researchers note that the political activity of low-income individuals is often suppressed or attenuated for a variety of reasons, including lower levels of time and financial resources required for participation, fewer ties to civic organizations, lack of targeted mobilization by candidates and interest groups, and the disproportionate impact of felony disenfranchisement laws (Bruch et al., 2010). Additionally, as noted by scholars of policy feedback, the stigma associated with means-tested programs and stereotyping of beneficiaries tend to deepen disengagement (Campbell, 2007; Mettler & Stonecash, 2008; Schneider & Ingram, 1993; Skocpol, 1991). Despite these limiting factors, a substantial number of Medicaid consumers participated in the Kentucky HEALTH debate. Thus, this study takes advantage of a rare opportunity to examine how targets of public policy typically viewed as passive recipients use their own voices to construct policy narratives from the bottom-up.

PROBLEM DEFINITION FROM THE TOP DOWN VERSUS THE BOTTOM UP

Reflecting the assumption that problem definition is an elite-driven process, most prior research on welfare policy has analyzed evidence from the congressional record (see Guetzkow, 2010; Hancock, 2004; Mead, 2011; Stryker & Wald, 2009) or from media coverage (see Gilens, 1999; Meanwell & Swando, 2013; Misra et al., 2003; Rose & Baumgartner, 2013). Examining the "welfare queen" policy image, Hancock (2004) argued that elected officials stereotyped welfare beneficiaries to serve their political goals, and she found no significant inclusion of beneficiaries' voices in the congressional record or in media coverage. Only a handful of studies have involved interviews of welfare beneficiaries to analyze how beneficiaries view themselves and frame the issue of poverty (see Michener, 2018; Seccombe et al., 1998; Shildrick & MacDonald, 2013). For instance, in interviews with 47 women recipients of cash assistance in 1995, Secommbe et al.

[10] Following Stewart and Watson (2019), we use the term "Medicaid consumer" rather than "recipient" or "beneficiary." This term is value-neutral and avoids confusion with the use of the term "beneficiary" as a character type in the Narrative Policy Framework.

(1998) found that recipients were aware of their stigmatized status and invoked victim-blaming theories to explain other people's reliance on government assistance, while emphasizing structural explanations to account for their own status. Shildrick and MacDonald (2013) and Willen (2012) observed that the voices of people in poverty are rarely heard, though these individuals are often talked about and theorized by others.

To begin filling this critical void, we examine two aspects of policy narratives produced by Medicaid consumers: self-description and use of story. Like other policy participants, Medicaid consumers reveal information about themselves in their public comments. They may do this to establish or enhance their standing as trusted authorities on policy, to position themselves and others like them as worthy policy beneficiaries, or to share evidence from their personal experiences that they believe to be compellingly connected to policy choices. Self-description may take on aspects of narrative (such as depicting oneself as a hero or victim), and elements of story are considered to be frequently used by policy outsiders (non-elite, infrequent participants in the policy process). Farina et al. (2012, p. 116) share their experiences leading a facilitated, deliberative online policy initiative called "Regulation Room," directed towards policy outsiders: "When we ask for reasons and for factual support, [participants] persist in telling stories. Instead of hypothetical examples, they offer first-person narratives. Instead of logic-based reasoning from abstract principles, they support their positions with highly contextualized arguments from their own experience." This strategy of argumentation stands in sharp contrast to the world of "professional rulemaking participants" such as career government officials and lobbyists, who tend to value "data-driven" evidence over anecdotes as evidence (Epstein et al., 2014).

Using the Narrative Policy Framework (NPF) to investigate these stories of personal experience, we start by identifying gaps at the micro, or individual level of analysis. Next, we turn to our case study of Kentucky HEALTH. Through content analysis of 1100 public comments submitted in the course of three public comment periods, we show that commenters routinely relied on narratives to support their policy positions, while they rarely cited research-based evidence. Further, we find that narrative elements cohered in distinct narratives depending on commenters' relationship to Medicaid beneficiaries. These findings underscore the importance of narratives as sources of evidence in regulatory processes and demonstrate that policy targets, much like other political actors, strategically deploy narratives to influence the policy process. Finally, based on observations from this case study, we offer five considerations for hypothesis development at the micro level of the NPF: narrator trust, forms of evidence, audience, setting, and the interaction between micro and meso levels.

UNDERTHEORIZED ELEMENTS OF THE NARRATIVE POLICY FRAMEWORK

Shanahan et al. (2017) articulate five core assumptions that form the theoretical foundation for all NPF studies. One of these core assumptions is the NPF model of the individual, the *homo narrans.* The *homo narrans* is emotional, limited cognitively, and constantly satisficing given conditions of limited attention, time, mental and material resources. Ten codified premises form the basis of the NPF's *homo narrans* model, and they are overwhelmingly focused on the cognitive defaults that humans rely on as consumers of policy narratives. Only one postulate, narrative cognition, explicitly considers the productive communication methods of the individual: this postulate asserts that narrative is humans' preferred form of internal organization of thoughts, feelings, memories, and information, and narrative is our primary communication device to the rest of the world. However, the other postulates could be reimagined in ways that inform our understanding of narrative production. For instance, the postulate focusing on heuristics notes that

"individuals rely on information shortcuts to process information and to facilitate decision-making" (Shanahan et al., 2017, p. 181). Presumably, narratives are especially powerful tools of persuasion because they simplify; they distill complex realities to a limited set of narrative elements, thus drawing on and reinforcing the tendency toward heuristic processing. This same tendency should also influence micro-level narrative construction, evidenced by individuals' reliance on their own experiences—more readily available than outside research—as the raw materials for their policy narratives. Another postulate, identity-protective cognition, asserts that individuals seek to protect their prior identities, or "who they already understand themselves to be," which is less burdensome than re-evaluating their priors (Shanahan et al., 2017, p. 182). This tendency should not only affect how individuals respond to different narratives, but also influence their own use of narrative elements. For instance, identity protection might be apparent in individuals' efforts to establish themselves as authoritative narrators or in the portrayal of themselves or their allies as worthy.

Thus far, micro-level NPF scholarship has *not* explored these possibilities, focusing instead on identifying the narrative strategies that influence individual policy preferences and conducting studies to illuminate the mechanisms by which individuals process policy narratives and express preferences. Typically, these studies have used survey experiments, exposing subjects to different narratives on the same issue, evaluating whether subjects are persuaded by these narratives, and identifying factors relevant to persuasion, such as the use of particular character types (see Jones, 2014b) or culturally or ideologically congruent themes (see Jones 2014a; Zanocco et al., 2018). Moving closer to an analysis of individuals as narrative producers, McBeth et al. (2016) studied the narrative choices of stakeholders involved in river restoration. Defined broadly as "individuals who are highly vested in a policy issue, have influence, and interest," stakeholders include technical experts, interest group leaders, and activists (McBeth et al., 2016, p. 424); while members of the public are not explicitly included here, they are not excluded. Interestingly, the authors analyzed stakeholders at both the meso level (examining their narrative strategies for communicating with the public) and micro level, exploring the possibility that identity-protective cognition influenced stakeholders' use of narratives. Work by Sievers and Jones (2020) similarly suggests an opening in the NPF for micro-level narrative production. The authors elaborate on three dimensions of power in the policy process and argue that narratives created by policy targets (at the micro level) can be compared to meso and macro level narratives to operationalize two of these dimensions—agenda control and domination, or "power over" (p. 103).

In short, the NPF has significant, but as yet unrealized, potential for elucidating the role of the individual as a narrative producer in the policy process. A more thoroughly elaborated model of micro-level narrative production would explain strategic decision-making in individuals' use of narrative, including how individuals establish their authority as speakers, and the relationship of narrative production to individual and group identity, among other concepts. Further, the bottom-up methodology suggested by this approach offers two related advantages. First, it provides a counterweight to pluralistic scholarship focused on the competition among organized interests in the policy arena (Sievers & Jones, 2020, p. 97). Specifically, this approach focuses on (and can potentially yield new insights into) the role of individuals in the policy process, including how stigmatized populations speak for themselves and how they engage in collective political action. Second, this approach has the potential to address some of the criticisms of the NPF raised by interpretivists, or scholars who reject objective epistemology in favor of subjectivity as a source of understanding (Dodge, 2015). In particular, interpretivists have criticized quantitative NPF research for reducing the analysis of stories to mere statistics (and thus failing to explore narrative

richness) and for neglecting the social contexts in which narratives emerge (Lejano, 2015). The elaboration of bottom-up narrative production within the NPF has the potential to encourage more immersive, qualitative research—focusing on the lived experiences of policy targets—and to correct these perceived imbalances.

KENTUCKY'S 2016–2019 MEDICAID DEBATE AND THE VALUE OF STUDYING HEALTHCARE POLICY

Kentucky HEALTH was controversial in part because it differentiated the program for different groups of consumers and proposed additional requirements for the "expansion population." A 2014 executive order from the Democratic governor expanded eligibility in accordance with the ACA, raising the upper-income boundary to 133 percent of the FPL. Kentucky HEALTH, an initiative of a Republican governor elected in 2015 on an anti-ACA platform, bifurcated benefits packages for the "traditional" and "expansion" populations. It included community engagement requirements (volunteering or paid work) for "able-bodied" adults, a requirement to report employment status changes within 10 days, premiums, and changes or cuts to certain services such as dental and vision care for the expansion population. It also included six-month "lock-outs" for non-compliance with the new rules (Musumeci et al., 2018). The waiver was twice struck down in federal court and never enacted (Stewart & Watson, 2019). In the November 2019 gubernatorial race, Andy Beshear defeated Matt Bevin, whose administration had created Kentucky HEALTH; Beshear vowed in his victory speech on election night, "In my first week in office, I'm going to rescind this governor's Medicaid waiver," one of the loudest applause lines of his speech (Kentucky Educational Television, 2019).

Healthcare is an excellent domain in which to examine micro-level policy narrative construction, given the direct impact of policies in this arena on the public. In 2018, approximately 1.38 million Kentuckians were covered by Medicaid, accounting for more than 30 percent of the state's population (Kentucky Cabinet, 2018). Moreover, the bifurcation of benefits proposed in Kentucky HEALTH and the constraints in access proposed for the expansion population engages directly with questions about who is deserving of public benefits, suggesting the centrality of characters in issue definition. Michener's (2018) research examining the impact of federalism on consumers' experiences with Medicaid underscores the importance of narratives in healthcare politics. She found that professional policy advocates often collected exemplary stories from Medicaid consumers that highlighted important aspects of the program that needed either preservation or transformation. One advocate described this "story-making" process as the largest initiative of their grassroots mobilization strategy. Given the diversity of Medicaid consumers—including not only those living in extreme poverty but also the working poor and those who consider themselves middle-class, qualifying for Medicaid as a result of health circumstances or care of foster children, for example—the case offers the possibility of wide variation in the use of story.

The case of Kentucky HEALTH also represents an opportunity to apply the NPF to a new communication forum: public comments in the rule-making process. Prior NPF research has focused on "public consumption documents"—such as press releases, newsletters, and social media posts—with presumably wide-ranging purposes, from education to mobilization, and diverse audiences, from citizens to policymakers (Shanahan et al., 2018). Narrative strategies in these forums may thus be intermingled with other elements of communication. Public comments, in contrast, have one clear purpose and audience: persuading government agency officials (in this

case, the CMS, and, to some extent, the Bevin Administration) to adopt (or not adopt) proposed rules. This specificity, in turn, may be associated with greater prominence and clarity of narrative communication: more signal, less noise.

Scholars have just begun to examine the rollout of Medicaid expansion under the ACA, and few studies have looked at the handful of states that submitted Section 1115 waivers (see Baker & Hunt, 2016; Stewart & Watson, 2019). Two studies have assessed the framing of policy debates in states with Medicaid waivers (see Grogan et al., 2018; Jarlenski et al., 2017). Analyzing nearly 300 public comments on Section 1115 waiver applications in five states, Jarlenski et al. (2017) found a high percentage of comments from Medicaid-eligible citizens, most of which expressed disapproval of controversial waiver provisions. Given that previous research on the rule-making process suggests that the public plays a very limited role (Golden, 1998; Yackee & Yackee, 2006), this finding is striking. Further, the authors found that citizen commenters were more likely to use anecdotes than research-driven arguments. To extend this line of research and to shed light on citizens' role in Medicaid policymaking, we focus on the following research questions:

RQ1: How prevalent are narratives in the public comments in relation to research-based content?

RQ2: How does use of narrative elements (character and setting) vary as a function of the commenter's self-description?

RQ3: What types of stories do Medicaid consumers tell, and how do those stories differ from those told by other types of commenters?

RESEARCH METHODS AND DATA

We collected all public comments from three separate comment periods—spanning from September 2016 to August 2018—from the CMS website. After eliminating duplicates and comments with no substantive content, we paired the dataset down to 11,640 comments. The large volume of comments is attributable in part to grassroots mobilization efforts by various interest groups, including a joint effort by Kentucky Voices for Health and the Kentucky Equal Justice Center. Using Survey Monkey, these two organizations created a three-minute survey that prompted citizens to describe their experiences with Medicaid and how the proposed changes would affect them (Stewart & Watson, 2019). The groups' explicit intention with this approach was to elicit the personal stories of Medicaid consumers rather than to generate impersonal, "form letter" style comments (Stewart & Watson, 2019). The groups then submitted the survey responses as public comments to CMS. We determined that approximately 70 percent of the total comments were responses to a prompt, most from this survey.

From this dataset, we randomly sampled 1100 comments for manual content analysis, with major attributes of the comments summarized in Table 1. For each comment, we coded for position on the waiver, relationship to Medicaid consumers, and the use of narrative elements, focusing on characters, setting, and solutions, among other attributes.[11] We identified three policy positions: 1) pro-Medicaid, expressing support for Medicaid with no mention of the waiver; 2) oppose waiver, expressing objections to aspects of the waiver or to the waiver as a whole; and 3) support waiver, expressing support for specific aspects of the waiver or for the waiver as a whole. We also noted comments which expressed no policy position.

[11] Prior to coding the random sample, we engaged in several rounds of test coding and discussion to ensure consistency in the content analysis. Each comment was then coded by one person.

For relationship to Medicaid consumers, we identified seven categories: 1) current self; 2) past self or family; 3) current family member (excluding self); 4) other relationship, in which the commenter identified a friend or acquaintance as a Medicaid consumer; 5) advocate, in which the commenter identified as an advocate or representative of an interest group; 6) service provider, in which the commenter described a professional role working directly with Medicaid consumers, such as a health care provider or social worker; and 7) unidentified, in which the commenter did not identify his/her relationship to Medicaid consumers. While these categories were not mutually exclusive, just 1.4 percent of comments identified more than one relationship to Medicaid consumers (e.g., service provider and family member).

Table 1. Summary of Data by Commenter Type

Commenter Type	# of Comments (% of Total)	Mean Word Count	# of Comments Responding to a Prompt	Policy Preference (Number and % Total in Category)			
				No Position	Oppose Waiver	Pro-Medicaid	Support Waiver
Current Self	272 (24.7%)	64.7	196 (72.1%)	15 (5.5%)	178 (65.4%)	77 (28.3%)	2 (0.7%)
Past Self or Family	37 (3.4%)	72.9	22 (59.5%)	1 (2.7%)	12 (32.4%)	22 (59.5%)	2 (5.4%)
Current Family Member	126 (11.5%)	81.4	76 (60.3%)	4 (3.2%)	81 (64.2%)	39 (31.0%)	2 (1.6%)
Other Relationship	49 (4.5%)	93.2	34 (69.4%)	1 (2.0%)	34 (69.4%)	10 (20.4%)	4 (8.2%)
Advocate[12]	4 (0.4%)	170.3	--	--	4 (100%)	--	--
Service Provider	117 (10.6%)	107.9	68 (58.1%)	1 (0.9%)	92 (78.6%)	19 (16.2%)	5 (4.3%)
Unidentified	513 (46.6%)	79.2	333 (64.9%)	34 (6.6%)	342 (66.7%)	60 (11.7%)	77 (15.0%)

We also constructed dictionaries of keywords and phrases relevant to selected aspects of narrative and non-narrative content, including references to a geographic location (i.e., setting) and to research or empirical evidence.[13] We used a computer content analysis program, Linguistic Inquiry and Word Count (LIWC), to identify comments in which these topics appeared and to calculate other features of interest, including word count and references to quantifying language (see Berry et al., 1997; Pennebaker, 1997).

Our qualitative analysis focused on three types of commenters—current Medicaid consumers, past consumers, and service providers—and used an inductive social constructivist approach to identify similarities in perceptions and consequences of reality within and across groups (i.e., commenter types). In our sample of 1100 comments, 92 commenters supported Kentucky HEALTH; of those, only 15 identified their relationship to a Medicaid consumer (2 current consumers, 2 past consumers, 5 service providers, 6 family members and other

[12] Given that advocates comprised such a small number of commenters, we excluded them from our analyses.

[13] See Appendix A for descriptions of content analysis categories.

relationships). The small number of comments in our sample supporting the waiver reflects the overall narrative landscape in which the public comments were heavily weighted toward opponents of changes proposed in Kentucky HEALTH.[14] While our qualitative analysis focuses on commenters who supported either expanded Medicaid or opposed Kentucky HEALTH, we briefly summarize similarities among the five comments by service providers who supported the Kentucky HEALTH waiver. To assess for thematic patterns, all comments were read through once without coding, followed by an open coding step. Then patterns of themes were proposed, tentative descriptions developed, and comments were coded for presence and absence of the theme, with descriptions modified as appropriate until the analysis reached saturation and the descriptions were finalized (see Table 2). Themes are intended to have descriptive integrity but are not mutually exclusive.

RESULTS

The Prominence of Narratives

To determine the prevalence of narratives in the public comments, we calculated the percentage of comments that referred to at least one character and one solution, i.e., the minimum threshold for a narrative, as identified by Shanahan et al. (2018). 993 comments (or 90.3 percent of total comments) cleared this threshold. In fact, every comment mentioned either Medicaid or the waiver, in general or specific terms, and the average number of narrative elements per comment was 2.9. The most common character type was victim, appearing in 62.4 percent of comments, followed by beneficiary (in 40.3 percent of comments), hero (in 20.4 percent of comments), and villain (in 12.7 percent of comments). Setting appeared in 11.8 percent of comments.[15] Figure 1 illustrates the percentages of comments containing these narrative elements, separated by relationship to Medicaid consumers. As indicated by varying emphases across narrative elements, different types of commenters told different stories, with current Medicaid consumers placing more emphasis on victims than on beneficiaries, and past Medicaid consumers doing the opposite.[16] Current consumers and family members were also less likely to use villains than the other commenter types.[17] Finally, setting also appeared more prominently in the narratives of service providers.[18]

---

[14] Rather than a problematic feature of the data, this imbalance represents a rare opportunity to examine the narrative strategies of infrequent policy actors (i.e., low income individuals). Future research should, however, explore the narratives of those who support restricting Medicaid and to assess whether narrative strategies vary as a function of policy position.

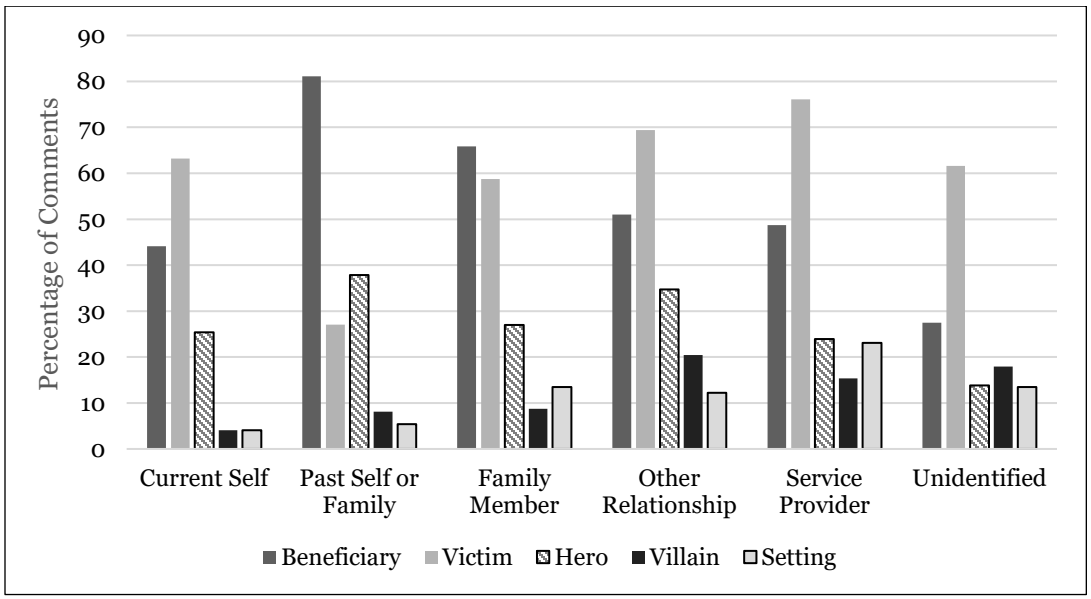
[15] See Appendices B and C for frequencies of specific characters and solutions.

[16] A Pearson's chi-square test indicated that past Medicaid consumers were significant more likely to mention beneficiaries ($\chi^2 = 24.781$, $p < 0.01$) and less likely to mention victims ($X^2 = 18.841$, $p < 0.01$) than other types of commenters.

[17] A Pearson's chi-square test indicated that current Medicaid consumers were less likely than other commenters to use villains ($\chi^2 = 23.501$, $p < 0.01$), while unidentified commenters were more likely to mention villains ($\chi^2 = 22.591$, $p < 0.01$).

[18] A Pearson's chi-square test indicated that current Medicaid consumers were less likely than other commenters to use setting ($\chi^2 = 19.976$, $p < 0.01$), while service providers were more likely to use setting ($\chi^2 = 14.739$, $p < 0.01$).

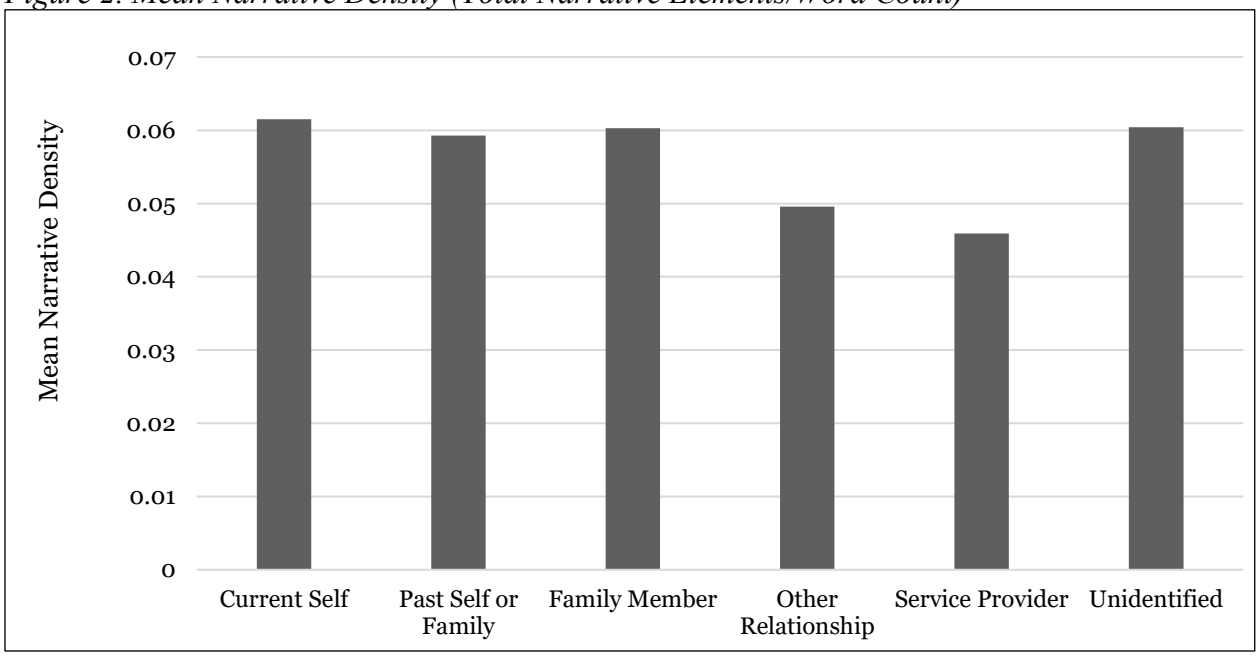
Figure 1. Percentages of Comments Containing Characters and Setting



In addition to assessing variations in emphasis, we examined how densely packed commenters' narratives were. Specifically, we calculated the sum of narrative elements per comment—i.e., total characters plus total solutions and setting—and then divided total narrative elements by the comment's word count. This ratio, which we call narrative density, captures the extent to which a comment is devoted to narrative versus other elements and is distinct from other measures of narrative density, such as chronology and information units (Fivush, 1991). As indicated in Figure 2, current Medicaid consumers had the highest narrative density, while service providers had the lowest narrative density.[19]

[19] Two-sample t-tests indicated that mean differences in narrative density were statistically significant for service providers ($t = 4.2$, $p < 0.01$) and for commenters classified as "other relationship" to Medicaid consumer ($t = 1.97$, $p = 0.05$).

Figure 2. Mean Narrative Density (Total Narrative Elements/Word Count)

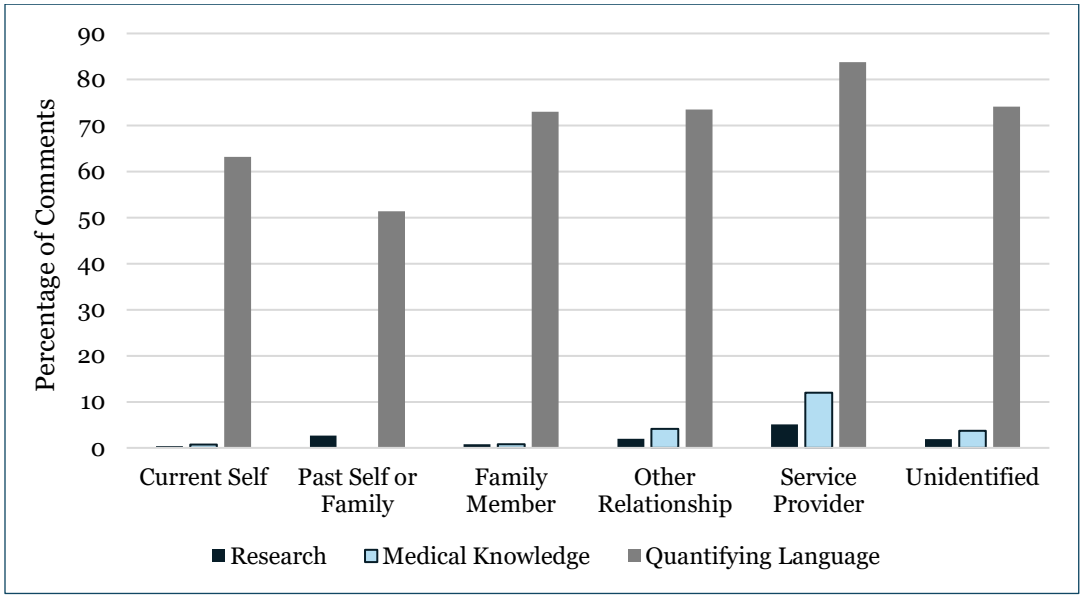


Stated differently, while current Medicaid consumers typically wrote short comments, their statements packed a strong narrative punch. In contrast, service providers' comments contained narrative elements as well as other non-narrative content, including details about their professional backgrounds and about the policy impacts—in terms of effectiveness, efficiency, and feasibility—of Medicaid and of Kentucky HEALTH.

Research-Based Content

To assess the use of research-based and data-driven arguments in the public comments, we examined three attributes: 1) references to research, based on our dictionary and calculated automatically by LIWC; 2) references to medical knowledge, such as the relationship between dental and cardiovascular health (coded manually); and 3) quantifying language (e.g., "average," "few," "percent") based on an internal LIWC dictionary and calculated automatically.

Figure 3—Percentages of Comments Containing Research-Based Arguments



As indicated in Figure 3, references to research and medical knowledge were rare; service providers had the highest percentages of both, at 5.1 and 12 percent, respectively.[20] Quantifying language was more common—reflecting the fact that this dictionary, with terms such as "many" and "each," captures much more than references to data—though it was also highest among service providers.[21]

Qualitative Analysis of Storylines

As the preceding quantitative analysis demonstrates, frequencies of narrative and non-narrative elements varied across different types of commenters. Next, we examine how these narrative elements cohered in distinct storylines. We focus our qualitative analysis on pro-Medicaid expansion/anti-waiver comments by current Medicaid consumers, past Medicaid consumers, and service providers. Based on differences in use of characters, setting, and research-based content uncovered in the quantitative analysis, these were the three types of commenters that we anticipated might tell different stories.[22] This analysis reveals that most narratives that

[20] A Pearson's chi-square test indicated that service providers were more likely than other types of commenters to mention research ($\chi^2 = 7.7388$, $p < 0.01$). Likewise, service providers were more likely ($\chi^2 = 26.917$, $p < 0.01$) and current Medicaid consumers were less likely ($\chi^2 = 6.64$, $p < 0.01$) than other types of commenters to draw on medical knowledge.

[21] Pearson's chi-square tests indicated that current consumers ($\chi^2 = 15.111$, $p < 0.01$) and past Medicaid consumers ($\chi^2 = 7.569$, $p < 0.01$) were less likely than other types of commenters to use quantifying language, while service providers ($\chi^2 = 7.6502$, $p < 0.01$) and unidentified commenters ($\chi^2 = 5.517$, $p = 0.02$) were more likely to use quantifying language.

[22] We did not include commenter types of "other" and "unidentified" in our qualitative analysis because of the vagueness of authorship. We did not include people classified as "advocates" because there were only four people in our sample, and we eliminated "current family members" because of their resemblance to "current consumers" in the quantitative analysis.

support the status quo (Medicaid expansion) make use of one of two overarching perspectives, summarized as "Medicaid is part of a system working as it should" and "Medicaid is a remedy to an otherwise broken system." These are further broken down into nine themes, summarized in Table 2.

Table 2. Perspectives and Themes in Comments Supporting Expanded Medicaid and/or Opposing Kentucky HEALTH

Perspective	Theme	Description
Medicaid is part of a system working as it should.	I get the care I need.	Commenter asserts that Medicaid enables access to healthcare.
	I fell on hard times and the safety net caught me.	Commenter describes a temporary setback or life challenge made less acute by Medicaid.
	Medicaid saved my life.	Commenter claims that Medicaid enabled healthcare access that likely prevented someone's death.
	Medicaid is a ladder of opportunity.	Commenter describes journey of upward mobility made possible by Medicaid.
	Medicaid cascade	Commenter claims Medicaid contributes to downstream, non-medical individual, group and/or societal outcomes.
	These changes won't work in real life.	Commenter describes proposed waiver changes as difficult or impossible to implement in consumers' lives and/or in administrative systems.
Medicaid is a remedy to an otherwise broken system.	Despite my hard work…	Commenter describes the disparity between the hard work of low-income people and their rewards, of which Medicaid is one of the few benefits.
	It's Medicaid or nothing at all.	Commenter describes Medicaid as the only available route to healthcare access.
	Healthcare is an unrealized human right.	Commenter evokes moral or social obligation to provide universal access to healthcare.

Each commenter type had strong representation of the most forthright theme, "I get the care I need." Current Medicaid consumers were also noteworthy for their more frequent use of two themes related to feasibility ("These changes won't work in real life" and "It's Medicaid or nothing at all"), which focus on the nuts and bolts of low-income consumers' lived experiences of Medicaid access. Past consumers were more likely to emphasize Medicaid as a buffer to life's challenges and as a ladder of opportunity, helping to lift people out of poverty. Service providers, like the current Medicaid consumers, defended the status quo by stressing the difficulties in implementing proposed changes, such as work/volunteer requirements, co-pays, and eligibility lock-outs. Service providers, much more than any other commenter type, used the theme of the "Medicaid cascade," focusing on the larger societal implications of Medicaid access and the downstream effects of Medicaid policy changes on individual and community well-being, family functioning, and local economies.

Almost all of the current Medicaid consumers in our sample depicted Medicaid as a successful tool in a functional system or as a rare bright light in an otherwise dysfunctional system.

Comments holding the perspective of "Medicaid is part of a system working as it should" can be further divided into four themes. In the first theme ("I get the care I need"), Medicaid consumers focused on program effectiveness as assessed by Medicaid's straightforward policy goal of increasing access to medical services. This theme is exemplified in the following comment: "I had to have gallbladder surgery two years ago. I would not have been able to have it without Medicaid. My daughter has to have therapy and the insurance covers everything. I am a single working mom and money is stretched thin at our house."[23] The implicit argument in comments of this type is that Medicaid is functioning as designed by relieving the commenter's personal health and economic burdens.

In the second theme, "I fell on hard times, and the safety net caught me," current and past consumers described temporary setbacks and vulnerabilities (e.g., injury, illness, divorce, job loss) that were made less acute by Medicaid eligibility. These comments often contained significant personal details, such as medical diagnoses, local place names, family relationships, personal incomes, work histories, and more, as in the following:

> My husband's company closed their stores and he lost his job AND his insurance. Because of his age, it was difficult for him to find employment. The ACA allowed him to obtain insurance and get the first check-up he had been able to obtain in years. It was then that we discovered his cancer. We were lucky that we were able to catch it early. If we hadn't had the Medicaid, we might not have caught it until it was much farther advanced. The Medicaid expansion saved his life. (excerpt)

Implicit in these comments is an assumption that Medicaid provides relief from the sometimes cruel and unpredictable trials of life; the system is virtuous because it contains an accessible Medicaid program, and Medicaid protects people from the challenges attendant with human frailty.

In the third theme, "Medicaid saved my life," commenters made the claim that the alternative to Medicaid access is death, as in the following:

> I can't afford insurance and my employer doesn't offer it so my kids and I would not be able to afford to get sick or regular check ups without it. If I didn't have medicad I never would have gone for a regular check up where the doctor was concerned over the appearance of a cyst that I didn't notice. He never would have ordered test to make sure I was fine. The cancer would have ravaged my body and I would have died at 32 leaving my two children without a mother.

This theme positively portrayed access to life-saving medical care and often included dramatic details of grim alternate realities without Medicaid: orphaned children, death, and suffering were all avoided because of the presence of Medicaid. Implicit in these arguments is the assumption that all human life has inherent value and that Medicaid should be preserved because of its role as a protector of human life.

In the fourth theme, "Medicaid is a ladder of opportunity," commenters explained how Medicaid enabled them to progress from a less desirable past status to achieve upward mobility, as in the following comment from a current consumer: "Medicaid has allowed me to leave a bad job that I stayed in for years because of the employer provided insurance. It has now allowed me to go back to school full-time to improve my job skills without worrying about my healthcare."

[23] Unless otherwise noted, each comment is quoted in full and with the original commenter's unaltered language, grammar, punctuation, and spelling.

Drawing on the traditional American value of self-reliance, these comments suggest that Medicaid rescues people from poverty and enables the fulfillment of human potential by helping people help themselves.

This theme was even more pronounced among past consumers, who were also more likely, according to our quantitative analysis, to use beneficiaries as characters. We see both of these characteristics in this comment:

> The peace of mind that came with my Passport Health insurance through KY Medicaid helped me through three years of schooling, to where I am now. I have a secure job that provides health benefits. And I will gladly and openly continue to pay taxes so my Kentucky neighbors who are less fortunate can feel the peace of mind I did. (excerpt)

Such comments present before-and-after redemption stories of beneficiaries- or victims-turned-heroes, which foreground the use of public assistance as a tool of uplift rather than dependence. Commenters implicitly evoked cost-benefit arguments as they revealed that the temporary use of public funds in the past has yielded personal and societal dividends; they are self-sustaining economically contributing taxpayers.

In the fifth theme, "These changes won't work in real life," current consumers emphasized the gap between proposed expectations (work, volunteering, reporting income changes) and details of their lives that would likely work against successful compliance with these rules:

> If premiums are raised and the 80 hour work mandate is enforced, as a single parent who is solely responsible for 2 elementary aged children, I will not be able to keep my coverage. I cannot afford, even working 2 jobs, the cost of childcare to keep up with the mandated hours. Right now I can only work while my children are at school because I cannot afford daycare or a babysitter.

Consumers discussed barriers to compliance such as frequent changes in income that would make it difficult to comply with proposed rules for reporting within 10 days, lack of transportation, lack of funds for co-pays, few jobs and volunteer opportunities available, and trouble understanding and keeping up with all the rules. In many of these comments, consumers argued that if these proposals were adopted, they would surely lose their coverage. Similarly, service providers shared stories of how the rules would not work well for consumers or for themselves:

> As pastor of a church, we would anticipate a large number of people needing to get those hours in by volunteering for us BUT that is not a very helpful way for us to manage. We don't have staff or time to manage untrained and sometimes unknown volunteers. It sounds good on paper, but our experience with other enforced volunteer programs (like court ordered community service) proves otherwise.

Emphasizing a disconnect between what works "on paper" and in real lives, these comments implicitly endorsed the current program as the most feasible and frictionless way to meet Medicaid's core goal of expanding access to healthcare.

In contrast to these themes focusing on the positive impacts of the status quo version of Kentucky's Medicaid program, comments aligned with the overarching perspective that "Medicaid is a remedy to an otherwise broken system" highlighted the struggle that Medicaid consumers face in a system that offers few benefits. In the "Despite my hard work…" theme, commenters emphasized a disparity between what they put into the system (years of hard work)

and what they can get out of it (private health insurance is still unaffordable). Medicaid is the exception to a system that offers few rewards, even to people who work multiple jobs, such as this commenter: "I work 2 jobs, one being a full time state merit employee and still qualify for Medicaid. I could not afford to pay insurance for my daughters and my self. Not everyone that a medical card is unemployed or lazy!! By the way...I am not on ant other type of government assistance."

Comments that used the theme "It's Medicaid or nothing at all" depicted a barren landscape of health insurance options, with Medicaid portrayed as the only route available. This resembles the "Medicaid saved my life" theme, but with less emphasis on the positive and more on the absolute dearth of options. Implicit in this argument is the assumption that Medicaid is valuable because it is the singular provider of a unique service; without it, consumers have no feasible choices:

> Expanded Medicaid coverage has, for me, been the difference between incurring massive crippling debt and having to beg for help from pharmaceutical companies and my physicians. It has made and kept me healthier. It has meant that the last two surgeries I'\'ve needed due to degenerative arthritis complications didn't leave me broke - or broken, because I wouldn't have afforded them otherwise. I am a long-term (30+ years) Type 1 Diabetic. Finally having prescription coverage after decades without, I no longer have to portion out how often I use glucose meter strips or wonder if taking the insulin necessary to treat an unexpected high will leave me without enough to get through the month. I have Psoriatic Arthirtis. The x-rays and other diagnostics it took to get me diagnosed; the biologic medication that keeps me _functional_; the surgeries I've needed and the treatments I will continue to need - ALL of these were made possible by Medicaid. I'd be a shadow of myself (if I wasn't dead) without this insurance.

The theme "Healthcare is an unrealized human right" is ubiquitous in health insurance policy debates but appeared rarely in this sample of current Medicaid consumers. Comments using this theme focused on the moral flaws in limiting access to care, as in the following:

> Now on medicaid, I was able to go to the UofL dental school and found I had a severe tooth infection. They pulled the tooth and treated the infection. If I had waited longer, I could have died leaving my child an orphan and my aging sick mother to care for her. It tears me up to think that something as simple as this out patient procedure that saved my life could be withheld from someone else. (excerpt)

Another commenter focused on the relationship between poverty and healthcare access, evoking questions of society's moral obligations to the poor:

> If the new law happens a lot of poor people will get sick and die. This is a crazy law I think everyone should get free health care. I know how it was before I couldn't even go to the dr. I was very sick and high blood pressure and couldn't even get my meds. So please listen to the poor people cause we are the ones affected by what you do. (excerpt)

As highlighted in the quantitative analysis, service providers were more likely than other types of commenters to use research-based content and setting in their comments. Our qualitative

analysis demonstrates that they also made use of a theme we call the "Medicaid cascade" in which they emphasized downstream effects of access to healthcare, for individuals and communities:

> Poor dental care leads to many other physical ailments and exacerbates cardiac issues such as valve issues. Low-cost routine dental care, therefore, also helped avoid high-cost cardiac issues later. Lastly, the impact on lost productivity, school attendance, and job retention cannot be understated. The majority of our Medicaid recipients also work, some more than one job, but by in large are in service-industry jobs that pay very little with no benefits. Those jobs tend to be very susceptible to absenteeism, and when recipients miss days of work due to illness or to go to specialty care, they often lose their jobs. This is a strain on the members as well as employers. (excerpt)

In comments using this theme, Medicaid is portrayed as an enabling condition of well-being; it creates the opportunity for a variety of personal and social goods, such as better health, improved family functioning, stress reduction, decreased healthcare costs, improved productivity, higher school attendance, and employee retention. An investment in a public health insurance program, the logic follows, is also an investment in sectors such as education and the economy.

On the other hand, service providers also discussed constraining factors, and more commonly than other commenters, used setting to evoke limiting structural conditions. Service providers occasionally used setting simply to identify their connection to an area of the state or the context in which they provide services to Medicaid consumers (e.g., "I am a resident physician at a very busy downtown urban hospital"). The following comment uses setting as shorthand for limited opportunity:

> As a physician here in Eastern Ky. we considered Medicaid and Medicare the premium third party payors. When people are caught in an endless loop of poverty with all its attendant problems, Medicaid is a true life saver. Until you have worked in this environment, you can't know how access to health care keeps a community going, in the face of every other horror it has to face. I had a patient who walked 3-4 miles to our clinic for his Medicaid financed health care. Because he was intellectually challenged, he had not gone far in school. There were no jobs he could walk to. He couldn't afford a car, nor drive one if he had one because he didn't have a license. He didn't have a way to drive to town to take the driving test. What would Bevin's ideas done to this man, who through no fault of his own was stuck forever in his life, but without complaining, somehow made it work?

In these comments, service providers depicted unforgiving settings as a foil to their victim characters, whose efforts at self-improvement and program compliance are stymied by the infrastructure limitations of their communities. Challenging settings evoke sympathy for the characters caught within them.

Because our sample contained a limited number of pro-waiver comments, we do not provide a comprehensive comparison of their themes by commenter type. Overall, pro-waiver arguments touched on familiar themes such as concerns about government spending, promoting personal responsibility, and the benefits of work for individuals and societies. Of note is the variation in the use of the specific term "able-bodied" by pro-waiver commenters and those opposed to the waiver. The phrase "able-bodied," which has no formal medical definition, was particularly charged in public debates over Kentucky HEALTH. Advocates opposed to the waiver

questioned its validity as a concept let alone as a basis for restricting access to health benefits (see Agarwal, 2019), and those supporting the waiver wondered why this categorization was not readily understood as a common sense method of sorting the truly deserving from those inappropriately receiving more than their fair share (see Schickel, 2018). The phrase "able-bodied" is used by 14 individuals in our sample of 1100 comments; and while pro-waiver comments are less than 10 percent of our sample, they make up almost half (6 of 14) of commenters using the term. This suggests a focus on personal character traits and deservingness among pro-waiver comments that is also reflected in the five comments by pro-waiver service providers. Pro-waiver service providers claimed to have witnessed ungrateful, selfish, or deceitful behavior by Medicaid consumers, such as in this (excerpted) comment: "Hopefully, these changes would cut down on people running to ER to get out of working. I've seen this with my own eyes, as I work with women who live in a transitional living facility. They fake sick, run to ER, and get fired from their job." Implicit in these comments is the assumption that the undesirable activity witnessed directly by these commenters is widespread, and that the system would be fairer if its rules were better designed to prevent unethical behavior.

DISCUSSION

Both the quantitative and qualitative analyses of public comments in response to Kentucky HEALTH demonstrate that bottom-up narrative construction is quite common. More than 90 percent of comments met the minimum threshold for a narrative, and most exceeded it, mentioning multiple characters or solutions, or evoking a particular setting. Further, we argue that these narratives were strategic, demonstrating "goal-seeking behavior via patterns of narrative element usage" (Jones, 2018, p. 729). While narrative strategies have previously been identified only at the meso level, the evidence of strategy at the micro level is strong: almost all commenters (95 percent) identified their policy positions and selected narrative elements to support those positions. Additionally, narrative elements and storylines differed by commenter type, suggesting meaningful differences in narrative strategy depending on commenters' relationship to Medicaid consumers.[24] As highlighted in the qualitative analysis, these were gripping narratives, revealing deeply personal information and emphasizing the life-and-death consequences of policy choices.[25]

Many of these narratives served to flesh out characters or concepts that remain abstract or reflect composite types at the meso level. For example, meso-level debates over Kentucky HEALTH often involved ethical arguments over new requirements for able-bodied adults. In the micro-level narratives, individuals explain the complexity of operationalizing a clear definition of "able-bodied" and detail their daily struggles to navigate complex systems. They explain why seemingly common sense rules could pose stiff challenges in the context of real people's lives. Individual narratives, to a degree that is strikingly different from typical meso-level stories, feature

[24] Future research should investigate the extent to which narrative strategies differ between the meso and micro level. For instance, are narrative strategies previously associated with the meso level (e.g., the devil-angel shift, conflict expansion/containment) also present at the micro level? Are there other narrative strategies present at the micro level that are less common or absent at the meso level?

deeply personal and private health and emotional information, offered as first-hand testimonial and as evidence for policy positions.

We contend that these narratives were not simply reflections of narratives created at the meso level, as might be assumed when one conceptualizes individuals as primarily narrative consumers. Rather, narratives at all three levels of analysis contain a mix of original content (production) and narratives told and retold by other actors (reproduction). At the meso level, for instance, coordination among actors within political coalitions likely involves cue-taking on narrative form and content. At the micro level, individuals likely absorb and repeat some meso level narratives, but also contribute their own stories (which may then be transmitted up to the meso level). To distinguish between production and reproduction at the micro level, one might examine the extent to which meso-level actors solicit or otherwise shape the narratives of individuals. In the case of Kentucky HEALTH, a substantial number of comments were, in fact, form letters, most notably from groups representing the cystic fibrosis and blood cancer policy communities, though we filtered those comments out of the analysis. While many of the remaining narratives were the result of individuals' responses to questions in a survey, the responses themselves were original, and the survey did not inflate the prominence of narrative communication in the comments. Specifically, comments submitted independently of grassroots mobilization efforts were also densely packed with narrative elements. A two-sample t-test indicated that comments submitted independently contained significantly more narrative elements on average (3.4) than comments responding to a prompt (2.6) ($t = 9.2$, $p < 0.01$).

Our data do not speak directly to the power of these narratives, though the public record suggests that narratives in the public comments influenced both policy and politics. Namely, the federal district court judge who twice struck down the Kentucky HEALTH waiver specifically mentioned the narratives of Medicaid consumers, family members and friends of Medicaid consumers, and social service agency workers in the court's opinion to support the finding that the proposed changes would cause people inadvertently to lose coverage (Stewart & Watson, 2019, pp. 215–217). This is not to say that research-based testimony was not influential; in fact, Judge Boasberg cited 16 comments from advocacy groups whose testimony included evidence from past Medicaid demonstrations. As noted by Stewart and Watson (2019, p. 221), however, the personal stories of Medicaid consumers likely served to "humanize the data," showing "how research translates into practice." In addition, the 2019 governor's election resulted in a win for Democratic candidate Andy Beshear, who campaigned in support of expanded Medicaid; his first televised ad in April of 2019 centered on a child with Type I Diabetes whom Beshear vowed to protect from policies that might deny him health care coverage.

While generally underscoring the importance of micro-level narrative production, these findings also suggest that public comment during rule-making is a rich and meaningful source of narrative. The specificity of purpose and audience may be especially conducive to consistent, clear narrative communication. Suggesting a heightened sense of audience, commenters in our study occasionally broke down the "fourth wall," addressing government officials directly, as in the following (excerpted) comment: "Shame on you Gov. Bevin. When you ran for governor I was an avid supporter. . . I believed you were an advocate of childrens health because of your beautiful family. Boy, was I ever fooled." Future research at the meso level could investigate whether breaking down the fourth wall occurs in other forums, while micro-level research could examine how this practice influences narrative persuasion. In part, our finding of substantial narrative content in the public comments may reflect the fact that the health policy domain is particularly conducive to first-person anecdotes. Other arenas that might also prominently feature experience-

as-evidence include nutrition assistance (and other means-tested government assistance programs), civil rights, and policies affecting children. Future NPF research should thus examine rule-making in other domains to determine the extent to which these findings are generalizable.

Developing Micro-Level Theory

We have identified a considerable gap in NPF micro-level theory and seek in this study to advance the elaboration of a model of the individual-as-policy-narrative-*producer*. We emphasize five areas ripe for further investigation by researchers seeking to develop new micro-level theory. We offer guidance on hypothesis-generation regarding narrator identity and narrator trust, forms of evidence, audience, setting, and the interaction of meso and micro levels.

Hypotheses at the micro level should describe and illuminate the relationship between the policy commenter (narrator) and the target population(s) of the policy. Unlike advocacy groups, which typically have status and reputation as members of a policy community, individuals may not have immediate access to a well-known identity that establishes the validity of their policy opinions and may seek to credential themselves in other ways. They may enhance their credibility and gain the audience's trust by describing themselves in terms of their connection to real people and events affected by the policy in question. This form of self-description may be strategic insofar as it seeks to persuade the audience that the narrator is a direct observer and reliable witness, or it could be reflective of identity-protective cognition, or both. Future research should investigate which aspects of self-description generate the most trust, whether policy networks influence the bounds of acceptable narrator identities, and whether there are effects of congruence/incongruence with narrator self-description. Would a narrator who claims a particular identity, such as a crusading mother, be rewarded for playing to type or punished for violating pre-conceived notions of appropriate behavior for the role?

Future research should also explore whether individuals who employ research-based content—which carries its own authority but may be burdensome to obtain and use—instead of or in addition to anecdote vary in their level and type of self-description from those narrators who rely exclusively on anecdote. These decisions—whether to employ facts or stories (or both), whether to provide few or many personal details and of what kind—likely reflect individual policy narrators' assumptions about their audience's preferences and what will move the audience to adopt the policy option preferred by the narrator. We found it noteworthy that very few commenters in our sample made use of a human rights argument for healthcare access, and that many commenters told of Medicaid saving their lives and lifting them out of poverty. This may reflect an assumption that human rights language would be off-putting to the government agents involved here, and that they would more likely be swayed by tales of Medicaid uplift. Questions of audience become even more interesting when the venue is a public comment process. Public consumption documents—at an individual level, common examples would be social media posts or letters to the editor—have a diffuse audience, but public comments are intended to persuade a government official of some sort. With public comments, understanding the narrator's assumptions about the audience's values simultaneously illuminates assumptions about government values and the narrator's relation to them. Questions of audience values may be particularly salient in debates over redistributive programs like Medicaid, in which policy narrators must make critical assumptions about their audience's perceptions of the deservingness of policy beneficiaries. Hypotheses at the micro level should describe policy narrators' assumptions about audience that are inherent in their strategic decisions regarding forms of evidence, self-description, issue type, and audience type.

Both our quantitative and qualitative analyses demonstrated differences in how commenters used the narrative element of setting. Within NPF studies, setting may be broadly defined as a policy context (legal, discursive, social and economic parameters), as a conceptual place ("the American West") or as a specific geographic place or location. Even with such an expansive definition, investigation of setting is relatively rare in the NPF literature (for an exception, see Merry, 2020). Hypotheses at the micro level should elucidate two aims of the strategic use of setting: enhancing narrator trust and evoking structural constraints on character autonomy. Commenters of all types in our study used setting as a way to enhance narrator trust, by identifying their connection to a locale affected by the policy in question, whether a city, county, region, or the commonwealth. Their connected geographies enhance their legitimacy as narrators in two ways: first, they evoke the democratic concept of the agora, in which residence confers authority to speak, and second, they establish their direct knowledge of the characters and plots they describe. They live and work here, implying that the stories they tell us are those they have experienced or seen first-hand, and they have a personal stake in the outcome as residents of a shared polis. The second direction for future research on setting examines how it can function as shorthand for larger societal forces and influence how we view the characters within a setting. The service providers in our sample used setting more often than other commenter types and were more likely to describe challenging settings that limit the opportunity for upward mobility. The inability of Medicaid consumers to achieve economic self-sufficiency was depicted as a function of a setting's inadequate infrastructure (transportation, internet, medical facilities, available jobs) rather than a personal failing. Descriptions of structurally limiting settings can be a strategy to enhance the worthiness of stigmatized beneficiaries.

Future research may also clarify (or complicate) conceptions of the relationship between micro- and meso-level narratives. Previous NPF schematics of this relationship have relied on the prevailing assumption of individuals as policy consumers. These schemata (see Peterson & Jones, 2016; Shanahan et al., 2017) describe a process in which advocacy coalitions at the meso level generate policy narratives that compete to influence individuals. Aggregated individual opinion becomes public opinion, which influences the policy agenda and may eventually become policy outputs. In these schemata, individuals do not influence advocacy coalitions; instead, they consume and respond to advocates' narratives. Hypotheses at the micro level should examine how individual narratives influence the development of meso-level narratives, the extent to which individual and meso-level narratives are congruent, and how advocacy groups at the meso level strategically engage individuals to generate original narratives, or to amplify themes deemed advantageous by advocacy coalitions. While these hypotheses may blur the boundaries between meso and micro levels, they offer the potential to uncover a more nuanced understanding of narrative contestation and change over time and invite diverse methodologies, including both positivist and interpretivist approaches.

In July 2019, for the fourth time, Judge Boasberg vacated federal approval of a state's Medicaid Section 1115 waiver (Rosenbaum 2019). This time it was New Hampshire's "Granite Advantage"; he had previously ruled against Arkansas's Medicaid program and twice against Kentucky HEALTH. "We have all seen this movie before," he wrote in his decision, rather wearily evoking the pattern of pro-waiver arguments marshaled repeatedly to defend attempts to modify Medicaid eligibility and consumer requirements. His cinematic comment reflects the drama of the policy process at the meso level, with policy actors vying for venues and exploiting every procedural plot twist possible to keep their policies in play. The world of individual-level policy narratives is also cinematically rich in meaning, laden with value judgements and inhabited by

strategic actors. We look forward to future research that will reinvigorate the NPF model of the *homo narrans* as an active participant in the production of policy narratives.

REFERENCES

Agarwal, Sumit. 2019. "Medicaid Work Requirements in Kentucky: Identifying the Able-bodied and Holding them Accountable." *JAMA Network Open* 2(7): e197178.

Baker, Allison M. and Linda M. Hunt. 2016. "Counterproductive Consequences of a Conservative Ideology: Medicaid Expansion and Personal Responsibility Requirements." *American Journal of Public Health* 106(7): 1181-1187.

Berry, Diane S., James W. Pennebaker, Jennifer S. Mueller, and Wendy S. Hiller. 1997. "Linguistic Bases of Social Perception." *Personality and Social Psychology Bulletin* 23(5): 526-537.

Bruch, Sarah K., Myra Marx Ferree, and Joe Soss. 2010. "From Policy to Polity: DemocracyPaternalism and the Incorporation of Disadvantaged Citizens." *American Sociological Review* 75(2): 205-226.

Campbell, Andrea Louise. 2007. "Universalism, Targeting and Participation." In Joe Soss, Jacob S. Hacker, and Suzanna Mettler (eds.), *Remaking America: Democracy and Public Policy in an Age of Inequality*. Boston: MIT Press, 121-140.

Centers for Medicare and Medicaid Services. n.d. "1115 Transparency Requirements." Available from: https://www.medicaid.gov/medicaid/section-1115-demonstrations/1115-transparency-requirements/index.html (accessed September 1, 2020).

Dodge, Jennifer. 2015. "Indication and Inference: Reflections on the Challenge of Mixing Paradigms in the Narrative Policy Framework." *Critical Policy Studies* 9(3): 361-367.

Epstein, Dimitry, Josiah Heidt, and Cynthia R. Farina. 2014. "The Value of Words: Narrative as Evidence in Policymaking." *Cornell Law Faculty Publications. Paper 1243.* Available from: http://scholarship.law.cornell.edu/facpub/1243 (accessed September 1, 2020).

Farina, Cynthia R., Dmitry Epstein, Josiah Heidt, Mary J. Newhart, and CeRI. 2012. "Knowledge in the People: Rethinking 'Value' in Public Rulemaking Participation." *Wake Forest Law Review* 47: 1185-1241.

Fivush, Robin. 1991. "The Social Construction of Personal Narratives." *Merrill-Palmer Quarterly* 37(1): 59-81.

Gilens, Martin. 1999. *Why Americans Hate Welfare: Race, Media and the Politics of Antipoverty Policy*. Chicago: The University of Chicago Press.

Golden, Marissa Martino. 1998. "Interest Groups in the Rule-Making Process: Who Participates? Whose Voices Get Heard?" *Journal of Public Administration Research and Theory* 8(2): 245-270.

Grogan, Colleen M., Phillip M. Singer, and David K. Jones. "Rhetoric and Reform in Waiver States." *Journal of Health Politics, Policy and Law* 42(2): 247-284.

Guetzkow, Joshua. 2010. "Beyond Deservingness: Congressional Discourse on Poverty, 1964-1996." *The ANNALS of the American Academy of Political and Social Science* 629(1):

173–197.

Hancock, Ange-Marie. 2004. *The Politics of Disgust: The Public Identity of the Welfare Queen*. New York: New York University Press.

Hinton, Elizabeth, MaryBeth Musumeci, Robin Rudowitz, Larisa Antonisse, and Cornelia Hall. 2019. "Section 1115 Medicaid Demonstration Waivers: The Current Landscape of Approved and Pending Waivers." Kaiser Family Foundation. 12 February 2019. Available from: https://www.kff.org/medicaid/issue-brief/section-1115-medicaid-demonstration-waivers-the-current-landscape-of-approved-and-pending-waivers/ (accessed September 1, 2020).

Jarlenski, Marian, Philip Rocco, Renuka Tipirneni, Amy Jo Kennedy, Nivedita Gunturi, and Julie Donohue. 2017. "Shaping Health Policy for Low-Income Populations: An Assessment of Public Comments in a New Medicaid Waiver Process." *Journal of Health Politics, Policy, and Law* 42(6): 1039-1064.

Jones, Michael D. 2014a. "Comminicating Climate Change: Are Stories Better than 'Just the Facts'?" *Policy Studies Journal* 42(4): 644-672.

---. 2014b. "Cultural Characters and Climate Change: How Heroes Shape Our Perceptions of Climate Science." *Social Science Quarterly* 95 (1): 1–39.

Jones, Michael D. 2018. "Advancing the Narrative Policy Framework? The Musings of a Potentially Unreliable Narrator." *Policy Studies Journal* 46(4): 724-746.

Kentucky Cabinet for Health and Family Services. 2018. "Monthly Membership Counts by County." 6 August 2018. Available from: https://chfs.ky.gov/agencies/dms/stats/KDWMMCounts20180Aug.pdf (accessed September 1, 2020).

Kentucky Educational Television (KET). 2019. "Andy Beshear Victory Speech: 2019 General Election." 5 November 2019. Available from: https://www.youtube.com/watch?v=u5TJJOIf26k (accessed September 1, 2020).

Lejano, Raul P. 2015. "Narrative Disenchantment." *Critical Policy Studies* 9(3): 368-371.

McBeth, Mark K., Donna L. Lybecker, and James W. Stoutenborough. 2016. "Do Stakeholders Analyze Their Audience? The Communication Switch and Stakeholder Personal Versus Public Communication Choices." *Policy Sciences* 49: 421-444.

Mead, Lawrence M. 2011. "Welfare Politics in Congress." *PS: Political Science & Politics* 44 (2): 345-356.

Meanwell, Emily and Julie Swando. 2013. "Who Deserves Good Schools? Cultural Categories of Worth and School Finance Reform." *Sociological Perspectives* 56(4): 495-522.

Merry, Melissa K. 2016. "Constructing Policy Narratives in 140 Characters or Less: The Case of Gun Policy Organizations." *Policy Studies Journal* 44(4): 373-395.

---. 2020. *Warped Narratives: Distortion in the Framing of Gun Policy*. Ann Arbor, MI: University of Michigan Press.

Mettler, Suzanne and Jeffrey M. Stonecash. 2008. "Government Program Usage and Political Voice." *Social Science Quarterly* 89(2): 273-293.

Michener, Jamila. 2018. *Fragmented Democracy: Medicaid, Federalism, and Unequal Politics.* New York: Cambridge University Press.

Misra, Joya, Stephanie Moller, and Marina Karides. 2003. "Envisioning Dependency: Changing Media Depictions of Welfare in the 20th Century." *Social Problems* 50(4): 482-504.

Musumeci, MaryBeth, Robin Rudowitz, and Elizabeth Hinton. 2018. "Re-approval of Kentucky Medicaid Demonstration Waiver." Kaiser Family Foundation, 29 November 2018. Available from: https://www.kff.org/medicaid/issue-brief/re-approval-of-kentucky-medicaid-demonstration-waiver/ (accessed September 1, 2020).

Pennebaker, James W. 1997. *Opening Up: The Healing Power of Expressing Emotions*. New York: Guilford.

Peterson, Holly and Michael D. Jones. 2016. "Making Sense of Complexity: The Narrative Policy Framework and Agenda Setting." In Nikolaos Zahariadis (ed.), *Handbook of Public Policy Agenda Setting*. Northampton, MA: Edward Elgar Publishing, 106-131.

Rose, Max and Frank R. Baumgartner. 2013. "Framing the Poor: Media Coverage and U.S. Poverty Policy, 1960–2008." *Policy Studies Journal* 41(1): 22-53.

Rosenbaum, Sara. 2019. "'We Have All Seen This Movie Before': Once Again, a Federal Court Vacates HHS Approval of a Medicaid Waiver Experiment." *Health Affairs* 2 August 2019. Available from: https://www.healthaffairs.org/do/10.1377/hblog20190801.892432/full/ (accessed September 4, 2020).

Schickel, John. 2018. "KY HEALTH, Part of State's Medicaid Program, Means Able-Bodied Recipients Contribute." *Northern Kentucky Tribune*, 30 June 2018. Available from: https://www.nkytribune.com/2018/06/john-schickel-ky-health-part-of-states-medicaid-program-means-able-bodied-recipients-contribute/ (accessed September 5, 2020).

Schneider, Anne L. and Helen M. Ingram. 1993. "Social Construction of Target Populations: Implications for Politics and Policy." *The American Political Science Review* 87(2): 334-347.

Seccombe, Karen, Delores James, and Kimberly Battle Walters. 1998. "'They Think You Ain't Much of Nothing': The Social Construction of the Welfare Mother." *Journal of Marriage and Family* 60(4): 849–865.

Shanahan, Elizabeth A., Michael D. Jones, and Mark K. McBeth. 2018. "How to Conduct a Narrative Policy Framework Study." *The Social Science Journal* 55(3): 332-345.

Shanahan, Elizabeth, Michael D. Jones, Mark K. McBeth, and Claudio Radaelli. 2017. "The Narrative Policy Framework." In Christopher M. Weible and Paul A. Sabatier (eds.), *Theories of the Policy Process*, 4th ed. Boulder, CO: Westview Press, 173-213.

Shildrick, Tracy and Robert MacDonald. 2013. "Poverty Talk: How People Experiencing Poverty Deny Their Poverty and Why They Blame 'The Poor.'" *The Sociological Review* 61(2): 285–303.

Sievers, Tjorven and Michael D. Jones. 2020. "Can Power Be Made an Empirically Viable Concept in Policy Process Theory? Exploring the Power Potential of the Narrative Policy Framework." *International Review of Public Policy* 2(1): 90-114.

Skocpol, Theda. 1991. "Targeting within Universalism: Politically Viable Policies to Combat Poverty in the United States." In Christopher Jencks and Paul E. Peterson (eds.), *The Urban Underclass*. Washington, DC: Brookings Institution, 411–436.

Stewart, Cara and Sidney D. Watson. 2019. "Giving Voice to Medicaid: Waivers, Public Comments, and Kentucky's 'Secret Sauce.'" *American Journal of Law & Medicine* 45: 202-223.

Stryker, Robin and Pamela Wald. 2009. "Redefining Compassion to Reform Welfare: How Supporters of 1990s US Federal Welfare Reform Aimed for the Moral High Ground." *Social Politics: International Studies in Gender, State & Society* 16(4): 519–557.

Weible, Christopher M., Kristin L. Olofsson, Daniel P. Costie, Juniper M. Katz, and Tanya Heikkila. 2016. "Enhancing Precision and Clarity in the Study of Policy Narratives: An Analysis of Climate and Air Issues in Delhi, India." *Review of Policy Research* 33(4): 420-441.

Willen, Sarah S. 2012. "How Is Health-Related 'Deservingness' Reckoned? Perspectives from Unauthorized Im/Migrants in Tel Aviv." *Social Science & Medicine* 74(6): 812-821.

Yackee, Jason and Susan Yackee. 2006. "A Bias Towards Business? Assessing Interest Group Influence on American Bureaucracy." *The Journal of Politics* 68(1): 128-139.

Zanocco, Chad, Geoboo Song, and Michael D. Jones. 2018. "Fracking Bad Guys: The Role of Narrative Character Affect in Shaping Hydraulic Fracturing Policy Preferences." *Policy Studies Journal* 46(4): 978-999.

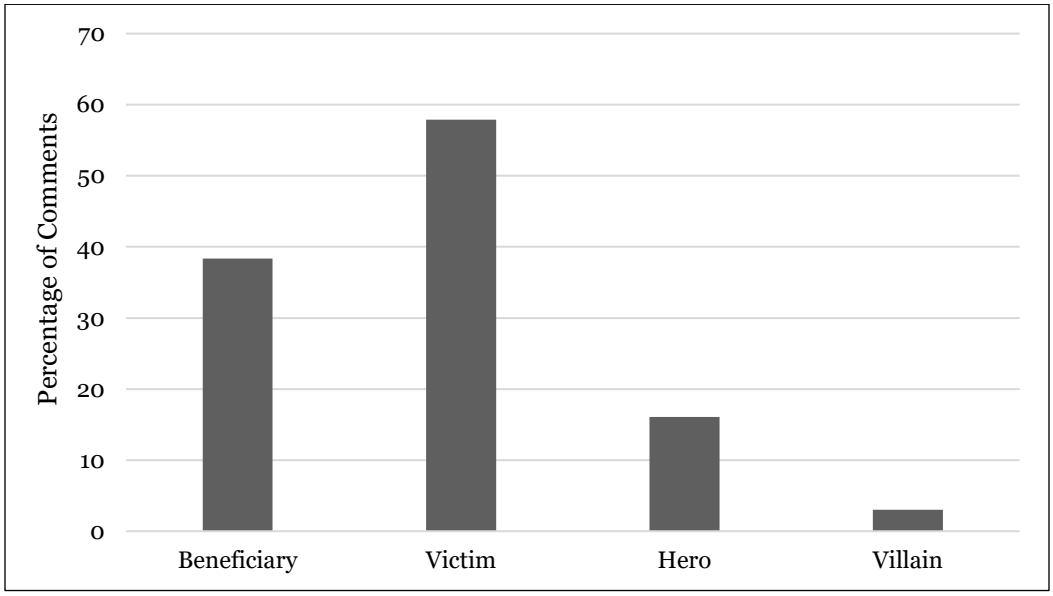
CHAPTER APPENDICES

Appendix A: Content Analysis Categories

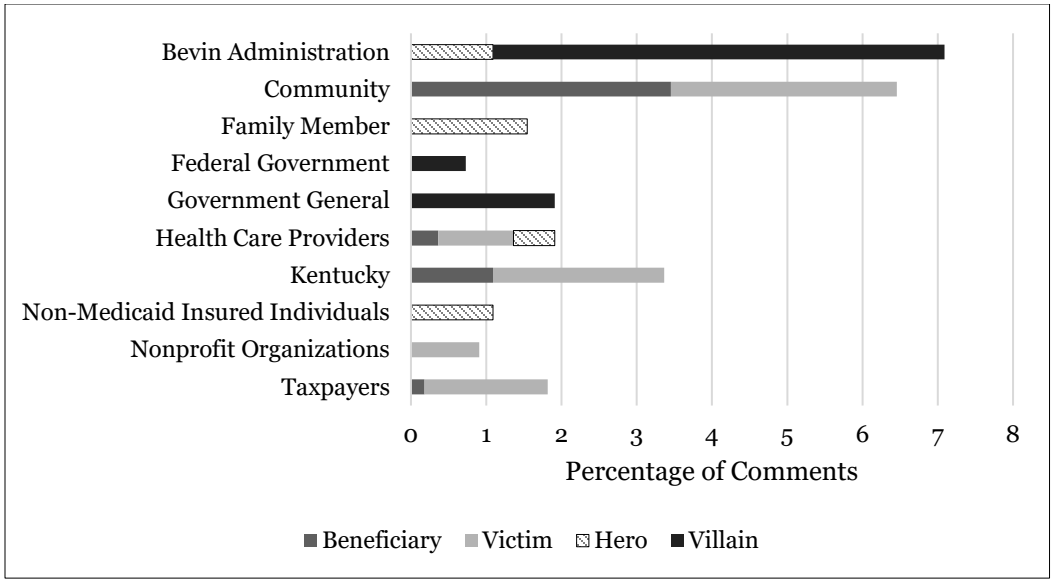
	Attribute	Description	Content Analysis Method	Examples of Words and Phrases
Narrative Elements	Beneficiary	An individual or group receiving a benefit (either in the past, present, or future) (adapted from Weible et al. 2016)	Manual	Medicaid saved my life
	Hero	An individual or group credited for taking action to solve a problem or for engaging in positively constructed behavior (adapted from Shanahan et al. 2017)	Manual	caregiver, hardworking people
	Victim	An individual or group subject to harm (either in the past, present, or future) (adapted from Weible et al. 2016)	Manual	I would lose my coverage
	Villain	An individual or group blamed for wrongdoing (adapted from Merry 2016)	Manual	Bevin is evil, wealthy legislators
	Setting	Reference to a geographic area impacted by a policy or a policy proposal	Automated (dictionary created by authors)	Appalachia, my city, rural area, where we live
	Solution	An enacted policy, a provision of an enacted policy, a policy proposal, or a provision of a policy proposal (adapted from Merry 2016)	Manual	Medicaid, premiums, work requirement, these changes
Non-Narrative Elements	Research	Reference to research, data, or empirical evidence	Automated (dictionary created by authors)	research, data, evidence, studies show, poverty rate
	Medical Knowledge	Reference to medical knowledge	Manual	dental issues can lead to infection
	Quantifying Language	Use of quantifiers	Automated (internal LIWC dictionary)	few, majority, multiple, every, single

Appendix B: Characters in Public Comments on Kentucky HEALTH

Percentages of Comments Portraying Medicaid Consumers as Various Character Types



Percentages of Comments Portraying the Most Commonly Appearing Individuals and Groups as Various Character Types, Excluding Medicaid Consumers



Appendix C: Policy Solutions in the Public Comments on Kentucky HEALTH

Policy Solution or Provision	# of Comments	% of Total Comments
Medicaid (General)	434	39.5
Kentucky HEALTH (General)	286	26
Community engagement (80/month of work or volunteering)	317	28.8
Reporting requirements	157	14.3
Dental benefits	106	9.6
Vision benefits	83	7.5
My Rewards (a program to earn credit toward dental and vision benefits)	9	0.8
Lockouts (a 6-month lockout of coverage for failure to meet requirements)	41	3.7
Premiums	45	4.1
Co-pays	25	2.3
Transportation Assistance	39	3.5
Penalties for unnecessary ER utilization	11	1
Retroactive eligibility	7	0.6

CHAPTER 7: SANCTUARY CITIES, FOCUSING EVENTS, AND THE SOLIDARITY SHIFT: A STANDARD MEASUREMENT OF THE PREVALENCE OF VICTIMS FOR THE NARRATIVE POLICY FRAMEWORK

Aaron Smith-Walter*, University of Massachusetts Lowell
Emily Fritz, University of Massachusetts Lowell
Shannon O'Doherty, University of Massachusetts Lowell

ABSTRACT

Numerous state and local jurisdictions across the United States have adopted policies limiting their cooperation with federal deportation efforts carried out by Immigration and Customs Enforcement (ICE). Sometimes referred to as "sanctuary cities," these jurisdictions interpret federalism in a way that resists active participation in federal immigration enforcement. Employing the Narrative Policy Framework (NPF), we analyze 164 public consumption documents to examine policy narratives disseminated by interest groups engaged in the policy debate surrounding sanctuary cities between 2010 and 2017. Using data derived from a content analysis of these documents, we develop a new measure, the *solidarity shift,* to capture the prevalence of victims in policy narratives; we find there are significant differences in the narrative strategies employed by advocates and opponents of sanctuary jurisdictions, with opponents' narratives demonstrating more active responses to external events and a higher proportion of victims, relative to other characters. We also find that the killing of Kathryn Steinle in San Francisco can be seen as a focusing event because of the narrative actions of anti-sanctuary city advocates and their reliance on the solidarity shift, which resulted in significant changes to anti-sanctuary city narrative strategies.

*Corresponding author: Aaron_SmithWalter@uml.edu

To cite the chapter: Smith-Walter, Aaron, Emily Fritz, and Shannon O'Doherty. 2022. "Sanctuary Cities, Focusing Events, and the Solidarity Shift: A Standard Measurement of the Prevalence of Victims in the Narrative Policy Framework", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan(eds.), Montana State University Library, 166-196.
doi.org/10.15788/npf7

INTRODUCTION

During the 2016 presidential election campaign, Donald J. Trump captured the national spotlight—and the Republican Party nomination—as he staked out a forceful position against undocumented immigrants by promising to "build a wall" to keep them from entering the United States via the US.–Mexico border and to defund sanctuary cities that limit cooperation with federal authorities. A series of tweets related to the killing of Kathryn Steinle by an undocumented immigrant in San Francisco, a sanctuary city, illustrated Trump's opposition to the current state of immigration enforcement. In these tweets, Trump expressed his condolences to the Steinle family, tied her death to an illegal immigrant, and asserted that crimes committed by undocumented immigrants could be curtailed by the building of a border wall (Brown, n.d.).

In this chapter, we explore the relationship between the casting of certain characters in policy narratives as an example of what narrative policy framework (NPF) scholars have identified as *narrative strategies*. Narrative strategies are how policy stories are constructed to achieve particular ends (Jones et al., 2014). For example, political actors who are interested in changing policy might deploy a narrative that portrays their opponents as more powerful and malicious than they are: a strategy named the *devil shift* (Sabatier et al., 1987; Shanahan et al., 2013). This strategy appears when interest groups want to mobilize the base to take political action (Merry, 2016) or when a policy arena is highly intractable because of antagonistic policy beliefs (Sabatier et al., 1987). Although the NPF has used the devil shift to measure the prevalence of villains as a narrative strategy and has developed a corresponding measure to examine the emphasis that policy actors place on heroes (the *angel shift*), there has been much less attention paid (with notable exceptions, e.g., Brewer, 2019; Smith-Walter, 2018) to formulating a standard measure that focuses on victims in policy narratives.

We seek to contribute to existing NPF literature on three important concepts relevant to the study of policy narratives surrounding sanctuary cities: (a) the importance of focusing events, (b) the need for a victim-centric measure analogous to the devil–angel shift, and (c) the importance of federalism for investigating sanctuary city policy debates. This objective gives rise to three distinct research questions:

Research Question 1: To what extent do competing coalitions in the sanctuary city debate differ in their use of the angel shift and devil shift as narrative strategies?

Research Question 2: To what extent do competing coalitions differ in their use of the number of victims as a narrative strategy?

Research Question 3: To what extent do competing coalitions differ in their conception of federalism as a policy belief?

We will answer these questions in this chapter by first reviewing the framework's key components and the literature. We then present the case, data, and methods, followed by our findings. We close the chapter with a discussion of the implications of our findings and the chapter's limitations.

NARRATIVE POLICY FRAMEWORK

The NPF posits that stories, or policy narratives that actors deploy in a policy arena, are important objects of study; they can work as a resource to mobilize, demobilize, convince, cajole, and attract or repel mass publics, political elites, and bureaucratic officials. The NPF posits that

narratives are composed of context-specific *narrative content* and generalizable *narrative form*. The content of a narrative is germane to the policy area in which it is deployed and is resistant to generalizations regarding its impact on policy outcomes. This means the policy narratives on climate change policy are likely to feature characters (e.g., oil companies) and relationships (e.g., modern industry's reliance on cheap fossil fuels) that are not necessarily illuminating when applied to immigration policy. However, the NPF adopts a structural understanding of narrative form and proposes that at least four aspects of policy narratives, (a) *characters*, (b) *setting*, (c) *plot*, and (d) *moral of the story* (Shanahan et al., 2017) are foundational to narratives and are amenable to generalization across policy areas using standard social science methods.

The characters include the hero, who works to bring about a policy solution, and the villain, whose actions cause or threaten to cause harm to a victim. The setting is the social, political, economic, and legal background in which the story is told. The plot relates how the characters interact with one another and the setting through time, and the moral of the story is the solution to the problem that the hero champions (McBeth et al., 2014b). These characters are a key component of the framework, and the presence of *a*t least one character and the presence of a policy referent are required for a policy narrative to exist (Shanahan et al., 2013, p. 457).

Narrative strategies are posited to exist as narrative content and are thus in need of some "anchor" to established systems of meaning to combat the problem of narrative relativity.[26] Anchoring narrative content to structural components, such as the devil–angel shift and other character-based approaches, has been the most common approach to addressing the issue of narrative relativity, although it does not exhaust all possible approaches to making content more generally applicable to multiple policy domains. For example, the causal mechanisms laid out in Deborah Stone's (2012) work have been used as narrative strategies. These studies have found that narratives around bison restoration on public lands that featured villains who intentionally cause harm are more persuasive than those where the harm is mechanical (Shanahan et al., 2014). Different causal mechanisms were also found to be more convincing in a survey experiment on campaign finance reform, although this study found the mechanical cause induced greater support for (and less resistance to) public financing than intentional causation (Jorgensen et al., 2018).

NPF scholars have explored causal mechanisms, such as the growth or reduction in the scope of policy conflict (McBeth et al., 2007), distributions of costs and benefits (Bragg & Soler, 2017; Gupta et al., 2014), and policy actors presenting themselves as "winning" or "losing" in a policy conflict (Gupta et al., 2014; McBeth et al., 2007; Shanahan et al., 2013). However, the most frequently employed and best-tested narrative strategy in the NPF is the devil–angel shift; this is partly because of its association with the advocacy coalition framework (ACF) and partly because it allows characters to be quantified and statistically analyzed. This chapter expands the character-based approach of the devil–angel shift by applying similar measurement logic to victim characters featured in policy narratives.

We now turn our attention to the three theoretical concerns that undergird this chapter. First, we examine the importance of the relationship between an incident occurring and the role that victims play in crafting a narrative that effectively creates a distinct focusing event. Second, the lack of a standard measure for the prevalence of victims (vis-à-vis other characters in NPF studies) and the NPF's existing measure of victim-centric narratives, the *impotent shift,* although extremely valuable in certain cases, does not have the broad applicability needed. Finally, we must acknowledge and account for the vital role that federalism plays in policy development and

[26] A detailed discussion of narrative relativity is outside the scope of this chapter, but see Shanahan et al. (2018, pp. 175–178).

implementation, especially in those policy areas (e.g., sanctuary cities) characterized by conflict between constitutionally distinct spheres of governmental authority.

Focusing Events and NPF Literature

A *focusing event*, defined as an event that can advance the priority of an issue on an agenda by commanding attention in a sudden and noteworthy fashion (Birkland, 1998, p. 53), is a key concept in many policy process studies. As such, the NPF has integrated the concept of focusing events into a number of studies (Lawlor & Crow, 2018; McBeth & Lybecker, 2018; McBeth et al., 2014a; Stauffer 2020). Birkland illustrated the link between a focusing event and narrative strategy by noting that focusing events can serve as a touchstone for groups trying to mobilize support because the event may serve to reorganize the policy priorities on a decision maker's agenda. This reshuffling of priorities can prompt an effort by interest groups to expand the issue to include new policy actors or to resist those efforts and maintain the status quo in the policy subsystem (Birkland, 1998, p. 53). Another important connection is that focusing events are characterized by their harmful or potentially harmful nature. This creates a situation where victims become an integral aspect of policy narratives seeking to use a focusing event to mobilize support.

Birkland (1998) proposed that pro-change groups responding to focusing events will pursue mobilization in a number of ways, including fundraising appeals and invitations to become members of advocacy organizations. Other mobilization strategies are those that ask members and fellow travelers to contact elected representatives to express their concerns, engage in boycotts, or attend public demonstrations. Merry (2018) found that fundraising communications were more likely to rely on the angel shift and that calls for political action were more likely to invoke the devil shift, which supports the dynamic Birkland outlined.

Several NPF scholars have employed the notion of focusing events, including an examination of policy narratives being used to construct a social crisis around increasing rates of obesity in the United States (McBeth et al., 2016). McBeth et al. (2016), drawing on the history of tobacco regulation, noted the process for successfully defining a public crisis, "depends on who is blamed for a problem, *who is harmed*, and who the advocates for change are" (p. 142, emphasis added). Indeed, the need to tell a story that includes sympathetic victims has been identified as a recommendation for public health officials to keep in mind when constructing their communications, but the study reported no investigation of victims.

In a second study, Stauffer (2020) dealt with the implementation of reform to child and adult protective services in Switzerland. The study focused on the distinct effects that cultural differences in the French- and German-speaking cantons had on the structure of implementation and how the murder of two children in German-speaking Zurich served as a focusing event to catalyze discourse and mobilize public opinion.

However, the most expansive examination of the link between focusing events and the NPF may be McBeth and Lybecker's (2018) examination of the rise of sanctuary cities as a policy issue in the United States. This study informs our work most directly in the current chapter. McBeth and Lybecker asserted that policy narratives play a role in creating both a *focusing event* and a flow from the event itself. In this way, they captured the more expansive version of the focusing event (Birkland & Warnement, 2016), which emphasizes their contingent nature and the need for organized advocacy groups to construct the event in a manner that maximizes the chances that policy action will occur.

McBeth and Lybecker (2018) focused on the emergent nature of the issue of sanctuary cities and the ambiguity surrounding an established definition to investigate how policy actors

used their power to advance particular images of these entities in competing policy narratives. The conflict over sanctuary cities saw substantial increases in media attention following the tragic shooting of Kathryn ("Kate") Steinle, which the authors argued became a focusing event for the latest round of elevated discord (McBeth & Lybecker, 2018, p. 873). The study used the devil shift to measure the policy narratives published by *Breitbart News* and advanced by the GOP during the debate on the floor of the US House of Representatives on H.R. 3009, the Enforce the Law for Sanctuary Cities Act. They discovered a strong devil shift in both the *Breitbart* (-0.608) and GOP (-0.593) narratives. It noted that Steinle's accused killer, Jose Ines Garcia Zarante (aka Juan Francisco Lopez Sanchez), was the primary villain and Steinle the primary victim of the *Breitbart* narratives. However, the GOP narratives featured President Obama as the primary villain and the public and Steinle as the primary victim.

The authors argued that this adaptation allowed for a quick expansion of the overall scope of the problem, from a single incident in San Francisco to a nationwide epidemic of crimes committed by undocumented immigrants (McBeth & Lybecker, 2018, p. 885). They noted the policy narrative that featured Steinle as a victim was successful; similarly, horrific events did not manage to become focusing events likely because the Steinle case combined "the right villain, the right innocent victim, the right hero arriving on the scene, [and] the right setting" (McBeth & Lybecker, 2018, p. 885). With this in mind, we hypothesize the following:

> H1: Anti-sanctuary narratives will demonstrate an increase in the devil shift following the shooting of Kathryn Steinle.

As a corollary to this hypothesis, we also hypothesize the following:

> H2: Anti-sanctuary narratives will demonstrate less of a devil shift, and pro-sanctuary narratives more of a devil shift, following President Trump's issuance of Executive Order (EO) 13768.

If this is the case, it suggests we can help identify focusing events by finding those stories that work to identify "the right villain" and "the right hero"; however, we also must be able to identify "the right innocent victim," which allows the policy narrative to effectively make the move from a particular event to a more general problem (McBeth & Lybecker, 2018, p. 885). The NPF can rely on the devil–angel shift to assist as an indicator of the first two components of McBeth and Lybecker's formulation. However, the existing measure cannot begin to account for the latter movement because victims traditionally have been measured in NPF studies without considering their proportionality to heroes and villains.[27] In this chapter, we argue that NPF scholarship should become more attentive to the prevalence of victims in policy narratives, explore existing attempts to measure these characters, and propose a general-purpose measurement that can serve to add a quantitative measure to the NPF that augments the devil and angel shifts, encouraging the expression of all three character types in relation to one another. Before we move on to that, however, we must briefly explore the development of the devil–angel shift in the NPF and what has been discovered about narratives by its deployment.

The Development of the Devil–Angel Shift

The development of the devil shift as a measure of character-based narrative strategy in the NPF is relatively straightforward, but it does contain one crucial mutation that generates a key

[27] We will not explore the movement from the particular to the general that McBeth and Lybecker (2018) laid out; however, we will propose a measure that can allow NPF scholars to more fully incorporate the complete traditional character triad in future NPF analyses.

blind spot in the NPF and that this chapter aims to address. To this end, we review the existing literature to gain a better understanding of the theory behind the measure, the various approaches to using it, and the findings from key studies.

The origin of the devil shift concept can be traced to Sabatier et al. (1987), who explored the tendency for competing elites to perceive their opponents as more malicious and more powerful than they truly are (p. 451). The ACF and the NPF share an affinity for empirical hypothesis testing (Shanahan et al., 2011) and adherence to a social science standard that is "clear enough to be proven wrong" (Sabatier, 2000, p. 137; Jones & McBeth, 2010). The first mention of the devil shift in an explicitly NPF article is found in Shanahan et al. (2011), and it appears as a theoretically derived hypothesis imported from the ACF and was first used for empirical application in Shanahan et al. (2013). The initial use of the measure sought to capture a particular aspect of the devil shift as a strategy by examining the percent of total references to self as hero minus the percent of total villain references to other as villain divided by the total number of heroes plus the number of villains (Shanahan et al., 2013, p. 466). This means the devil–angel shift as reported in 2013 would produce a measure that did not include heroes who were not synonymous with the narrator.

However, Heikkila et al. (2014) noted the devil–angel shift measure described in the Shanahan et al. (2013) piece had a typographical error in the formula for computing the measure.[28] They clarified the measure with Dr. Shanahan, finding the characters to be counted as heroes were not only those identical to the narrator but also all heroes. As such, they used the shift as the "number of references to one's own group/coalition as a hero, minus the number of references to the opposing group/coalition as a villain, and then divides that difference by the number of references to one's own group as a hero plus the number of references to the opposing group as a villain" (Heikkila et al., 2014, p. 193). This expansion to one's coalition as a hero means any hero character was now clearly included in the calculation, not just those references that the group made to itself as a hero, and it has become the preferred measure for computing the devil shift in NPF studies.[29]

In any case, several other NPF studies adopted the earlier formulation of the devil–angel shift. For example, Crow and Berggren (2014) reported the devil–angel shift by counting self as hero minus opponent as villain divided by the total number of characters (p. 148), as did Lebel and Lebel (2018). This is an important observation because it appears others adopted the revised calculation (Gottlieb et al., 2018; Merry, 2016; Smith-Walter, 2018; Smith-Walter et al., 2016; Stephan, 2020) in their computation of the devil–angel shift, thus incorporating a complete accounting for the balance of positive and negative characters in the narrative. These differences are especially salient for the development of our victim-focused narrative measure and will be

[28] It was also in Shanahan et al. (2013) that the devil shift's positive pole was labeled the *angel shift*, creating a measure that associated hero-heavy narratives with a positive strategy. The formulation reported in Heikkila et al. (2014) was the actual measure computed by Shanahan et al. (2013, as cited in Heikkila et al., 2014, p. 202, endnote 9).

[29] However, Heikkila et al. (2014) also noted the possibility that even by taking all heroes and villains into account with the corrected angel and devil shift, the measure may be too blunt, and it lacked the dimension of power—a key conceptual component of the devil shift (p. 200) and an important strand of the discussion that Merry (2009) would later address. Merry's identification of an actor's power, in addition to evilness, as an underplayed aspect of the devil shift is important. Although this chapter does not adopt her recommendation for using Schneider and Ingram's (1993) social construction of target populations as a means for categorizing characters as weak or powerful, the *solidarity shift* measure could be adapted easily to the approach detailed in her 2019 piece.

addressed in further detail below. Before that discussion, we delve into the findings from the devil–angel shift in NPF literature.

Devil–Angel Shift in NPF Studies

Although the devil shift is a widely used measure of narrative strategy across existing NPF studies, for the sake of brevity, here we will examine only two groups of studies within extant NPF literature: gun policy studies (Merry, 2016, 2019; Smith-Walter et al., 2016) and energy policy studies (Gottlieb et al., 2018; Heikkila et al., 2014; Shanahan et al., 2013; Stephan, 2020). This review is intended to illustrate the importance of the standardized devil–angel shift measures in comparing and contrasting studies within policy arenas and across cases and the potential value that a similar victim-focused measurement might have on future efforts to synthesize and systematize case-based NPF findings.

Gun Policy

Gun policy, a highly charged and relatively intractable policy arena, has been the focus of numerous NPF studies and has produced interesting findings. For example, Smith-Walter et al. (2016) found that National Rifle Association (NRA) narratives had a larger devil shift and that it used this strategy more frequently than the Brady Campaign. They also found there were no statistically significant differences between the number of villains appearing in NRA and Brady Campaign narratives in publications intended for their own memberships, although differences between the use of heroes and victims were statistically significant.

Contrary to findings in Smith-Walter et al. (2016) and the NPF hypothesis that the devil shift is more likely to emerge in policy debates seen as intractable (p. 376), Merry's (2016) analysis of 10,000 tweets from the Brady Campaign and the NRA found the Brady Campaign used more villains than the NRA, and the differences in the devil–angel shift between the two groups were small (0.15 for Brady and -0.04 for the NRA). In her 2019 investigation, Merry found there were differences between the use of the devil and angel shifts between the gun rights and gun control coalitions, with the gun control advocates using both the angel and devil shifts more than gun rights organizations (Merry, 2019, p. 899), which is inconsistent with earlier findings in NPF studies in this policy area (Merry, 2016; Smith-Walter et al., 2016).

However, Merry (2016, 2019) and Smith-Walter et al. (2016) both found that gun control advocates used victims in their narratives far more frequently than did the NRA (p. 383).[30] This suggests that although the devil–angel shift results did not align with each other, the heavier reliance of gun control advocates on victims did seem to hold over individual three narrative studies. These findings suggest the role of victims and their relationship to other characters should command more attention from future NPF scholarship.

Energy Policy

We now turn our attention to another area that has received substantial attention from NPF researchers: energy policy. Gottlieb et al. (2018) noted that prior NPF research found that industry and environmental groups were more likely to portray themselves as heroes than they were to cast

[30] While the number of victims compared across gun rights and gun control coalitions was not reported in the text of the findings section, Figure 1 of Merry (2019, p. 894) indicated there were numerical differences in the two coalitions, with gun control groups using more victims than gun rights groups.

other groups as heroes, and narratives from environmental groups were more likely to feature villains than industry-disseminated policy narratives (Heikkila et al., 2014). They also cited Blair and McCormack (2016), who found that conservative sources were more likely to feature industry players as heroes, whereas environmentalists were the protagonist of choice for liberals. They used these findings to hypothesize that coalitions will deploy characters in distinct ways that depend on which side of the debate the narrator finds themself. This is contrasted with findings from a study based on traditional NPF theorizing (Shanahan et al., 2013) that found the winning coalition more frequently used the angel shift, whereas the devil shift was the strategy most often used by the losing coalition.

In their review of four New York county fracking policies, Gottlieb et al. (2018) found that the hypotheses derived from the winning/losing perceptions of the coalition did not hold, and extant NPF research by Crow and Berggren (2014), Heikkila et al. (2014), Shanahan et al. (2013), and Blair and McCormack (2016) demonstrated that anti-fracking groups used victims more than pro-fracking narratives; this suggests (at least in this case) that knowing which groups relied more heavily on victims was a better indicator of policy stance (pro or con) than either the devil or angel shift.

This review is by no means exhaustive, but it does indicate that across these studies, the proportion of victims used seems to vary by the coalition, and this variation corresponds to Gottlieb et al.'s (2018) hypothesis that policy actors are likely to use different narrative strategies based on which side of the conflict they find themselves instead of whether they portray themselves as winning or losing. Therefore, we hypothesize the following:

> H3: There will be differences between pro- and anti-sanctuary narratives concerning the use of the devil shift.

The Impotent Shift

The development of the devil–angel shift is important for NPF scholars to note because the split between these distinct calculations was replicated in recent work by Brewer (2019) in his investigation of the policy narratives surrounding the Columbia River Crossing project in the US Northwest. This piece paid special attention to the role of victims in policy narratives and stands as a notable exception to general underdevelopment of a measurement strategy to address the prevalence of victims in policy narratives. Brewer (2019) used the NPF as a descriptive framework to evaluate the policy debates surrounding a bridge-building project in the US Pacific Northwest and explored whether a narrative strategy exists where the narrator presents themself as a victim. In this work, Brewer (2019) coined the term *impotent shift* to refer to a policy narrative "that emphasizes the victimhood of the narrating individual/group while understating their position as the hero in solving a policy problem" (p. 503).

The *impotent shift* is an important innovation that augments and expands measures of policy strategies at the disposal of NPF scholarship. However, the operationalization of the impotent shift does not aim to capture a general ratio of victims to heroes and villains. By building the measurement for the impotent shift on the foundations of the angel–devil shift measure as formulated in Shanahan et al. (2013), the impotent shift focuses attention on how the narrator characterizes their own role; the definition links the narrator to a narrative strategy in which they assume the victim role while downplaying their efficacy as a heroic bearer of the policy solution (Brewer, 2019, p. 503).

Although this approach is useful in exploring how the narrator positions themself, it does not capture the overall ratio of victim characters present in the narrative relative to other characters. Brewer's approach is more nuanced and is likely to be more precise when seeking to identify and measure the use of the impotent shift as a narrative strategy, but the research reported in this chapter rests on an adaptation of the devil–angel shift as reformulated by Heikkila et al. (2014, p. 192) that sought to express the difference between the total number of heroes and villains in a narrative compared to the total number of characters presented as heroes and villains.

The Solidarity Shift: A Theoretical Basis

This research focuses on the victims presented in policy narratives and their role in building compelling stories. We rely on Nadler's (2020) recognition of two distinct yet fundamentally related human psychological needs, *belonging* and *independence*, to lay the foundation of a victim-centric measure that we term the *solidarity shift.* Unlike the impotent shift, the solidarity shift does not focus on the presentation of the narrator as a victim; instead, it focuses on the need for the narrator to convince their audience to take action on behalf of a third party—in essence, to act in solidarity with the victims portrayed in the policy narrative. When the narrator presents a narrative in which they highlight the harm done to others and the need to intercede on other groups' and individuals' behalf, they are acting on the need for a group sense of belonging, but as Nadler (2020) noted, those providing the assistance may also be "an assertion of superiority, and dependency on others is shameful" (p. 13).

Indeed, Nadler (2020) recounted that Roman philosopher Seneca distinguished between two motivations for assisting others. The first of these, *beneficius*, was the desire to alleviate others' suffering out of a sense of compassion and a lack of any expected reciprocity (p. 14). The second motivation for helping others was named *munus*, which was rendering assistance to others with "the desire to gain fame, honor and prestige in return for kindness" (p. 14). Importantly, both motivations can be expressed by helping others; however, actions intended to strengthen feelings of belonging are rooted in social solidarity (*beneficius*), whereas actions that desire to demonstrate the dominance of one group over another (*munus*) are geared toward the production of relationships of dependence and the maintenance of social hierarchies (Nadler, 2020, p. 15).

Based on the construction of the impotent shift*,* we believe this construct may best reflect a use of the victim character as one that serves to create and justify hierarchical relationships, *munus*. Using the impotent shift, Brewer found neither coalition victimized itself as a narrative strategy (2019, p. 513). However, Brewer noted that "both coalitions saw the use of the victim character as an effective strategy and heavily referred to 'citizens' as the victims of the perceived policy problem" (2019, p. 514). As constructed in this chapter, the solidarity shift captures the overall use and deployment of the victim character and its prevalence compared to other characters in the narrative. The solidarity shift does not distinguish between the use of victims motivated by *beneficius* versus *munus*, but it does capture the general use of victims. This broad measure could be used in conjunction with the impotent shift to devise a distinction between (a) narratives using victims to call for audience participation and involvement in a policy conflict and (b) narratives seeking to establish the narrator as a conduit for change, reinforcing and reifying hierarchical relationships.

One way to understand the underlying social psychological basis for the solidarity shift is by employing the *social identity perspective*, which holds that an individual's identification as a member of a particular group or groups is incorporated into their notion of self, and when group

membership appears to be an important factor in social situations, "an interpersonal interaction is actually an intergroup one" (Nadler, 2020, p. 139). Another component within the social identity perspective is the intergroup helping as status relations (IHSR) model, which is key to understanding intergroup dynamics within structurally unequal systems such as human political formations. The relevant portions of this model suggest assistance given from a privileged group to an underprivileged group is likely to be assistance that functions to cause the less-advantaged group to incur debts to the advantaged group while simultaneously raising the powerful group's prestige and status.

The dynamics of this relationship express the view that "solving the low-status group's problem is the responsibility of the higher-status group" (Nadler, 2020, pp. 153–154). This logic is similar to the logic undergirding the impotent shift in that the hero character—who has the agency as well as a policy proposal, resources, or other attributes that can address the problem—takes on the role of the victim and uses the empathy generated for the victim's plight to increase their power and efficacy. This type of relationship is one in which the high-status group seeks to assist others while maintaining its own place of social dominance in the hierarchy. The NRA is an excellent example of this type of victim utilization; it often casts itself as the target of unconstitutional infringement on its Second Amendment rights or attacks by antagonistic mainstream media outlets. This is then parlayed into requests for money, which it uses to fight for its preferred policy aims.

Although interested in the role of the victim, the solidarity shift does not focus on when the hero adopts the victim persona. Instead, the solidarity shift is interested more directly in the prevalence of victims employed in the policy narrative offered by the narrator—a measure that is more in line with the formulation of the devil–angel shift as operationalized by many NPF studies. Astute readers will note this distinction does not preclude the logic of *noblesse oblige* as a motivation behind their claims to act on behalf of the harmed. However, it does open the door to a motive for helping others by altering those unjust structures producing harm. This type of assistance is egalitarian in its desire because it seeks to eliminate the cause of harm by enhancing the autonomy and agency of the victims, often by appealing to moral outrage (Van de Vyver & Abrams, 2015). This "leveling" desire seeks to build a common identification and solidarity between victims and supporters to mobilize and empower them. As such, we hypothesize the following:

> H4: There will be differences between pro- and anti-sanctuary narratives concerning the use of the solidarity shift.

The Importance of Federalism

Sanctuary cities in the United States can be traced to a response by churches and local communities to the increasing number of people fleeing civil wars in Central America in the 1980s. Eventually, four US states implemented sanctuary policies that provided services and support to immigrants regardless of immigration status, in contravention to the federal stance of denying them refuge (Amdur, 2016, p. 95). Congress responded to this movement by passing the Illegal Immigration Reform and Immigrant Responsibility Act of 1996 (IIRIRA) (Amdur, 2016; Juárez et al., 2018; Macías-Rojas, 2018).

Under the IIRIRA, federal funding for immigration enforcement significantly increased, and a local–federal cooperative program for immigration enforcement, the 287(g) program, was established (Amdur, 2016, p. 99; Juárez et al., 2018). The 287(g) program permitted local law enforcement agencies to enforce immigration law on behalf of the federal government. Some subnational governments warmly embraced 287(g), whereas others met it with virulent opposition.

These latter jurisdictions balked at "the attendant financial burdens and harm to police work" (Amdur, 2016, p. 89) that involvement in immigration enforcement might entail. The 287(g) program enjoyed some initial successes but ultimately generated serious controversy because of racial profiling by local law enforcement agencies.

Another federal immigration enforcement program, "Secure Communities," was created during the George W. Bush presidency and implemented during the Obama administration (Rodriguez, 2017). This program leveraged the long-standing partnership between local law enforcement agencies (LEAs) and the Federal Bureau of Investigation (FBI), whereby arrested individuals' fingerprints were submitted to the FBI. Secure Communities relied on the fact that the FBI forwarded these fingerprints to US ICE. If ICE decided it wanted to take the arrested individual into custody, it would issue a detainer request to the LEA to hold that individual until ICE could collect the person in question (Kandel, 2016).

Secure Communities proved to be extremely effective at removing undocumented immigrants from the United States. Because the Secure Communities mechanisms were activated by the arrest and not the conviction of an individual, vast numbers of people were arrested, detained, taken into custody by ICE, and deported. Johnson (2016) noted that the program resulted in the deportation of "approximately 400,000 non-citizens a year in the first six years of the Obama presidency" (p. 1016). Under Secure Communities, undocumented immigrants reported rising anxiety and fear because LEAs were seen as agents of immigration enforcement (Bhatt, 2017) and not as public servants engaged in protecting residents' lives and properties.

Increasing subnational resistance to Secure Communities led the Obama administration to replace it with the Priority Enforcement Program (PEP). PEP utilized the same mechanisms as Secure Communities, but it refrained from requesting detainers from local LEAs for individuals who were merely arrested and focused instead on those convicted of severe crimes (Johnson, 2016). PEP was operative between 2015 and 2017 until President Trump's EO 13768 reactivated Secure Communities. This order was a partial fulfillment of a campaign promise to take aggressive action against individuals present in the United States without authorization. Given the Trump administration's orientation during this period, we hypothesize the following:

H5: Anti-sanctuary advocates will be more likely to cast the federal government as a hero.

As the above paragraphs illustrate, the policy conflict around sanctuary cities is embedded in the complex web of US federalism. An additional complication is the fact that no legal definition of a sanctuary city exists. However, it is generally understood to relate to the level of cooperation given by subnational governments to immigration enforcement efforts undertaken by ICE. For example, ICE relies on an administrative procedure known as a "civil immigration detainer request" to ask LEAs to maintain custody of undocumented immigrants following their arrest (Manuel, 2015). However, states and localities cannot be compelled to honor these requests because this amounts to an unconstitutional "commandeering" of state resources by the federal government. Because detainer requests are a lynchpin in contemporary federal immigration enforcement strategy, sanctuary policies generally address the level of compliance with these requests or the state and local procedures governing the collection of information regarding residents' immigration status. As such, our definition of a "sanctuary jurisdiction" for this research is any subnational government that through legislation, municipal ordinance, administrative policy, or officially sanctioned means limits or restricts the information collected concerning an individual's immigration status and/or routinely declines to honor ICE civil immigration detainer requests.

Having explored the importance of federalism in sanctuary city policy, we return to McBeth and Lybecker's (2018) study of policy narratives on sanctuary cities and the link they identify between Steinle as a victim of crime-ridden sanctuary cities and Trump's condemnation of these jurisdictions. This allowed the forging of a policy narrative that helped elevate (or perhaps highlight) the public's interest in crimes committed by undocumented immigrants more generally (McBeth & Lybecker, 2018, p. 884). Our research is complementary to that of McBeth and Lybecker, but it is distinct because we explore policy narratives before and after Steinle's shooting and explore whether new policy narratives related to sanctuary cities emerged (2018, p. 887).

DATA AND METHODS

This study focuses on the policy narratives discovered in media sources and interest groups cited in two daily newspapers, the *Boston Globe* and the *New York Times*. We chose these sources because of their geographic location, their place in the top 10 papers in the United States by circulation (Agility PR, 2020), and the fact that both Boston and New York City have active sanctuary policies. These newspapers served as a starting point we used to identify anti-sanctuary and pro-sanctuary advocates active in this policy arena.

We conducted a search in the *Boston Globe* and the *New York Times* archives between 2010 and 2017 for mentions of sanctuary cities to identify published news articles pertaining to the sanctuary city debate in the United States. After examining the articles from this search, we identified key pro- and anti-sanctuary organizations mentioned in the articles' text. We further narrowed our pool of organizations by only including organizations with websites. The logic behind this choice was that if someone was exposed to the sanctuary city controversy via mainstream newspapers, then they would be likely to turn to the website of the organization mentioned in the paper to learn more. We then searched each organization's website for the term "sanctuary city," which yielded 559 documents from the organizations listed below.

- American Immigration Lawyers Association (AILA)
- American Civil Liberties Union (ACLU)
- Boston Globe
- Center for Immigration Studies (CIS)
- Centro Presente
- Families for Freedom
- Irish International Immigration Center
- The Center for American Progress
- The National Council of La Raza (now UnidosUS)
- The National League of Cities
- The New York Times
- Service Employees International Union
- US Conference of Mayors
- Make the Road New York
- Migration Policy Institute
- Major County Sheriff's Association

We then evaluated these documents for their conformity to the following criteria:

1. Must contain a policy narrative
2. Must reference "sanctuary" within the text
3. Must have been published between January 1, 2010, and December 31, 2017

After eliminating documents that fell outside these guidelines, 282 documents remained. We then randomly selected 164 documents to code, which we then coded to create the data analyzed in this study. We arrived at this number of documents by calculating the required sample size to achieve a 95% confidence level with a ±4.88% margin of error. We coded for the presence or absence of characters (heroes, villains, and victims). Researchers coded for the stance of the document narrator on sanctuary policies. Narrators in 64 documents approved of sanctuary policies; 66 narratives displayed opposition; and 31 documents were unclear in their stance in that they mentioned the controversy but did not take a stand on whether they supported or opposed sanctuary city policies[31] (researchers disagreed about the nature of three narratives, and we ultimately excluded those narratives from the analysis). We generated the codebook using inductive and deductive techniques (see Appendix A for intercoder reliability metrics).

Tests and Measures

To test our hypotheses, we used two existing NPF measures: the devil–angel shift (Heikkila et al., 2014) and McBeth et al.'s (2010) measure of federalism. The third measure was the solidarity shift, which we developed theoretically in the early parts of this chapter. Our statistical analysis employed the Kruskal–Wallis H test (the nonparametric equivalent of one-way ANOVA) and the Mann–Whitney U test (the nonparametric equivalent of an independent samples t-test) to test our hypotheses.

We used the Kruskal–Wallis H and Mann–Whitney U nonparametric tests for several reasons. First, by constructing a series of histograms, we concluded that the distribution of data for our variables of interest was skewed. Second, the number of narratives present in the media environment during the period under study was limited in reference to our two focusing events, with pro-sanctuary narratives being scarce before the Steinle shooting (N = 5, 7.8% of all pro-sanctuary narratives) and anti-sanctuary narratives being reduced significantly following the issuance of EO 13768 (N = 10, 15.2% of all anti-sanctuary narratives).

Devil–Angel Shift Measure

The devil shift has been used in previous NPF research and deals with the prevalence of villains in policy narratives. The devil shift is described as an argument that presents a group's "opponents as 'devils,' i.e., as being more powerful and more 'evil' than they actually are" (Sabatier et al., 1987, p. 451). As such, in this chapter, we adopt the following formulation put forth by Heikkila et al. (2014, p. 192).

To compute the devil shift, we relied on the following formula for a document-level statistic:

$$H - V / H + V =$$

[31] These organizations were primarily the professional organizations of local and state law enforcement officers who took pains not to comment on policy but opted to concentrate on the danger that local involvement in immigration enforcement would have on community policing efforts. As such, we removed those narratives from this analysis.

Where:

V = Total number of villains
H = Total number of heroes

This resulted in a value ranging from -1 to 1. Negative values are indicative of the presence of the [. . .], and positive values are labeled as an angel shift.

Federalism–Localism Measure

A key factor in the development and enforcement of immigration policy in the United States is federalism. Immigration enforcement traditionally has been recognized as a federal duty, which suggests anti-sanctuary advocates would be more likely to point to federal actors as heroes because they desire more stringent enforcement. By the same token, those in favor of the actions of subnational governments to establish sanctuaries would be more likely to lionize state and local governments, whose cooperation (or lack thereof) with federal programs could significantly degrade the efficacy of immigration enforcement. As such, we modified the measure proposed by McBeth et al. (2010) by substituting heroes for "allies" and restricting these categories to those characters with a clear federal, state, or local affiliation. This modification is required because the measure in McBeth et al. (2010) initially was devised to explore the evolution of policy views of a single interest group, and it thus held the narrator constant as the narrative's hero. Therefore, it conceived all other supporters of the policy as allies. In our study, the identity of the narrator was not constant, so we did not use the hero–ally distinction; this meant those with a role in advancing a possible solution were included in the hero category. This resulted in the calculation of the federalism measure, as follows:

$$F - (S + L) / F + (S + L) = \text{Federalism}$$

Where:

F = Federal-level heroes
S = State-level heroes
L = Local-level heroes

The Solidarity Shift Measure

NPF scholarship has concerned itself with the power of villains (Zanocco et al., 2018) and heroes (Jones, 2014); however, victims have received less attention. This is especially important for this issue because undocumented individuals, who are most likely to be harmed by increased enforcement, cannot generally cast votes[32] for lawmakers. As such, we hypothesize that painting a compelling picture of those hurt by action against sanctuary jurisdictions would be fundamental to convincing those with formal standing in the electoral process to take action. Therefore, pro-sanctuary narratives should feature more attention to those hurt by the current state of affairs. To measure the solidarity shift of a policy narrative, we computed a measure that operates on a -1.00 to +1.00 scale.

$$VI - (H + V) / VI + (H + V) = \text{Solidarity shift}$$

[32] [i] Connecticut, Delaware, and New Mexico allow noncitizens to vote in municipal elections.

Where:

VI = Total victims
H = Total heroes
V = Total villains

Higher values indicated a higher proportion of victims relative to the other total count of the two characters.

FINDINGS

The first factor to note about our findings is that the total number of characters in pro- and anti-sanctuary narratives did not demonstrate a statistically significant difference ($p = .979$); what differed were the types of characters that the two groups employed. The average number of heroes deployed by pro-sanctuary narratives was 2.38 per narrative, whereas anti-sanctuary stories featured only 1.83 heroes per story. This difference was statistically significant ($p = 0.033$). Pro-sanctuary narratives demonstrated lower numbers of villains in their narratives (2.56 vs. 5.14, $p < 0.001$) and a higher number of victims (4.63 vs. 2.44, $p < 0.001$). With these contextual differences established, we now turn to the findings directly relevant to our hypotheses.

Table 1. Results of Hypothesis Testing

Hypothesis	Supported	
	Yes	No
H1: Anti-sanctuary narratives will demonstrate an increase in the devil shift following the shooting of Kathryn Steinle.		X
H2: Anti-sanctuary narratives will demonstrate a decrease in the devil shift following President Trump's issuance of EO 13768.		X
H3: There will be differences between pro- and anti-sanctuary narratives concerning the use of the devil–angel shift.	√	
H4: There will be differences between pro- and anti-sanctuary narratives concerning the use of the solidarity shift.	√	
H5: Anti-sanctuary advocates will be more likely to cast the federal government as a hero.	√	

H1: Anti-sanctuary narratives will demonstrate an increase in the devil shift following the shooting of Kathryn Steinle.

Although the policy narratives demonstrated some interesting changes following the shooting death of Steinle, we did not find confirmation for *H1*; the only statistically significant differences in the structure of anti-sanctuary narratives following the shooting were a change in the federalism measure (with -1.00 meaning only state/local heroes and +1.00 meaning only federal heroes), moving from one measure that was slightly more likely to mention state and local governments as heroes (mean value of -0.0522) to a narrative structure with a heavier emphasis on federal actors as heroes (mean value of .3810). No such shift was seen in pro-sanctuary narratives. This lends support to McBeth and Lybecker's (2018) findings that focusing events may open narrative windows to which groups can respond or remain committed to existing narrative formulations.

The narratives' devil–angel shift did not change following the shooting, nor did a statistically significant change emerge in the mean number of heroes, victims, or villains deployed

in any of the narratives. This suggests a closer look at the heroes used by anti-sanctuary narratives is needed, and we now examine that aspect. The most common heroes in anti-sanctuary narratives before the shooting featured particular pieces of legislation (35% of narratives), state government officials (26%), local law enforcement (26%), ICE (22%), and anti-sanctuary activists (17%). After the shooting, anti-sanctuary activists were characterized as heroes in 40% of the narratives; likewise, ICE increased its heroic portrayal to 30% of the post-shooting narratives, as well as legislation (28%), Congress (23%), and Donald Trump (23%). This pattern of local to general character casting comports with McBeth and Lybecker's (2018) findings when they traced the narratives from *Breitbart* to the speeches of GOP members on the House floor.

Table 2. Heroes in Sanctuary City Narratives (Pre- and Post-Shooting of Kathryn Steinle)

Hero	% in Pre-Shooting Narratives	% in Post-Shooting Narratives	Change	Mann–Whitney U	Asymp. Sig. (2-tailed)	Cohen's *d*
Legislation	0.35	0.28	-0.07	460.5	0.565	0.149 (Small)
State Gov. Officials	0.26	0.2	-0.24	377.0	***0.003****	***0.716 (Medium)***
Local Law Enforcement	0.26	0.14	-0.12	434.5	0.227	0.300 (Small)
ICE	0.22	0.30	+0.08	452.5	0.464	0.180 (Small)
Anti-Sanctuary Activists	0.17	0.40	+0.23	385.0	0.068	0.517 (Medium)
Congress	0.9	0.23	+0.14	422.5	0.147	0.384 (Small)
Donald Trump	0.0	0.23	+0.23	379.5	***0.013****	***0.762 (Medium)***

*Significant at the $p < 0.05$ level

Of these changes, two are statistically significant. The first shift is the casting of state government officials as heroes in one-quarter of the anti-sanctuary narratives before the shooting of Steinle to a virtual absence in those stories following the shooting. The second is the emergence of Donald Trump as a key hero in post-shooting narratives from a complete absence in pre-shooting narratives. This transition also bears a striking resemblance to the focus on Obama as a

villain in the GOP floor speeches (McBeth & Lybecker, 2018) and points to a narrative pattern of moving to establish the "right hero" and the "right villain" to construct an effective narrative to construct a focusing event. This finding shows that the policy entrepreneurs at the CIS echoed Donald Trump's series of tweets in the aftermath of the shooting, which sought to acknowledge the tragedy and to use the event to call for a policy response and vilify opponents. On July 3, 2015, Trump tweeted: "My heartfelt condolences to the family of Kathryn Steinle. Very, very sad!" This was followed by a second tweet later that day attacking Marco Rubio (a competitor for the 2016 Republican presidential nomination): "@marcorubio what do you say to the family of Kathryn Steinle in CA who was viciously killed b/c we can't secure our border? Stand up for US." Then, pivoting to a policy statement in support of Kate's Law (H.R. 3004, 2017), 10 days later Trump tweeted: "I absolutely support Kate's Law—in honor of the beautiful Kate Steinle who was gunned down in SF by an illegal immigrant" (Trump Twitter Archive, 2020).

H2: Anti-sanctuary narratives will demonstrate less of a devil shift, and pro-sanctuary narratives more of a devil shift, following President Trump's issuance of EO 13768.

After the Trump administration issued its EO titled "Enhancing Public Safety in the Interior of the United States" (EO 13768), we noted several changes in the narrative environment and the narrative form employed by both sides of the debate. The number of pro-sanctuary narratives issued in the 85 months before EO 13768 (n = 31) averaged 0.36 per month, but this number spiked to 15.97 per month (n = 33) following it. Whereas the number of anti-sanctuary narratives in the pre-EO period (n = 56) averaged 0.65 narratives per month, this increased to 4.84 per month following the administration's action (n = 10). Although the data are limited given the small sample size for anti-sanctuary narratives in the post-order period, the trend suggests that overall narrative production increased on both sides, but a much greater increase was seen on the pro-sanctuary side.

Although we noted a quantitative change in the number of narratives, contrary to our hypothesis, we did not see any significant change in the use of the devil–angel shift following the issuance of EO 13768. Using the Kruskal–Wallis H test for pro-sanctuary narratives to test pre- and post-EO narratives (pre = 32.02, post = 32.95, $H = 0.41$, $p = 0.840$), we saw no evidence for our hypothesized increase in the angel shift. Likewise, the anti-sanctuary stories did not evince a statistically significant change (pre = 32.08, post = 41.45, $H = 2.050$, $p = 0.152$). This suggests that although a decisive shift in the policy arena resulted in each side increasing its overall narrative output, it did not seem to affect the use of either the angel or devil shift as a narrative strategy. Similarly, it did not affect the use of the solidarity shift by pro-sanctuary (pre = 32.55, post = 32.45, $H = 0.000$, $p = .984$) or anti-sanctuary sides (pre = 34.04, post = 30.55, $H = 0.283$, $p = 0.595$). Groups also did not alter their portrayal of federalism; no differences were seen between pro-sanctuary (pre = 31.21, post = 33.71, $H = 0.348$, $p = 0.555$) or anti-sanctuary stories (pre = 32.10, post = 33.71, $H = 0.942$, $p = 0.332$). This finding supports Gottlieb et al.'s (2018) and Chang and Koebele's (2020) findings that the orientation toward a policy is more indicative of a narrative strategy than is a group's positioning as either "winning" or "losing" in a policy contest (Shanahan et al., 2013).

We did not observe differences in the devil–angel shift between pre- and post-EO 13768 anti-sanctuary narratives, but there were differences in the absolute number of villains and victims and the total number of characters in the narratives. As with the narrative variation associated with Steinle's shooting, we saw significant differences emerge only in anti-sanctuary policy narratives.

We saw villains in anti-sanctuary narratives shift from a mean of 5.54 villains per narrative to only 2.90 villains following EO 13768 (Mann–Whitney U 140.0, $p = 0.007$). Pre-EO 13768 anti-sanctuary narratives had a total mean use of 2.61 victims, whereas post-order narratives deployed a mean of 1.50 victims (Mann–Whitney U 167.5, $p = 0.040$). The mean number of all characters fell from 10.07 in pre-order narratives to 5.70 in anti-sanctuary post-order narratives (Mann–Whitney U 127.5, $p = 0.006$, Cohen's $d = 1.085$). This might suggest that the need to push a narrative with more characters becomes (at least temporarily) less important following a substantive "victory" in a policy contest.

Those narratives appearing before EO 13768 featured sanctuary jurisdictions (93% of narratives), undocumented immigrants (84%), criminals (77%), President Obama (57%), and local government officials (30%) as the most common villains. After the order, we found that sanctuary jurisdictions were characterized as villains in 70% of the narratives; criminals were portrayed as villains in 60%; undocumented immigrants in 50%; and Obama, local law enforcement, and local government officials each in 20%.

Table 3. Villains in Sanctuary City Narratives (Pre- and Post-EO 13768)

Villain	% in Pre-EO Narratives	% in Post-EO Narratives	Change	Mann–Whitney U	Asymp. Sig. (2-tailed)	Cohen's *d*
Sanctuary Jurisdictions	0.93	0.70	-0.23	216.0	***0.032****	***0.593 (Medium)***
Undocumented Immigrants	0.84	0.50	-0.34	185.0	***0.016****	***0.746 (Medium)***
Criminals	0.77	0.60	-0.17	233.0	0.267	0.359 (Small)
Local Government Officials	0.30	0.20	-0.10	251.0	0.508	0.225 (Small)
Obama	0.57	0.20	-0.27	176.0	***0.032****	***0.801 (Large)***
Local Law Enforcement	0.23	0.20	-0.03	271.0	0.825	0.071 (Small)

*Significant at the $p < .05$ level

After Trump signed the EO, there were significant changes in the frequency with which sanctuary jurisdictions, undocumented immigrants, and President Obama were featured as villains. The overall number of villains in the anti-sanctuary narratives fell, and three of the six most prevalent villains also demonstrated a statistically significant decrease.

Narratives appearing before the EO showed that victims of crimes committed by undocumented immigrants (50% of narratives), the general public (41%), public safety (41%), ICE (16%), and taxpayers (14%) were the most common victim types. After EO 13768, victims of crimes committed by undocumented immigrants dropped as a class of victim to only 40% of the narratives, the general public increased to appearing in 50%, and families increased to appearing in 30%. We noted that public safety, ICE, the US Constitution, taxpayers, and the economy were all featured as victims in 20% of narratives.

Table 4. Victims in Sanctuary City Narratives (Pre- and Post-EO 13768)

Victim	% in Pre-EO Narratives	% in Post-EO Narratives	Change	Mann-Whitney U	Asymp. Sig. (2-tailed)	Cohen's *d* (effect size)
Victims of Crimes	0.50	0.40	-0.10	252.0	0.563	0.194 (Small)
General Public	0.41	0.50	+0.10	255.0	0.602	0.176 (Small)
Families	0.13	0.30	+0.17	231.0	0.158	0.409 (Small)
Public Safety	0.41	0.20	-0.21	221.0	0.209	0.456 (Small)
ICE	0.16	0.20	+0.04	269.0	0.761	0.101 (Small)
Taxpayers	0.14	0.20	+0.06	264.0	0.645	0.154 (Small)
U.S. Constitution	0.02	0.20	0.18%	229.0	***0.011****	***0.575 (Medium)***
The Economy	0.13	0.20	0.07%	259.0	0.528	0.184 (Small)

*Significant at the $p < 0.05$ level

H3: There will be differences between pro- and anti-sanctuary narratives concerning the use of the devil–angel shift.

The statistics related to the devil–angel shift showed that pro-sanctuary narratives (n = 64) had only a slight devil shift (mean -0.0753). Anti-sanctuary narratives (n = 66) were found to have an average devil shift of -0.495, indicating these stories contained a higher ratio of villains to heroes than did the pro-sanctuary narratives. Using the Mann–Whitney U test, pro-sanctuary narratives were found to be significantly different from anti-sanctuary narratives in their use of the angel shift, with a considerably strong effect size (U = 974.0, z = -5.316, p = 0.00, Cohen's d = 0.999). The direction of the effect and the statistical significance lend support to our hypothesis that anti-sanctuary groups would be more reliant on the use of the villain character in their policy narratives. This finding provides evidence that anti-sanctuary narratives present stories with a higher ratio of villains to other characters, which may help catalyze their strategy of employing a view of immigrants as criminals (e.g., García Hernández, 2013; Cházaro, 2016).

H4: There will be differences between pro- and anti-sanctuary narratives concerning the use of the solidarity shift.

Our fourth hypothesis sought to determine whether differences were observable between policy narratives in the realm of sanctuary policy debates regarding the proportion of characters who were victims as opposed to heroes or villains. The mean value of the solidarity shift for pro-sanctuary narratives was 0.506 and for anti-sanctuary narratives was 0.609. The results of the Kruskal–Wallis H test indicated there were certainly differences between the narratives along this line (H = 7.93, p = 0.019), and further examination with Mann–Whitney U found there was a significant difference between pro- and anti-sanctuary narratives; however, the effect size was weak (U = 1643.5, z = -2.188, p = 0.029, Cohen's d = -0.307). Again, we see that anti-sanctuary narratives employed a higher ratio of victims compared to pro-sanctuary narratives. This fact further plays into the strategy of depicting immigrants as predators who harm law-abiding US citizens. Indeed, the field of rhetorical battle could be interpreted as one dealing with competing conceptions of public safety as well as how the integration of federal, state, and local authorities can best be structured to aid law enforcement in achieving its goal of protecting the public from crime.

H5: Anti-sanctuary advocates will be more likely to cast the federal government as a hero.

Given the importance of federalism in this issue and the generally recognized federal predominance in immigration policy, we hypothesized that anti-sanctuary narratives would cast the federal government (and its agents) as heroes. The mean value for pro-sanctuary narratives was 0.266 and for anti-sanctuary narratives was 0.697. The Kruskal–Wallis H test found that differences existed between the narratives (H = 11.934, p = 0.003), and anti-sanctuary narratives favored federal heroes by a wide margin. Using Mann–Whitney U, we found pro- and anti-sanctuary narratives differed from each other, and this difference was statistically significant, with a medium effect size (Becker, n.d.) on Cohen's d (U = 1475.50, z = -3.070, p = 0.002, Cohen's d = -0.0584).

This finding is counter to recent scholarship, which found that partisanship generally was not predictive of any particular preferences associated with federalism (Rendleman & Rogowski, 2020, p. 17).[33] However, Rendleman and Rogowski (2020) noted large majorities of both Democrats (76.2%) and Republicans (79.1%) prefer subnational governments take the lead in law

[33] When examining ideology instead of partisanship, Rendleman and Rogowski (2020) found that those individuals with higher scores on a measure of liberal ideology preferred a stronger federal government, and those with a more conservative ideology preferred greater subnational governmental power; however, the nature of this study and that of Smith-Walter (2018) is such that effectively disentangling ideology and partisanship based on analyzing policy narratives is impossible.

enforcement (p. 14). Interestingly, the opposite pattern was demonstrated in terms of foreign affairs, with only 22.6% of Democrats and 20.9% of Republicans preferring subnational dominance over this policy area. Sanctuary cities may represent a case where overall preferences for local control of law enforcement and federal dominance in foreign affairs collide. This dynamic is especially interesting when considered in tandem with another recent fight revolving around federalism concerns, the Affordable Care Act (ACA), where states with Republican governors sued the US Department of Health and Human Services over the individual mandate and the Medicaid expansion to claim states were victims of federal overreach (Smith-Walter, 2018). Instead, the argument we saw presented over sanctuary cities inverted the traditional positions of liberals and conservatives, with anti-sanctuary conservatives demanding that states toe the federal line on immigration policy and pro-sanctuary liberals arguing for subnational governments' right to create their own communities free from federal meddling (Young, 2006).

DISCUSSION

In this chapter, we set out to answer three major research questions and extend the work done by McBeth and Lybecker (2018) on the utility of the concept of focusing events (Birkland & Warnement, 2016) in the study of policy narratives on the emerging public controversy surrounding sanctuary cities. Specifically, these questions were as follows:

Research Question 1: To what extent do competing coalitions in the sanctuary city debate differ in their use of the angel shift and devil shift as narrative strategies?

Research Question 2: To what extent do competing coalitions differ in their use of the number of victims as a narrative strategy?

Research Question 3: To what extent do competing coalitions differ in their conception of federalism as a policy belief?

Looking at the characteristics of anti-sanctuary narratives using the devil–angel shift, McBeth et al.'s (2010) measure of federalism, and the newly devised solidarity shift, we found that the murder of Kathryn Steinle was followed by a narrative movement toward federal-level actors as heroes by anti-sanctuary actors. We also found that anti-sanctuary narratives demonstrated a higher mean score (0.609) than pro-sanctuary groups (0.506) on the solidarity shift, and the difference was statistically significant ($p = 0.29$). This means that anti-sanctuary stories featured a higher number of victims relative to the other characters, although the pro-sanctuary narratives contained a higher average number of victims per narrative. When we couple this finding with the results of the devil–angel shift measure, we can begin to fully appreciate the value that the solidarity shift adds to the NPF's ability to characterize policy narratives. For example, we see the anti-sanctuary narratives had a higher devil shift score, a tendency to feature federal-level actors as heroes, and a higher reliance on victims relative to the number of heroes and villains.

Taken together, the "right innocent victim" in a narrative sense might mean appreciating the *types* of victims used in the narratives, the *ratio* of victims used relative to other characters, and an effective *pairing* of the victim with a suitable hero who is capable of effectively confronting the villain. As such, we should take the quality and quantity of victims employed in narratives quite seriously because doing so provides a more complete picture of the relationship among the three key character types used in NPF studies. The solidarity shift can help round out a system of

summary statistics better captures the internal dynamics of policy narratives across policy subsystems.

When exploring pro-sanctuary narratives, we found these narratives were more angel-shifted, less solidaristic, and more friendly toward local and state authorities. This contrasts with anti-sanctuary narratives, which were more devil-shifted, more solidarity-shifted, and more oriented toward federal authorities. Initially, this result might seem illogical. After all, are not sanctuary cities all about the harm done to undocumented immigrants? Should not victims feature more prominently? We saw that although pro-sanctuary narratives featured more victims than anti-sanctuary policy narratives (4.63 vs. 2.44), anti-sanctuary narratives had a higher proportion of victims compared to all characters. However, it is possible that the absolute *number* of victim characters may not be as important as the *specific* proportion of characters who are victims relative to heroes and villains.

Additionally, we failed to see any major changes in the narrative strategy on the part of pro-sanctuary advocates following either Steinle's shooting or the issuance of EO 13678. This suggests they were unable to effectively create a counternarrative to the one that anti-sanctuary advocates developed using Steinle's death as a focusing event. This led us to suspect that dynamism surrounding policy narratives is something that should not be overlooked when conducting NPF studies. The movement from local to federal heroes in anti-sanctuary narratives is one indicator for which NPF scholars and analysts can look when attempting to identify casting in policy narratives that may result in the construction of a focusing event. Indeed, policy actors and interest groups might consider replicating the approach used in this chapter to create a conceptual map of the media space (both printed and digital) and the narratives circulating within it. This map could be updated with a certain regularity, made easier by developing auto-coding methods (see Wolton et al., in this volume) to gain insight into the occurring narrative adaptations. When particular narrative formulations make the leap from the media environment to the political agenda, with casting adaptations from the particular and the local to the general and the national, narrative scholars would do well to sit up and take notice.

Future NPF research efforts might consider the creation of a system of narrative collection and analysis in vital policy areas; this system could be conceived as analogous to the monitoring of the spread of communicable diseases performed by epidemiologists. In other words, when the mutations within the set of characters slow appreciably and stabilize around a single basic assemblage of characters (the "right hero," "right villain," and "right innocent victim"), narrative scholars should be alert for the potential for the narrative to "jump species" from media and interest group communication to authoritative policy-making venues. This is especially applicable if the narrative features a recent transition to a hero (or heroes) who controls institutions with the authority to act on a particular policy controversy.

Such a monitoring program might also explore whether the narratives produced by the opposing coalition in response to the emergent focusing event manifested an identifiable strategic response. One such strategic response might be the production of narratives intent on expanding the scope of conflict. NPF scholars could identify this strategy by paying attention to the proportion of heroes and victims (an angel shift, coupled with a moderate to large solidarity shift with a stable federalism measure) featured in their policy narratives. An alternative strategy might seek to create narratives featuring dangerous villains at other levels of government (a devil shift with a large solidarity shift and a federalism measure swinging away from the government level where the opposition chalked up its recent win), with the idea that shifting to alternative policy venues might provide a strategic advantage to "check" future political gains made by their opponents. In any

event, it is important to stress that future research will benefit from mapping the ebb and flow of a narrative's emphasis on all three primary characters contained in policy narratives.

Although this study has sought to illuminate the differences in policy narrative deployed by various groups, it is subject to certain limitations. First is the limited diversity in the groups that authored anti-sanctuary narratives. The CIS featured all the narratives in our study, although multiple different contributors authorized it to do so. This may present a limitation on our findings' generalizability to parts of the nation where the *New York Times* and the *Boston Globe* are not major media outlets. Another weakness concerns the fact that the areas we explored (i.e., Boston and New York City) have political cultures that are strongly aligned with the Democratic party. In addition, more than 28% of Boston's population and 37% of New York City's population are foreign-born (US Census, 2017a, 2017b). Many of the interest groups included in this study are national in scope, but the inclusion of media from metropolitan areas that do not have sanctuary ordinances and those with lower numbers of foreign-born residents should feature in future research.

REFERENCES

Agility PR Solutions. (2020, January). *Top 10 US newspapers by circulation*. https://www.agilitypr.com/resources/top-media-outlets/top-10-daily-american-newspapers/

Amdur, S. E. (2016). The right of refusal: Immigration enforcement and the new cooperative federalism. *Yale Law & Policy Review, 35*, 87–160.

Becker, L. A. (n.d.). *Effect size calculators*. https://www.uccs.edu/~lbecker/

Bhatt, R. (2017). Pushing an end to sanctuary cities: Will it happen? *Michigan Journal of Race & Law, 22,* 139–162.

Birkland, T. A. (1998). Focusing events, mobilization, and agenda setting. *Journal of Public Policy*, *18*(1), 53–74.

Birkland, T. A., & Warnement, M. K. (2016). Refining the idea of focusing events in the multiple-streams framework. In R. Zohlnhöfer & F. W. Rüb (Eds.), *Decision-making under ambiguity and time constraints: Assessing the multiple-streams framework* (pp. 0–0). ECPR Press.

Blair, B. D., & McCormack, L. (2016). Applying the narrative policy framework to the issues surrounding hydraulic fracturing within the news media: A research note. *Research and Politics, 1–3*. https://doi.org/10.1177/2053168016628334

Bragg, D. D., & Soler, M. C. (2017). Policy narrative on applied baccalaureate degrees: Implications for student access to and progression through college in the United States. *Journal of Vocational Education & Training, 69*(1), 123–146. https://doi.org/10.1080/13636820.2017.1289550

Brewer, A. M. (2019). A bridge in flux: Narratives and the policy process in the Pacific Northwest. *Review of Policy Research, 36*(4), 497–522. https://doi.org/10.1111/ropr.12343

Brown, B. (n.d.). *Trump Twitter archive*. https://www.thetrumparchive.com/

Cházaro, A. (2016). Challenging the "criminal alien" paradigm. *UCLA Law Review, 594*, 595–664.

Executive Order 13768. (2017, January 25). *Executive order: Enhancing public safety in the interior of the United States*. https://www.whitehouse.gov/presidential-actions/executive-order-enhancing-public-safety-interior-united-states/

García Hernández, C. C. (2013). Creating crimmigration. *Brigham Young University Law Review,* 1457–1515.

Gupta, K., Ripberger, J. T., & Collins, S. (2014). The strategic use of policy narratives: Jaitapur and the politics of siting a nuclear power plant in India. In M. D. Jones, E. A. Shanahan, & M. K. McBeth (Eds.), *The science of stories: Applications of the narrative policy framework in public policy analysis* (pp. 0–0). Palgrave MacMillan.

Heikkila, T., Weible, C. M., & Pierce, J. J. (2014). Exploring the policy narratives and politics of hydraulic fracturing in New York. In *The science of stories: Applications of the narrative policy framework in public policy studies* (pp. 0–0). Palgrave MacMillan.

IIRIRA. (1996). *Illegal Immigration Reform and Immigrant Responsibility Act of 1996*. https://www.gpo.gov/fdsys/pkg/USCODE-2011-title8/pdf/USCODE-2011-title8-chap12-subchapII-partIX-sec1373.pdf

Johnson, K. R. (2016). Doubling down on racial discrimination: The racially disparate impacts of crime-based removals. *Case Western Law Review, 66*(4), 993–1037.

Jones, M. D. (2014). Cultural characters and climate change: How heroes shape our perception of climate science. *Social Science Quarterly, 95*(1), 1–39.

Jones, M. D., & McBeth, M. K. (2010). A narrative policy framework: Clear enough to be wrong? *Policy Studies Journal, 38*(2), 329–353.

Jones, M. D., & Radaelli, C. M. (2015). The narrative policy framework: Child or monster? *Critical Policy Studies, 9*(3), 339–355.

Jorgensen, P. D., Song, G., & Jones, M. D. (2018). Public support for campaign finance reform: The role of policy narratives, cultural predispositions, and political knowledge in collective policy preference formation. *Social Science Quarterly, 99*(1), 216–230. https://doi.org/10.1111/ssqu.12357

Juárez, M., Gómez-Aguiñaga, B., & Bettez, S. P. (2018). Twenty years after IIRIRA: The rise of immigrant detention and its effects on Latinx communities across the nation. *Journal on Migration & Human Security, 6*(2), 74. http://search.ebscohost.com.umasslowell.idm.oclc.org/login.aspx?direct=true&db=edb&AN=129555093&site=eds-live.

Kandel, W. A. (2016, September 8). Interior immigration enforcement: Criminal alien programs. *Congressional Research Service*, *R44627*. https://fas.org/sgp/crs/homesec/R44627.pdf

Lawlor, A., & Crow, D. (2018). Risk-based policy narratives. *Policy Studies Journal, 46*(4), 843–867.

Lebel, L., & Lebel, B. (2018). Nexus narratives and resource insecurities in the Mekong region. *Environmental Science & Policy, 90*, 164–172. https://doi.org/10.1016/j.envsci.2017.08.015

Littlefield, C. (2015, July 24). *Sanctuary cities: How Kathryn Steinle's death intensified the immigration debate*. LA Times. http://www.latimes.com/local/california/la-me-immigration-sanctuary-kathryn-steinle-20150723-htmlstory.html

Manuel, K. M. (2015). *Immigration detainers: Legal issues*. Congressional Research Service. https://fas.org/sgp/crs/homesec/R42690.pdf

McBeth, M. K., Clemons, R. S., Husmann, M. A., Kusko, E., & Gaarden, A. (2014a). The social construction of a crisis: Policy narratives and contemporary U.S. obesity policy. *Risk, Hazards & Crisis in Public Policy, 4*(3), 135–163.

McBeth, M. K., Jones, M. D., & Shanahan, E. A. (2014b). The narrative policy framework. In C. M. Weible & P. Sabatier, Eds., *Theories of the policy process* (3rd ed., pp. 0–0). Westview Press.

McBeth, M. K., & Lybecker, D. L. (2018). The narrative policy framework, agendas, and sanctuary cities: The construction of a public problem. *Policy Studies Journal, 46(*4), 868–893.

McBeth, M. K., Shanahan, E. A., Arnell, R. J., & Hathaway, P. L. (2007). The intersection of narrative policy analysis and policy change theory. *Policy Studies Journal, 35*(1), 87–108. https://doi.org/10.1111/j.1541-0072.2007.00208.x

McBeth, M. K., Shanahan, E. A., Hathaway, P. L., Tigert, L. E., & Sampson, L. J. (2010). Buffalo tales: Interest group policy stories in Greater Yellowstone. *Policy Sciences, 43*(4), 391–409.

Merry, M. K. (2016). Constructing policy narratives in 140 characters or less: The case of gun policy organizations. *Policy Studies Journal, 44*(4), 373–395.

Merry, M. K. (2019). Angels versus devils: The portrayal of characters in the gun policy debate. *Policy Studies Journal, 47*(4), 882–904.

Offutt, L. (2018, August 2). *Federal appeals court: Executive order denying funding to 'sanctuary cities' unconstitutional*. Jurist. https://www.jurist.org/news/2018/08/federal-appeals-court-executive-order-denying-funding-to-sanctuary-cities-unconstitutional/

Qualtrics. (2021, March 3). *Sample size calculator*. https://www.qualtrics.com/blog/calculating-sample-size/

Rendleman, H., & Rogowski, J. C. (2020). *Americans' attitudes toward federalism*. https://scholar.harvard.edu/files/rogowski/files/federalism_1.pdf

Rodriguez, C. (2017). Enforcement, integration, and the future of immigration federalism. *Journal on Migration and Human Security, 2*, 509. http://search.ebscohost.com.umasslowell.idm.oclc.org/login.aspx?direct=true&db=edsgao&AN=edsgcl.499916617&site=eds-live.

Sabatier, P. (2000). Clear enough to be wrong. *Journal of European Public Policy, 7*(1), 135–140.

Sabatier, P., Hunter, S., & McLaughlin, S. (1987). The devil shift: Perceptions and misperceptions of opponents. *The Western Political Quarterly, 40*(3), 449–476.

Schneider, A., & Ingram, H. (1993). Social construction of target populations: Implications for politics and policy. *The American Political Science Review, 87*(2), 334–347.

Shanahan, E. A., Adams, S. M., Jones, M. D., & McBeth, M. K. (2014). The blame game: Narrative persuasiveness of the intentional causal mechanism. In M. D. Jones, E. A. Shanahan, & M. K. McBeth (Eds.), *The science of stories: Applications of the narrative policy framework in public policy analysis* (pp. 0–0). Palgrave MacMillan.

Shanahan, E. A., Jones, M. D., & McBeth, M. K. (2011). Policy narratives and policy processes. *Policy Studies Journal, 39*(3), 535–561.

Shanahan, E. A., Jones, M. D., McBeth, M. K., & Lane, R. R. (2013). An angel on the wind: How heroic policy narratives shape policy realities. *Policy Studies Journal, 41*(3), 453–483.

Shanahan, E. A., Jones, M. D., McBeth, M. K., & Radaelli, C. M. (2017). *The narrative policy framework in theories of the policy process* (4th ed., C. Weible, Ed.). Westview Press.

Smith-Walter, A. (2018). Victims of health-care reform: Hirschman's rhetoric of reaction in the shadow of federalism. *Policy Studies Journal, 46*(4), 894–921.

Smith-Walter, A., Peterson, H. L., Jones, M. D., & Marshall, A. N. R. (2016). Gun stories: How evidence shapes firearm policy in the United States. *Politics & Policy, 44*(6), 1053–1088. https://doi.org/10.1111/polp.12187

Stauffer, B. (2020). *Culture, institutions, focusing events and their effect on narratives – Differences in the public controversy on the Swiss Child and Adult Protection Authorities* [Manuscript in preparation]. https://boris.unibe.ch/151668/1/Stauffer_2020_Culture__institutions__focusing_events_and_narratives.pdf

U.S. ICE. (2017, May 19). *Secure Communities*. https://www.ice.gov/secure-communities

Van de Vyver, J., & Abrams, D. (2015). Testing the prosocial effectiveness of the prototypical moral emotions: Elevation increases benevolent behaviors and outrage increases justice behaviors. *Journal of Experimental Social Psychology, 58*, 23–33.

Varsanyi, M. W., Lewis, P. G., Provine, D. M., & Decker, S. (2012). A multilayered jurisdictional patchwork: Immigration federalism in the United States. *Law & Policy, 34*(2), 138–158.

Voting by Aliens, 18 U.S.C. § 611 *et seq.* (1996). https://www.law.cornell.edu/uscode/text/18/611

U.S. Census Bureau. (2017a). *Quick facts - Boston City, Massachusetts*. https://www.census.gov/quickfacts/fact/table/bostoncitymassachusetts/PST045217

U.S. Census Bureau. (2017b). *Quick facts - New York City, New York*. https://www.census.gov/quickfacts/newyorkcitynewyork

Young, E. A. (2006). The conservative case for federalism. *George Washington Law Review, 74*(5), 874–887.

CHAPTER APPENDIXES

Appendix A. Intercoder Reliability Statistics

Code	Percent Agree	Krippendorf's Alpha (nominal)	*N* Disagree	*N*
Policy Solution	93.30%	0.923	33	492
Stance of Narrator on Sanctuary Cities	98.20%	0.972	3	164
Characters				
American Values	99.20%	0.746	4	492
Anti-Sanctuary Advocates	98.40%	0.847	8	492
Asylum Seekers	100%	1.0	0	492
Congress	95.10%	0.738	24	492
Criminal Justice System	99.40%	0.931	3	492
Criminals	98%	0.92	10	492
DACA Recipients	100%	1	0	492
Democrats	100%	1	0	492
DHS	98.60%	0.884	7	492
Domestic Violence Service Providers	99.80%	0.857	1	492
Economy	99.20%	0.941	4	492
Elderly	99.80%	0.94	1	492

Executive Order	98.00%	0.88	10	492
Faith Leaders	99.80%	0.94	1	492
Families	98.80%	0.90	6	492
Federal Agencies or Officials	99.40%	0.959	3	492
Health Care System	100%	1	0	492
Human Rights	100%	1	0	492
ICE	97.80%	0.896	11	492
Immigrants	98.40%	0.928	8	492
Immigration Reform	99.60%	0.749	2	492
Law Enforcement	99.60%	0.922	2	492
Law Makers	98.00%	0.743	10	492
Legal Immigrants	99.80%	0.922	1	492
Legislation	96.10%	0.862	19	492
Local Government or Officials	95.90%	0.875	20	492
Local Law Enforcement	98.40%	0.947	8	492
Muslims	99.80%	0.94	1	492
Non-Immigrant Visa Holders	100%	1	0	492
Non-Sanctuary Jurisdictions	100%	1	0	492
Obama	98.60%	0.902	7	492
Other	98.50%	0.819	15	984

Poor People	100%	1	0	492
Powerful People	100%	1	0	492
President Donald Trump	98.40%	0.931	8	492
Prisons-Jails-Corrections	99.80%	0.888	1	492
Pro-Sanctuary Advocates	98.60%	0.911	7	492
Protestors	100%	1	0	492
Public Safety	98%	0.912	10	492
Racial Ethnic Groups	99.80%	0.856	1	492
Refugees	99.80%	0.951	1	492
Republicans	99.80%	0.959	1	492
Researchers	99.60%	0.666	2	492
School District	99.80%	0.922	1	492
Stance of Narrator on Sanctuary Cities	98.20%	0.972	3	164
State Government or Officials	97.60%	0.848	12	492
Supreme Court	100%	1	0	492
Taxpayers	99.40%	0.92	3	492
Technology	100%	1	0	492
The Constitution	98.20%	0.844	9	492
Undocumented-Illegal-Aliens	98.20%	0.946	9	492
U.S. Immigration Services	99.40%	0.931	3	492

Veterans	99.80%	0.666	1	492
Victims of Crime Committed by Undoc. Immigrants	98%	0.881	10	492

CHAPTER 8: A NONVIOLENT NARRATIVE FOR EUROPEAN INTEGRATION?

Roberto Baldoli*, School of Public Policy, University College London, UCL, London
Claudio M Radaelli, School of Transnational Governance, European University Institute, Florence; On leave from School of Public Policy, University College London, London

ABSTRACT

Can we craft a narrative of European integration that contrasts populist narratives while resonating with the concerns of disaffected citizens? If this task is feasible, how do we leverage the Narrative Policy Framework (NPF) to pursue a normative aim, and what are the implications of this normative mode of analysis? To answer these questions, we start from the core properties shared by populist narratives of the European Union. Then we present a possible alternative narrative, grounded in nonviolence as an analytical and normative framework. We compare setting, characters, plot, and moral of the story—first in the populist version and then in the nonviolent alternative. We find that nonviolence can be geared towards a narrative response to the populist account of European integration. We discuss the potential and implications of our normative contribution in terms of ethics and responsibility, contrasting constructive and destructive normative NPF.

*Corresponding author: r.baldoli@ucl.ac.uk

To cite the chapter: Baldoli, Roberto and Claudio M. Radaelli. 2022. "A Nonviolent Narrative for European Integration", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 197-221. doi.org/10.15788/npf8

INTRODUCTION

The Narrative Policy Framework (NPF) has emerged and consolidated in the context of empirical theories of the policy process. Less attention has been devoted to its normative potential, although there is nothing that stands in the way of leveraging the framework for normative purposes. In addition, the NPF applications to supranational integration projects and macro governance architectures are rare (for exceptions: Jones & McBeth, 2020; Ney, 2014; Peterson, 2018; Veselkova & Beblavy, 2014; on the macro dimension of power see Sievers & Jones, 2020) compared to applications at the micro and meso levels (Shanahan et al., 2018a). This normative, macro-level application of the NPF is our contribution to the volume—overall ours is an effort to make the NPF more engaged and relevant with attempts to respond to populism (following the call for action: Crow & Jones, 2018; Jones & Crow, 2017; Jones & McBeth, 2020). In doing this, we

tie in with NPF studies that have a dimension of advocacy and engagement (Lybecker et al., 2013; McBeth et al., 2010; McBeth et al., 2017).

Empirically, we leverage the potential of the NPF to enter the debate concerning the macro-level narratives of the European integration project. For decades, the peace project has been the most persuasive narrative in support of European Union (EU) integration. Over time this narrative has lost traction, also because the new generations do not have the same memories of World War II. By contrast, these memories were central in the beliefs and values of the generation that launched the European Economic Community in 1957. In the 21st Century, populist narratives attacking the very purpose of the EU have gained popularity. This populist turn is nested in a conflict of political and cultural values among Europeans, winners, and losers of integration.

The narrative attack on the European integration project makes political capital out of objective policy crises. Among the EU policy crises of the last ten years, we mention the institutional and policy conflicts on public health and COVID-19 vaccines, the attacks on the sovereign debt of countries in the Euro area, the weak EU governance architecture for migration flows—and in the first part of the decade—the resistance to austerity measures perceived by segments of public opinion as an intrusion in domestic policy (Kratochvil & Sychra, 2019). Anti-European populist narratives have capitalized on the EU limitations in terms of policy crises as well as democratic governance. This state of play has often rewarded populist parties at the ballot box. But here we are not concerned with voting and elections. Rather, we wish to explore the narrative dimension. For sure there are different patterns and varieties of populism, but there are common elements (a common core so to speak) in populist narrations of the European integration project and EU institutions.

This exploration of the populist narrative core leads to the normative questions that motivates us: What would a counter-narrative that takes seriously the essential concerns of people attracted by anti-European populist narratives look like? How should one build such a narrative? What are the connections between empirical and normative analysis that this exercise implies? We believe that social scientists should empirically study populism, understand its mechanisms, dissect its varieties, but also respond by shaping in the public discourse narratives that can antagonize populism. By doing this, we also connect to those in the field of EU politics who have explored the normative potential of narratives (McMahon, 2017).

Methodologically, we use the NPF twice: first to reconstruct the core structure of the populist narrative and then to model the backbones of a possible alternative grounded in the theory of nonviolence. We carry out these tasks by starting empirically with the issues and categories that resonate with the audience of populism by tracing the relevant anti-European narrative themes put forward by populist parties in the 2019 elections to the European Parliament.

Based on this empirical work, we shall develop the alternative narrative starting exactly by the same categories and concepts that seem so appealing to the electorate of populist parties. To illustrate, we shall accept categories such as "the people" (as opposed to "citizens" and "individuals"), and we won't question narrative propositions such as "the EU is not democratic." "the elites of the EU are unaccountable," and "the people, not the institutions, are foundations of the polity." If these themes (empirically evidenced by our analysis) resonate with a large portion of the EU citizens, they ought to be present also in the alternative we are searching for. Yet this alternative—we shall argue—brings us to very different conclusions, and therefore, is a potentially

robust antagonist. More broadly, our experiment leads us to reflect on the normative usages of the NPF to craft a narrative, the blend between empirical and normative analysis, and the ethical implications of the normative turn in NPF research. In doing that, we will address questions on the NPF as a tool for construction or destruction at the macro level of analysis.

To achieve our aims, section one will introduce the theoretical underpinnings. Section two will look at the NPF as a methodological framework. Section three will focus on the Eurosceptic populist narrative of the EU, using examples from populist party manifestos. Section four will take us into the territory of nonviolence. The nonviolent narrative of the EU—we argue—is critical of the EU as it now stands, agrees on the centrality of the people, and is concerned about the loss of sovereignty. The nonviolent narrative turns the top-down narrative of the people rescued by the leader into a bottom-up praxis of liberation starting from the individual. When we approach the NPF in normative mode—we conclude—social scientists must be very clear and explicit on the standards of governance (e.g., the preference for democracy, or one type of democratic regime over another) and their responsibility as policy researchers. We discuss the ethical implications of bending an existing populist narrative towards either destructive aims or a constructive program.

THEORY

The populist critique of the EU comes in different colours—from a full-blown attack on the idea of a political organization like the EU (that is, the critique of the EU as polity), to radical objections, to its political architecture (for example, the role of the European Commission and the Court of Justice of the EU) and resistance to policies (on migration and the Euro, for example). Some Eurosceptic parties are definitively equivocal (Heinisch et al., 2020). They object to the EU, but they also say that they will accept it once they will be in control of the main political levers of integration. Notwithstanding these differences, populist parties are united by an ideology that considers society to be ultimately separated into two homogeneous and antagonistic groups, "the pure people" versus "the corrupt elite" that has taken hold of the institutions in Brussels.

Populism argues that politics should be an expression of the *volonté générale* (general will) of the "people" (Mudde, 2004, p. 543). Populism is also a discursive frame (Laclau, 2005), a style of rhetoric (Norris & Inglehart, 2019), and a political strategy (Weyland, 2017). Whatever dimension we pick, populist parties point to different degrees to a story of what went (and is) wrong with the EU and what should be done. We will pin down the narrative fabric later. Let us now address a preliminary yet fundamental question: What would a narrative sharing some of the real concerns that push citizens towards populist views look like? Related to this is the following question: Why would we look at nonviolence to build an alternative narrative? Indeed, there are categories that, surprisingly perhaps, bring populism and nonviolence closer than one would have thought.

Interestingly, Martin Luther King Jr. associated his political activity with the term populism—some activists coming from that experience even believe in the existence of a "nonviolent form of populism" to protect "the people" instead of race or class (Boyte, 2008). Contemporary populists such as the Italian Matteo Salvini[34] have evoked icons of nonviolence,

[34] See his reference to Gandhi on 18 May 2019 (https://www.youtube.com/watch?v=0JosCQFlG3Y).

such as Mahatma Gandhi. The history of nonviolence has a strong anti-elite flavour (Vinthagen, 2015). But the populist and nonviolent worldviews do not overlap; if anything, we can talk about shared common basic claims. Beyond these claims, the narratives depart. Indeed, some researchers and activists argue that nonviolence is an antidote to populism (Sombatpoonsiri, 2017, 2018). A nonviolent activist like Popovic (2018) writes about the power of nonviolence to fight the rise of populism.

This leads us to clarify what nonviolence is. Nonviolence derives from *ahimsa*, which means the "force unleashed when the desire to harm is eradicated" (here we follow the literature we discussed in Baldoli & Radaelli, 2019). Yet, nonviolence is more than non-killing or non-injury. It has been correctly defined as a force that converts the desire to harm into "creative equivalents such as love and compassion."[35] This force developed with Gandhi into a social and political praxis aimed at reducing violence and building up a different society (constructive program). We identify nonviolence as an *analytical and normative framework* (Baldoli & Radaelli, 2019; Baldoli, 2018). *Analytical*—because it draws attention to certain phenomena, causal processes, and interpretations. *Normative*—because it allows us to come to a judgment on the quality of individual and social action and more generally the meanings implied by and diffused through behavior.

There are three central properties of the nonviolent framework. First, the force that appears in the definition is power grounded in praxis. The nonviolent force appears only when in a real-world episode the desire to harm is eradicated. Nonviolence starts from a conception of power as *creation*, which appears when people create together social competence and governance from the bottom up (Baldoli & Radaelli, 2019). Second, this force can be unleashed by any individual, even just one person (see Nagler, 2014 on person power). It is not contingent on a given institutional setting, neither does it require institutional "authorization." Instead, in its most basic form, the real source of power lies in the consent, assistance, and cooperation of the political community—that is, the consent theory of power (Sharp ,1973a, 1973b). People give elected politicians and institutions consent to rule, but they can withdraw it at any time, for example, with civil disobedience. Third, nonviolent action is a process of change rather than a plan to reach a final goal. For this reason, Baldoli and Radaelli (2019) conclude that the nonviolent political theory of the EU is not about achieving a pre-defined political structure like a federation or a confederation. Instead, a nonviolent EU is a horizon (Diez, 1997).

Some qualifications on the framework of nonviolence are in order. Nonviolence is often associated with a set of techniques of action that do not physically harm an opponent (Sharp, 1973b). It is often a qualifier inserted before "conflict" and "civil resistance" (Bartkowsi, 2013, Chenoweth & Stephan, 2011, Popovic, 2015). And yet, this view of nonviolence, although popular in the literature and in our collective imagination of squares filled with peaceful citizens, has limitations. In fact, nonviolence cannot be reduced to a set of techniques (for further specifications: Jahanbegloo, 2014; Nagler, 2004; Mantena, 2012). If that were the case, it would be absolutely fine to argue that the vast majority of citizens that follow populist parties and movements are nonviolent. Some extreme right-wing populists stage flash-mob protests, experiment with new ways of communal living, and even claim that they study Gene Sharp and Gandhi (Bennhold,

[35] https://mettacenter.org/nonviolence/introduction/

2018). We would end up with paradoxes such as "nonviolent forms of right-wing extremism" (Briggs & Goodwin, 2012). Besides, it would be easy but conceptually narrow to think of nonviolence as a mere toolbox of collective action (Sombatpoonsiri, 2018). As a framework for political action, nonviolence is oriented towards empowerment, liberation, and change (Mantena, 2012). It goes beyond expressing indignity and protest. The core of nonviolence is a process of change (Mantena, 2012) and creation—in this sense it is a form of emergent power (Adler-Nissen & Pouliot 2014)—leading to *swaraj* (self-rule and self-government) and *sarvodaya* (the uplift of all). Nonviolence may start from the individual, but it is deeply intersubjective, ending up in the domain of politics and governance, with a realistic, rather than idealistic, posture (Mantena, 2012).

In the remainder, we develop these foundational propositions to explore one dimension of nonviolence: the narrative dimension. The question now arises: How do we go about this aim in terms of methodology and sources?

METHODOLOGY AND SOURCES

Examples of narrative-inspired studies in the field of EU politics and policy deal with the prospect for a new narrative (Innerarity et al., 2018), the role of the EU in others' countries narratives (Zheng, 2017), the projection and reception of EU narrative in other parts of the world (Chaban et al., 2017), and modes of narration of European integration (Kaiser & McMahon, 2017). Manners and Murray (2016) outline the crisis of the narrative of the peace project.

There are different ways to get to grips with narratives (Tuohy, 2019). We adopt the NPF. The NPF is frequently associated with the empirical analysis of the policy process and public policies (Jones at al., 2010), hence it has a strong sectoral component (e.g., environmental, social, foreign policy, etc.). Yet, the NPF is also suitable for the analysis of institutional and historical narratives—the grand narratives (Ney, 2014) that 'create socially constructed realities that manifest as institutions (Shanahan et al., 2018a, p. 195).

This kind of macro-level analysis is key to firstly understand and secondly address constructively the subject matter of this chapter. Our normative take on the NPF is not a violation of any of the central claims of the approach—quite the opposite. Recent NPF work goes in the normative direction quite explicitly (Sievers & Jones, 2020). Leading authors in the field have embraced the normative NPF turn to critically assess Trump's narrative (Jones & Crow, 2020; Jones & McBeth, 2020), help science communicators to spread science more persuasively (Crow & Jones, 2017), and provide advice to practitioners (Jones & Crow, 2018).

We adopt the NPF because it allows us to compare the core structural features or building blocks of different narratives. One important NPF proposition is that these common features appear in a large variety of narratives across space and time. We will therefore compare populist and nonviolent narratives in terms of the following features: the context (the setting of the story), characters, plot, and moral of the story. We are aware of the discussion about what elements a narrative must have and those that may or may not be present (the plot may be incomplete or non-existent, and there may be one or more characters). But this discussion does not concern us as we are not in the territory of definitions. Empirically, we observe that setting, characters, plot, and moral are core elements of the populist narrative. And, consequently, we can examine them.

Commencing with the *context,* in a narrative, what matters is the discursive representation of the setting, defined as "environment (space) in which characters exist and interact with one another over time" (Shanahan et al., 2018b, p. 928). The NPF argues that actors in domains of high controversies tend to be discursively portrayed as *heroes* and *villains*. There are other characters in the story, but these two are more common because they push the audience towards a given conclusion—the villains are motivated by wrong or ill purposes (Shanahan et al., 2018a). The *plot* is a set of cause-and-effect mechanisms connecting past to present and future. Not all narratives have plots (Shanahan et al., 2018a); indeed, there are incomplete and incoherent plots. The limited attention for political life of the ordinary citizen may make an incomplete plot still capable of resonating well in terms of emotions. When the narrator talks about the future, the desired course of action is often contrasted with a doomsday scenario, which is a set of terrible consequences that can only be avoided by staying firmly on the side of the hero. When an individual or group self-identifies as the only one who can take us into a better future where the problem is solved, we have an angel shift. The angel shift occurs in a narrative when the narration emphasizes the ability of a group or a hero to solve a problem and at the same time de-emphasizes villains (Shanahan et al., 2013). Weible et al. (2009, pp. 132–133) explain that the opposite devil shift occurs when "actors will exaggerate the malicious motives, behaviors, and influence of opponents." Finally, the *moral of the story* assigns purpose to the actions of the characters; it is a bit like the point that the story makes.

Following Tuohy (2019), there is a continuum between organic and crafted narratives. At a given moment in time, the organic narrative is already there, in the real world. Instead, a crafted narrative is deliberatively created for a purpose by an author. Today we can talk of organic populist narratives—even though we acknowledge that, when looking at the EU, populism can be hard, soft, equivocal, and historically contingent (Heinisch et al., 2020). The populist roots in nationalism are also produced discursively and imagined (Anderson, 1983). Be that as it may, a nonviolent narrative of the EU can only be crafted. It does not mean invented, because as we shall illustrate some episodes and heroes have punctuated nonviolent moments in EU history, but it is marginal and silenced. The NPF will provide the structural components we need to construct a nonviolent narrative that does not yet exist in the EU public sphere.

Moving to sources and data, there is no systematic corpus of nonviolent text. Thus, for our NPF analysis, we draw on the nonviolence literature, but we cannot generate data. To illustrate, there are no 2019 European Parliament (EP) elections manifestos grounded in or even mentioning nonviolence. There is literature generated by European nonviolent authors and activists dealing explicitly with key European issues, such as Gonzalo Arias, Marco Cappato, Danilo Dolci, Vaclav Havel, Lech Walesa, Jean-Marie Muller, Petra Kelly, and Srdja Popovic. It would make no sense to code these scattered writings and speeches produced in different periods for different purposes and with very different lengths, from the systematic essay-like treatment of Havel to the Cappato resolution of the EP (European Parliament 2008). We considered eclectically these reports and speeches—supplemented by the few scholarly references on nonviolence in the EU (see the classic Galtung, 1973; more recently Diez, 1997; Baldoli & Radaelli, 2019) to build our own structural components, that is, setting, actors, plot, doomsday scenario, and moral of the story.

For the populist narrative, by contrast, possible sources and data are abundant. The first criterion is geographical variety. This points towards cases from both political systems of the old

EU-15 and the Euroscepticism populism in the Central and Eastern democracies. The second criterion is the representation of left-wing, right-wing, and "new" populism. A third criterion is to take recent statements. This leads us to choose party manifestos from parties that successfully competed for seats in the EP in 2019. Our criteria do not include statistical representativeness. This is because we do not want to draw inferences about a population of parties from a sample. But we want to show the presence of narrative elements and structures both on the right and on the left, in the West and the East. Hence, a country can be over-represented or under-represented; in some countries, there are populist parties that have not developed antagonistic narratives of the EU (Romania) or have not published 2019 manifestos with details on the EU. We found relevant text in the documents of the League (Italy), Rassemblement National (France), Vox (Spain), PiS (Poland), Podemos (Spain), Finns Party (Finland), and Five-Star Movement (M5S), the "new populism" in Italy). When we found references to the EU, we searched the narrative, focusing on non-ambiguous, explicit, and clear references to setting, characters (narrator, villain, hero, other),' plot, and moral. We also checked our statements on the populist categories against the precise meaning of concepts provided in the literature (Hooghe et al., 2002; DeVries & Edward, 2009; Halikiopoulou et al., 2012; Pirro & Van Kessel, 2017).

THE POPULIST NARRATIVE

To start with the foundation(s) of the populist narrative, let us consider the polity dimension: what is Europe as "context" for a political organization? Does "Europe" exist as such, and if so should it be governed by a polity? In the populist narrative, Europe-as-context is not denied. Europe exists. There is a strong idea of Europe, of a community (Christian) whose individuals share a common heritage. Some populist parties stress the historic component (PiS, 2019, p. 8), others the common culture (Rassemblement National, 2019, p. 9; VOX, 2019, p. 2) or geographical position (League 2018). For these parties, the problems start with Europe as polity; the EU is a machine limiting aspirations and desires (Podemos, 2019, p. 5) or, for the right-wing populist parties, moving against the Europe of the Nations. This is the locus of the crisis: EU institutions are increasingly detached from their citizens.

To stop this crisis, populists offer a hero. The hero is someone who comprehends the will of the people but is relatively new to politics, such as Iglesias or Grillo, or at least leading an outsider party, such as Salvini, Le Pen, or Abascal. In all these cases, the narrator is also the hero (who comprehends the will of the people) and the party leader. But "leader" does not necessarily mean politician. Populist leaders do not even identify themselves with "the politician." It is common for a populist leader-hero to deploy narrative registers and repertories that do not belong to the classic political discourse. The language of the populist narrator can be satirical, delivered to public performances that are more similar to the shows of stand-alone comedians than to the style of political rallies—as shown by M5S Beppe Grillo.

The leader captures and incarnates the category of "the will of the people" (an ambiguous concept, see Weale, 2018). The task of this character is to unveil the evil done by the political class; it is exactly by doing this that the leader becomes the populist hero. The people are the victims (*el pueblo español*). In the context of the EU, the people are homogeneous national entities, even though parties such as Podemos also refer to EU citizens. This is also valid for left-wing

parties as they tend to equate class with the nation (Halikiopoulou et al., 2012). People are attacked by the EU elites (the villains) described as Eurocrats (Rassemblement National, 2019: 9), a "tentacular bureaucratic structure" (Lega) or "the caste" (M5S). They are assaulted by migrants who have access to the EU only because of its inefficiency. They are diminished in their capacity to choose how to spend and tax by the European Central Bank and the European Commission. They see their culture taken away by multinational and global entities.

In particular, populists describe the people as a homogeneous entity. When the juxtaposition is with the villain (the EU), the people are the natives of a nation—even if internally populists fight fiercely against their domestic political class. There is no focus on the individual in this narrative construction: all French (or Finns, etc.) are losing out to the EU unless they listen to the leader. This form of nationalism is common to right-wing and left-wing populist parties, even though previous research already showed that the former is more concerned about culture while the latter about imperialism and great powers (Halikiopoulou et al., 2012).

The villains are then the elites and their EU institutions. This proposition refers to polity, politics, and policies. The EU polity is not a community of people, nation-states, and supranational institutions. In its current form, EU politics is a kind of "foreign paternalism" (AFD, 2017, p. 16), which is entirely governed by political and economic elites, a homogeneous group of people with a precise ideology and a preference for compromise (VOX, 2019, p. 3). The European Commission is a group of bureaucrats only "very indirectly" selected by nation-states (Finns Party, 2019, p. 4). The Council of EU Ministers does not have the power it deserves to fully protect the dimensions of territory and nation—being overwhelmed by supranational institutions like the European Commission and the EP. The European Central Bank is abusing its role. Free trade and protectionism are labels that the villains use to turn the normative table on what is bad (free trade) and good for the people (the preservation of their culture, goods, habits, food, wrongly labeled as protectionism by the elites). Thus, the anti-EU institutional posture of the narrative goes hand-in-hand with the rejection of EU policies such as free trade and calls for protectionism. In the Iberian Peninsula, populist parties blame the EU elites for austerity and neoliberalism (Podemos, 2019); the same did the Front National in France (Bohemen et al., 2018). Yet, for the far-right, the key problem of Europe is cultural; they blame the EU mainly for the way the crisis of migration is challenging national identities.

What is the plot of this story? There was a past where all the so-called "citizens of the state" had their own sovereignty and culture. They were coherent demos, with their own problems but also with their own identities. The present, instead, is dull and crude. This is because EU elites have objectives different from those of the people, first of all, that of political and economic integration at any cost. The EU is an institution with the power to regulate against the economic and physical health of citizens of member states (League, 2018, p. 9). Here is a common devil shift in the populist narrative, where narrators exaggerate the malicious motives, actions, and impact of their opponents (Shanahan et al., 2018a). When elites make policy choices, they are indifferent if not hostile to people's suffering. Even worse, they deliberately choose policies that damage the unity, autonomy, and identity of the nations. They generate crises that are advantageous to a few villains.

A consequence of the unfair EU political architecture is the crisis of sovereignty. Rassemblement National claims that the EU is a step towards *le mondialisme total* (2019, p. 6), in

which nation-states no longer hold real power. The European elites are blamed for having trapped the member states and the "common citizens" in a system that, at least since Maastricht, eroded their sovereignty in economics, border protection, legislation, and commerce. This crisis has been described as a crisis of popular sovereignty (Pirro et al., 2018).

The recurrent threat to the use of tools of direct democracy, such as the EU referendum, does not come from a real belief in a different kind of European democracy. No constructive action is envisaged. Most of the time, in populist narratives, the referenda are not ways to improve or construct a better EU. Instead, they are functional to the struggle of the nation-state against the EU. Indeed, Rassemblement National recalled the result of the 2005 referendum on the constitutional treaty, interpreting it as they attempt to stop the creation of the European federation (2019, p. 3). Even in the case of M5S, the proposal of an EU-wide use of the referendum is not backed by any vision for EU democracy. Most of the other party manifestos highlight that the key events to blame are the Maastricht Treaty, which created the Economic and Monetary Union, and the liberalization of most markets from audio-visual to food.

What about the future? In the doomsday scenario, the exercise of popular sovereignty in the EU evaporates in a technocratic world—a world that suppresses traditional cultures and domestic liberties and freedom. Europeans will live in an EU with no power, ample areas of poverty, limited diversity, inequalities, and cultural stagnation.

To avoid the doomsday scenario, populist heroes point to solutions that are not fully-fledged programs, but rather aspirations in the form of manifestos' bullet points that evoke desirable future(s). Populist parties will soon force a critical re-appraisal of all Treaties on which the EU was built and abolish all regulations that are alien to domestic legal traditions. Here we find the solution discursively represented as the reverse of the EU as we know it today, with drastic changes to the EU politics—and even plots where one party can be equivocally both inside and outside the EU institutional perimeter (Heinisch et al., 2020).

Indeed, for some, the solution is simply a withdrawal from the EU, such as AFD or the Freedom Party.[36] We find generic appeals to a return to a Europe of Nations and to the foundational "Europe-as-context"—the Europe of the Peoples. Alongside this rejection of the EU polity, we also find an intermediate objective of hollowing out the integration project from the inside by gaining prominence inside the EU political institutions, especially the Council. Although ambiguous and equivocal (Heinisch et al., 2020), the League in 2019, along with Rassemblement National, was explicit in demanding a return back to the European Economic Community rather than a complete elimination of any political architecture for European integration. VOX aims for a more general political freedom of nations, while Podemos sees the future in terms of the protection of diversity and uniqueness of each state.

Turning to the EU politics, technocratic and non-elected elites have to be tamed, when not completely removed, especially the Commission, the European Central Bank, and the Court of Justice of the EU. The Rassemblement envisages the substitution of the decision-making procedures with referenda that will steer European decisions (2019, p. 17). For VOX, the solution

[36] See ADF manifesto at: https://www.afd.de/wp-content/uploads/sites/111/2017/04/2017-04-12_afd-grundsatzprogramm-englisch_web.pdf (last accessed on the 24 May 2020). The Freedom Party manifesto is available at: https://www.geertwilders.nl/94-english/2007-preliminary-election-program-pvv-2017-2021 (last accessed on the 24 May 2020).

is to reduce the legislative capacity of the Commission (VOX, 2019, p. 5). Schengen should be abolished and frontiers reinstalled; the Maastricht Treaty and the Euro should be slowly reversed; the Commission's competencies on migration should be minimized and the exclusive competences of the member states magnified. These statements appear in the manifestos of AFD, League, Rassemblement, and Finns Party.

The moral of the story provides meaning and purpose to what the characters do, articulating their motives. The populist moral is a variation on the themes of nostalgia and what PiS called Euro-realism, which points to the Europe of homelands. In other words, they propose separation from—and slow suppression of—EU institutions. RN and VOX highlight the need to protect states' identities and values, even introducing strong legal barriers—PiS claims. The League envisages future cooperation among nation-states based exclusively on economic gains, while Five-Star Movement and Podemos point to a generic "complete change of the EU," This is morally justified by the need to return to the centrality of the people and their (national or in some extreme cases even regional) sovereignty. This moral of substantial disintegration is aligned with populist movements lurching towards illiberal forms of democracy and domestic authoritarianism by humiliating or limiting intermediate bodies, the use of referenda to secede and overturn the "projects of the elites," and by not-so-veiled sympathies for populist leaders like Chavez, Trump, and Putin.

A Different Narrative: Freedom, Plurality, and Europe of All

The nonviolent narrative we are about to craft shares important concerns with the populists. Take the context. For a nonviolent narrative, the EU is certainly in a multi-layered and multi-policy crisis in which the division between people and elites widens. Even more, a nonviolent narrative would accept to formulate the problem as a crisis of popular sovereignty as the people do not play the role they deserve.

The narrator of nonviolence, like the one of populism, is not an elected politician in office. Rather, the narrator is someone from civil society. She or he can be a trade unionist like Walesa, a priest like don Tonino Bello or a translator like Gonzalo Arias. The narrators do not belong to old or new elites. Both nonviolence and populism emphasize the importance of the people. One of the most well-known concepts in nonviolence literature is indeed people power (Sharp, 1973a). Nonviolent theorists such as Havel and Capitini were not afraid of talking about the people as different from the ruling elites. Havel took the side of the "powerless" (Havel et al., 1985); Capitini focused his effort to help the whole of citizens, the "*tutti*" (the Italian word for "all") (Capitini, 1999).

Yet, crucially, in nonviolence, there is no reference to a hero who "knows" the will of the people. It is not by chance that in some of the most important nonviolent campaigns around the world today we find leaderless movements. Lanza del Vasto, Capitini, and Havel were great narrators but not heroes in their narratives. They were the public faces of the protest, facilitators or receptive charismatic protagonists of something bigger than them.

Here we find a dramatic departure from the populist narrative: the true nonviolent heroes are individuals and communities emerging from passivity. Every individual carries the potential to become the hero. The concept of "people" does not mean "one entity" and "one voice." People

are different. Each person is unique. The people on which nonviolence focuses are in particular children, prisoners, minorities, oppressed, and foreigners. What people share is not one voice, but similar human conditions, that is, their basic biological-historical limitations (Baldoli, 2018).

This changes dramatically the characters of our story, showing very different angel and devil shifts. The people cannot be "just" victims, as the elites are not intrinsically villains. People are not a deluded mass with common sense. They are an intricate mosaic of trustees of their own communities, each one with their own role, responsibilities, and opportunities. Both people and elites become heroes (angel shift) when they decide to use their power to say no to something unfair and to rise from passivity. This rejection of passivity may look similar to the populist rhetoric. In fact, it is the exact opposite. Rejection of passivity is an active process of liberation, starting from the self and our relationship with the others—a relationship made of both self-restraint and the acquisition of personal responsibility (Baldoli, 2018). This process includes the acquisition of methods of action to say no to decisions considered unfair (Sharp, 1973b) and effectively disobey (Popovic, 2015; Nagler, 2014). Yet, it also includes a profound work on the self, such as the maieutic process put in place by Danilo Dolci in Sicily (Dolci, 2009), or the work on education by Muller (2002). Instead, populism demands trust in the new leader without any serious work of empowerment of the citizens themselves.

This act of liberation points to the relationship of passivity as the true villain (this is the devil shift of nonviolence). In a sense, the villain is a dyadic relation between us and the other, not a single character. No individual villain has to be humiliated and defeated. By taking pain and suffering upon herself, by going to jail against an unjust law or by practicing a hunger strike, the nonviolent hero offers the other the possibility to see the unjust nature of a law, a decision, an institution, or a tradition. The overall aim of nonviolent conflict is not to "win the war" but to change closed social and political relationships: habits, practices, or processes that impair the development of society. The aim is to convince, to persuade and be persuaded, and to achieve stable conflict resolution. In the literature, this concept has been called *agape* (King, 2010), openness (Capitini, 1999), or plurality (Baldoli, 2018). *Agape* is described by King as the capacity to forgive, which does not mean ignoring what happened, but averting the mistake of letting the event becoming a barrier, which would hinder reconciliation; the understanding that the other is more than his or her deeds; and the refusal to humiliate the other, as it would worsen the situation (2010).

The EU is grounded on a veritable "European tradition" of agape dealing with domains in crisis, such as education (Jean-Marie Muller) the military (Gonzalo Arias), prisons (Pat Patfoort, Marco Pannella), the environment (Alex Langer), and religion (Lanza del Vasto and Capitini). The confrontation between the hero and the villain in these domains is not like a duel in a Spaghetti-Western film. Galtung points towards "transcending conflicts" because both parties are (and should be) transformed by the new solution (Galtung, 1996). In the case of the EU, both the people and the elites are damaged by the present situation. With nonviolence, confrontation with the villain (enshrined in the wrong social and political relations, not in the other) becomes a painful yet rewarding process to create a new reality together.

And yet, what is the *plot* of this story? Since the inception of the European project, both the people and the elites failed to catch the opportunity of building up freedom and plurality. Both these groups failed to adopt, use, and develop the wisdom of nonviolent struggle and experiments

of liberation from authoritarian regimes and war. At the same time, both groups did not do enough to accelerate a process that still goes too slowly—or stopped too early—in European recent history: the democratization of democracies.[37] The crisis does not come from a conspiracy of national and international elites against the people. People and elites suffer together from not having democratized the EU since its inception (Galtung, 1973). The problem is not the elite but the lack of the "power of all" (Capitini, 1999), meaning both participation and inclusion in the European policy process (Baldoli, 2018, p. 117), which reinforces and shapes a "diverse citizenship" (the concept is illustrated by Tully, 2014).

The failure to embrace freedom and plurality leads to the claim that the EU suffers from a lack of sovereignty, in particular of popular sovereignty. Yet this term means neither that nation-states and their citizens do not have enough sovereignty, nor that the governments cannot freely design their domestic laws and policies. The problem lies in the process, in the daily practices. Citizens lack liberating and inclusive practices and processes in the European social and political spheres. In other words, the lack of popular sovereignty does not lie in the fact that EU institutions and policies do not legislate in the true spirit and will of the people (that some strong leader supposedly accesses without bias). It is not a referendum at the regional, national, or European level that will solve the legitimacy problem around Europe. The lack of popular sovereignty is grounded in the passivity and closure of practices.

To turn the tide and avoid this doomsday scenario of passivity and closure, the heroes, in this case, the European people and the elites, have a choice to make: either they face the fragility of European democracies and their institutions closing down in themselves, giving up on their role as trustees of the society, or they rise from passivity and closure. By doing so, they will seize the opportunity to create a new reality *via facti* with the others. Populism instead makes a clear choice towards closure. Srdja Popovic, with his characteristic irony, pointed out a key weakness of populist leaders: they take themselves too seriously (Popovic, 2018). This mistake is what Gandhi called *duragraha*, meaning stubborn persistence that excludes others from the process of finding a solution.

For the populists, the EU must be demolished from the top: Maastricht, the Euro, the Dublin regulation on migrations, the Commission, the European Central Bank, the primacy of EU law over national legislation. This process of dismantling will lead to the return of nationalism and Europe of the homelands. Nonviolence starts from personal liberation from passivity and openness towards the other in everyday relationships. It then scales up to community and governance. Instead of creating closed groups or identities to resist global change, citizens embrace human and democratic fragility, focusing on what they can do with/for the others. This is "diverse citizenship" (Tully, 2014), which points to the power of everyone to engage in the negotiation of practices of citizenship at different levels of the polity. For instance, Danilo Dolci tried to help fishermen in Sicily to become active citizens and not simply passive victims of a distant state; Alex Langer promoted the Peace Civil Corps to empower EU citizens to be able to act effectively in conflict zones; party leaders such as Petra Kelly and Marco Pannella incarnated nonviolent creativity to bring about changes in democratic contexts (Kelly, 2001; Pannella, 2007a, 2007b).

[37] See Havel's discourse to the French Senate: 'the durability of the new European order will depend considerably on the measures of openness inside this structure' (available at: http://old.hrad.cz/president/Havel/evropa/index_uk.html. Last Accessed on the 6 April 2020).

What is the moral of the story, then? The moral comes close to what Diez (1997) called a political horizon connected with our daily practices. This is the opposite of a ballistic, deterministic model pointing to a final destination. The nonviolent narrative does not say whether there should be a banking union, a fiscal compact, or a revision of the Dublin regulation on migrants. It provides the horizon for taking these decisions. The means, not the pre-determined final goal, are ends-creative (Mantena, 2012). The means have the power of transforming social and political practices in qualitative ways. Means and ends should come together to overcome the current stalemate. There can't be change with the simple transfer of power from the EU to its member states—Gandhi would have said that it would make no sense to change the tiger without changing the tiger's nature. Real change happens when the meaning and character of rulership has changed, when the democratic order is qualitatively improved, and when a different horizon is built up from daily relationships and practices. This is a very different project from the populist one, as it is founded on the pillars of freedom and plurality.

Many names have been given to this project: horizontal society (Galtung, 1992), post-democracy (Havel et al., 1985), and omnicracy (Capitini, 1999). The key to this vision is the theory of the "oceanic circles" elaborated by Gandhi. Nonviolent society is not like a pyramid; it is to be imagined as an oceanic circle (Gandhi, 1997), ever-widening from the person to the villages and more generally the political community. If we want to imagine a label for this alternative European project, we can say that nonviolence would change the populist "Europe of Nations" or "Europe of the People" into the Capitini-inspired "Europe of All."

DISCUSSION

We wrap up the key elements of our comparison in Table 1 below. Nonviolence generates meanings and sets the direction for the goals and objectives of individuals and communities. The polity's foundations are in self-governance and liberation. Integration is not designed at the top and implemented at the bottom. The people, then, are core to the nonviolent narrative as well as to the populist narrative. Yet the concepts of "the people" and "governance" are framed in terms of communities and their trustees without excluding elites. The people are the heroes of this narrative not due to their choice to back a strong leader against the elites, but because they free themselves—learning to disobey and act for change. Freedom goes hand-in-hand with plurality and openness, as real change only happens when the others are on board and share the meanings incarnated via practices of liberation.

The villains are present in both narratives. But, in populism they are individuals, while in nonviolence, the villain is not the other. Instead, the harm lies in the quality (or in the total absence) of the relationship among individuals (Table 1 row 4). In particular, it lies in passivity and closure in human relationships at any level, from personal to political.

Like populism, the nonviolent narrative provides no apologies for the status quo (Table 1 row 5). However, nonviolence does not believe that the dismantling of European institutions is the solution to the crisis of popular sovereignty. It rings several alarm bells about the loss of popular sovereignty in the EU and its ailing democracies. Yet, this loss lies in the process, not in the laws and policies. Individuals, both people and elites, not the EU institutions, have the opportunity to go back to their history and resuscitate the many nonviolent experiments of freedom and plurality.

Institutional change can only follow up and accommodate changes that are already taking place. Thus, the moral of the story (Table 1 row 6) is that the EU should not be dis-integrated. It still needs to be built as a new horizon of relationships and practices through much more freedom and plurality, and the Europe of All.

Table 1. A comparison of European integration narratives

	Populist Narrative	*Nonviolent Narrative*
Settings	The EU is not democratic and not effective in its policies, creating a rift between citizens and elites. The EU lacks popular sovereignty.	
Heroes/Narrator	The narrator: 1) portrays herself as anti-establishment 2) uses no conventional political language 3) knows the will of the people 4) is the leader of the party and the hero in the narrative.	The narrator: 1) does not come from the establishment 2) uses no conventional political language. 3) is not the interpreter of the will of the people. 4) is not necessarily the hero. The true heroes are the people as trustees of their community.
Victims	The people. The people are one organic national entity with one single voice. A voice that is silenced by the EU.	The people and the elites. They both suffer from the state of play in the EU.
Villain	Political elites, technocrats.	The villain is not an individual or an institution. The villain is the relationship of passivity and closure between us and the others.
Plot	In the past Europe was a continent of homelands, culture and nations. The EU has become a project opposed to the will of the people; it hinders the exercise of popular sovereignty. To stop violations of the will of the people, we need to dismantle the EU integration project. If there is a future for the EU as political project, it is similar to the situation pre-Maastricht or the European Economic Community.	The historical mistake of the EU was not to start from democracy as political vision. Today we have to democratize the EU and its member states. To stop the relationship of passivity and closure, the solution lies in liberating and inclusive practices. It is up to individuals (power of each one of us and people power), not to the EU institutions, to kick-start a process of liberation, democratic governance, and reform. EU institutional change will follow and accompany this bottom-up process.
Moral	To reclaim the 'Europe of Nations' or the 'Europe of the Peoples'.	To claim freedom and plurality and build up the 'Europe of All'.

Our comparison contributes to the existing literature on NPF normative usages (see for instance McBeth et al., 2014; McBeth & Jones, 2020). Ethically, we argue that to shift the NPF in normative mode is acceptable because, as policy scholars, we see our enterprise intrinsically connected to the ethos of the democratic vision of the policy sciences (deLeon, 1997; Dunlop &

Radaelli, 2021). We have not written this chapter to defend the EU but to respond to the populist ideology, which reveals serious flaws in terms of democratic theory (Weale, 2018).

Our normative experiment also contains a plausibility test: Can we demonstrate how to move from one undesirable narrative to another more attractive narrative (attractive in terms of normative goals and potential traction on citizens)? We believe that we have passed this plausibility test with empirical homework on the "source" narrative (populism in our case) before attending to the new, normatively inspired counter-narrative. Our empirical work was based on components of the populist narratives that resonate the most with European citizens. We then plugged these components onto the narrative we were about to create in the lab of the social scientist, so to speak.

Essentially, we have contributed to the emerging efforts to adopt the NPF normatively to create narratives at the macro level (Jones & McBeth, 2020). But we question the connection between means and ends implicit in the key categories of the NPF. Meanings and usages of NPF categories are not free-floating—they depend on the ends of those who handle and manipulate them. The same categories can be used to destroy (trust in institutions, legitimacy of the EU, confidence in reason) or to construct. This destructive vs. constructive bifurcation opens up NPF research to consideration about ethics. There is an ethical responsibility of the policy researcher. With the big questions (that is, macro questions concerning our societies and governance) come ethics and responsibility for the implications of what we say in the world out there. Normatively, the NPF can be either destructive or constructive. The difference lies in the ethical posture of the researcher.

Consider how the destructive vs. constructive bifurcation shapes the NPF categories. Settings are far from being objective descriptions of an external reality; they are heavily influenced by framing and personal views (Shanahan et al., 2018b) and, in our case, ideologies. A crafted narrative can provide new meanings to the same words and orient the audience in a different direction. We have not done this in the present chapter—the nonviolent narrative adopted the populist critical view of the setting—but this is an option when crafting narratives, and researchers should be aware of that and communicate in total transparency what they are doing.

More pertinently perhaps, consider the triad hero-narrator-victim. McBeth et al. (2014) as well as Lybecker et al. (2013) found that the villain-based narratives are highly divisive (in their context, of recycling), while a heroic narrative (in which the person exercising individual responsibility is considered a hero) receives support from both liberals and conservatives. Ney already highlighted that "inadvertent" causal mechanisms lead to a certain degree of polarization (2014, p. 222). Our analysis confirms these views and goes further. A constructive narrative eschews the notion of the narrator as the hero, pointing instead to diffusion and incarnation of the role of heroes among as many people as possible. The villain is not anthropomorphic, but it is a broken relationship; the victims are not simply the target group, but all parties involved in a broken relationship; and the plot is characterized by the engagement of everybody to adjunct an inclusive alternative to an insufficient status quo.

The opposite happens in the destructive orientation of the NPF, as shown in Table 2. The triad hero-narrator-victim has normative connotations that can be manipulated to push for further polarization and disaggregation. In this sense, we go beyond the idea that a simple "pair-wise alliances" of cultural frames (in our case ideologies) may lead to exclusion of a third way of life,

and thus to polarization (Ney, 2014, p. 231). A real constructive path at macro level dispenses of the narrator as hero and provides a plural notion of hero. The villain is an individual or a hostile group in the destructive NPF, while it lies in the quality of relationships in constructive NPF.

Finally, these choices between destructive and constructive NPF have implications for the plot and the moral of the story (Table 2). The mechanism here is not simply one of a contest between narratives, with one emerging at the expense of the other. A constructive narrative creates, adds, and integrates the status quo with an alternative that includes everybody (past and future generations and other living beings)—even though it is achieved through self-suffering and renunciation. This process leads to a deeper level of learning and to a real reconciliation among the parties. At this level, the NPF goes beyond the vision of political life as a confrontation between discursive and advocacy coalitions.

This does not mean that there should always be complete agreements at the meso level. Yet, it is at the macro level, at the level of the meaning of the institutions, that the maximum consensus possible has to be achieved. In other words, it is at the macro level that the institution should remain the "horizon" of everyone.

Table 2. Destructive and Constructive NPF

	Destructive NPF	Constructive
Settings	The status quo does not work	
Hero narrator	Concentration: the narrator is the hero; the heroes are few or even one person.	Diffusion and plurality: the narrator is not the hero. The heroes are all individuals rising from passivity.
Victims	Apathy: Groups of individuals are clearly distinguishable from other groups, they have nothing to share, no empathy.	Empathy: All parties involved in the relationship. All parties suffer in different ways from the present situation.
Villain	Individual(s): other groups or even one person.	A relationship, specifically the broken ties in the relationship with the others.
Plot	Disengagement: the unsatisfactory status quo is independent from hero and narrator	Engagement: The status quo is premised on interrelatedness of life. Individuals have the capacity and responsibility to address the quality of interrelatedness and improve.
	Dialectics: path towards a superior unity/solution, even with the suffering or annihilation of the other group.	Adjunction: adding quality to present reality, even with self-suffering. This quality integrates and enriches the present situation, and changes the present, failed relationship.
	Destruction: going back to smaller independent units or imposition of the hero's will on the other-as-loser. Domination instead of persuasion.	Construction: building an alternative that includes the other. Persuasion instead of domination.
Moral	Suppression or separation.	Reconciliation.

Our analysis also reveals that a destructive NPF may well work (and it may even have a positive role) when there is a high degree of cultural/social cohesion. When the NPF is adopted in a diverse polity like the EU, its hero- versus-villain feature can lead to further polarization, exclusion, and annihilation of the villains. Nonviolent struggles all around the world have shown that when there is a strong polarization, the narrative has to highlight a future of stable conflict resolution in a constructive mode.

CONCLUSION

We set out to challenge the rising populist narrative on the EU. Instead of focusing on the evidence against single populist arguments, we proposed to fight narratives with narratives. It is wrong to always or only fight fire with fire (Weale, 2019). But, for advocacy and political engagement, it is correct to appraise whether we can fight a particular narrative with a counter-narrative that meets the criteria highlighted in our Introduction. Certainly, ours is only one way to catch the populist fire, others may prefer to fight it with evidence-based policy and reasoned argumentation. However, narratives are not the opposite of evidence, neither do they exclude evidence. They are devices to represent a full range of elements, including evidence, and, through the discursive representation of the elements, they connect problems to causal mechanisms.

Our contribution to the NPF comes in four parts. First, it shows how the empirical homework connects with the normative objective. Second, it sheds light on the implications (in terms of responsibility and clarity on the implications of normative positions) of an analysis of a complex institutional project: integration and its institutions in Europe. Third, it introduces the concepts of destructive and constructive usages of the NPF when operating in normative mode. And fourth, it puts forward a suggestion when the context is one of polarization. Namely, we argue that we should not catch the fire of a polarizing narrative with another polarizing narrative but work on a constructive narrative that adds and integrates at the macro level.

We acknowledge the limitations of our exercise. Ours is a crafted narrative, but there are limits to how one can generate narratives out of whole cloth. Besides, we cannot tell whether nonviolent narratives, if adopted by pro-European political leaders or parties, would bring them more votes or not. Our vision of nonviolence is not anchored to charismatic leaders, it is a bottom-up vision. However, trust in the narrator is an important factor, and many current leaders—if they were to endorse nonviolence—would be hopelessly engaging in communication out of character. The nonviolent narrative we outlined in this chapter is different from the one embraced by the European Commission and the EU institutions, although the response to the COVID-19 pandemic has re-orientated the EU towards a Green Deal for Europeans and resources for a more inclusive, sustainable future. The pandemic has also shed light on the feeling of unity in fragility among European citizens. But all this does not provide evidence that nonviolence is or will be present on the scene of EU politics and policy.

With its limitations, our contribution to the study of narratives is nonetheless original. We contributed to the literature by showing the potential of the NPF for normative analysis, advocacy, and engagement. Our effort resonates with Jones and McBeth's (2020) call for a more relevant NPF. They leverage the NPF to defend democracy and science from Trump's attacks. Lybecker and McBeth recently developed recycling and river restoration narratives with the potential to reconcile liberals and conservatives. In our case, the NPF allows us to build a narrative of European integration that is critical of the EU as it now stands, yet it offers a way forward that is radically different from the populist narrative. It is designed to work on segments of the current populist electorate without falling into separation. Our work is also mindful of the ethical implications of normatively oriented NPF researchers. We argued that a normative NPF stance can be deployed to construct, reconcile, and improve, but the opposite may also happen, leading to narratives oriented to polarisation and conflict between the hero and the villain. More research is needed on the challenges and opportunities of using NPF to craft alternative narratives and for what purposes:

the problems around the triad hero-narrator-enemy; the destructive or constructive quality of normative analysis; the possibility to extend this approach to meso and micro level analyses; and finally, there is much to learn from the limitations and cases in which the approach we pursued does not work.

Acknowledgments: We wish to acknowledge support from the UACES Europe Nonviolence Network 2021-2023 https://www.uaces.org/networks/european-nonviolence-network. We are grateful to Mike Jones and the other contributors to the volume for their comments. We also wish to thank Theofanis Exadaktylos, Jonathan Kamkhaji and Gaia Taffoni for their suggestions on an early draft. The usual disclaimer applies.

REFERENCES

Adler-Nissen R., Pouliot V. 2014. Power in Practice: Negotiating the International Intervention in Libya. *European Journal of International Relations* 20: 899-911.

Anderson, B. 1983. *Imagined Communities*. London: Verso.

Baldoli R. 2018. *Reconstructing Nonviolence. A New Theory and Practice for a Post-Secular Society*. Abingdon: Routledge.

Baldoli, R., Radaelli, C.M. 2019. What Has Nonviolence Got To Do with the EU?, *Journal of Common Market Studies*. 57(5): 1165-1181.

Bartkowski, M.J. 2013. *Recovering Nonviolent History: Civil Resistance in Liberation Struggles*. Boulder, CO: Lynne Rienner.

Bennhold, K. 27 December 2018. Germany's Far Right Rebrands : Friendlier Name, Same Doctrine, *The New York Times*.

Bohemen, S., Koster, W. & Waal, J. 2018. Euroscepticism among Dutch Leftist and Rightist Populist Constituencies: How can the U-Curve be Understood? *Journal of Common Market Studies* 57: 371-387.

Boyte, H. C. 2008. *The Citizen Solution: how you can make a difference*. St. Paul: Minnesota Historical Society Press.

Briggs, R. and Goodwin, M. 2012. We need a better understanding of what drives right-wing extremist violence. http://blogs.lse.ac.uk/politicsandpolicy/archives/24325 (accessed on 4 Aug 2021).

Chaban, N., Miskimmon, A., O'Loughlin, B. 2017. The EU's Peace and Security Narrative: Views from EU Strategic Partners in Asia. *Journal of Common Market Studies*, 55(6):1273–1289.

Capitini, A. (Original 1968) 1999. *Il Potere di Tutti* (The Power of All). Perugia: Guerra.

Chenoweth, E., Stephan, M. J. 2011. *Why Civil Resistance Works: The Strategic Logic of Nonviolent Conflict*. New York: Columbia University Press.

Crow, D. and Jones, M. 2018. Narratives as tools for influencing policy change, *Policy & Politics*, 46(2): 217–34.

deLeon, P. 1997. *Democracy and the Policy Sciences*. Albany: SUNY.

Diez, T. 1997. International ethics and European integration: Federal state or network horizon? *Alternatives: Global, Local, Political* 22(3): 287-312.

Dolci, D. 2009. *Banditi a Partinico*, Palermo: Sellerio.

European Parliament, 2008. Resolution on Annual Report on Human Rights in the World 2007 and the European Union's policy on that matter. https://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2009:271E:0007:0031:EN:PDF (accessed on 5 August 2021).

Finns Party, 2019. The Finns Party European Union Policy https://www.perussuomalaiset.fi/wpcontent/uploads/2019/05/EUpolitiikkaENG_2019.pdf

(accessed on 4 Aug 2021)

Galtung, J. 1973. *The European Community: a superpower in the making*. Oslo: Universitetsforlaget.

Galtung, J. 1992. *The way is the goal: Gandhi today*. Gujarat Vidyapith.

Galtung, J. 1996. *Peace by Peaceful Means: Peace and Conflict, Development and Civilization*. London: Sage.

Gandhi MK. 1997. *'Hind Swaraj' and Other Writings*, Cambridge: CUP.

Halikiopoulou, D. , Nanou, K. and Vasilopoulou, S. 2012. The paradox of nationalism: The common denominator of radical right and radical left euroscepticism. *European Journal of Political Research*, 51: 504-539.

Havel V., et. al. 1985. *The Power of the Powerless*, London: Hutchinson.

Heinisch, R,.D. McDonnell and A. Werner 2020. Equivocal Euroscepticism: How populist radical right parties can have their EU cake and eat it, *Journal of Common Market Studies*. Early view.

Hooghe L., Marks G. 2017. Cleavage theory meets Europe's crises: Lipset, Rokkan, and the transnational cleavage. *Journal of European Public Policy* 25(1): 109–135.

Kratochvíl, P. & Sychra, Z. 2019. The end of democracy in the EU? The Eurozone crisis and the EU's democratic deficit, *Journal of European Integration*, 41:2, 169-185.

Innerarity, D., White, J., Astier, C. and A. Errasti (Eds.) 2018. *A New Narrative for a New Europe*. Rowman & Littlefield International.

Jahanbegloo, R. 2014. *Introduction to Nonviolence*. Basingstoke: Palgrave Macmillan.

Jones, M. D., and M. K. McBeth. 2010. A Narrative Policy Framework: Clear enough to be wrong?. *Policy Studies Journal* 38: 329-53.

Jones, M.D. and M.K. McBeth 2020. Narrative in the time of Trump: Is the narrative policy framework good enough to be relevant? *Administrative Theory and Praxis* 42(2): 91-110.

Jones, M.D. and D.A. Crow 2017. How can we use the 'science of stories' to produce persuasive scientific stories? *Palgrave Communications* 3, 53.

Kaiser, W. and R. McMahon. 2017. Narrating European Integration: Transnational actors and stories. *National Identities* 19(2): 149-160.

Kelly, P. 2001. *Nonviolence Speaks to Power*. Honolulu: Center for Global Nonkilling.

King M.L. 2010 (Original 1963) *Strength to Love*. Minneapolis, MA: Fortress Press, 43–52.

Laclau, E. 2005. *On Populist Reason*. London, Verso.

League (LEGA) 2018). Programma di Governo. Salvini Premier. La Rivoluzione del Buonsenso, https://www.leganord.org/component/phocadownload/category/5-elezioni?download=1514:programma-lega-salvini-premier-2018 (accessed on 4 Aug 2021).

Lybecker, D. L., Mcbeth, M. K. & Kusko, E. 2013. Trash or treasure: recycling narratives and reducing political polarisation. *Environmental Politics*, 22, 312 - 332.

M5S/ Five Star Movement 2019. Nuova Europa: Più Democrazia Diretta e Stop Privilegi, https://www.cnos-scuola.it/sites/default/files/Scheda_programma.pdf (accessed on 4 Aug 2021).

McBeth, M.K., Lybecker, D.L. and Garner, K.A. (2010), The Story of Good Citizenship: Framing Public Policy in the Context of Duty-Based versus Engaged Citizenship. *Politics & Policy*, 38: 1-23.

McBeth, M.K., Lybecker, D.L., Husmann, M.A. 2014. "The Narrative Policy Framework and the Practitioner: The Case of Recycling Policy." In E A Shanahan, MD Jones and MK McBeth (Eds) *The Science of Stories: Applications of the Narrative Policy Framework in Public Policy Analysis*.

McBeth M.K., Lybecker D.L., Stoutenborough J.W., Davis S.N., Running K. 2017 Content matters: Stakeholder assessment of river stories or river science. *Public Policy and Administration*: 32(3):175-196.

McMahon, R. 2017. Fall and Rise: Normativity in Political Science EU Studies *Journal of Common Market Studies* 56: 462-479.

Manners, I., Murray, P. 2016. The End of a Noble Narrative? European Integration Narratives after the Nobel Peace Prize *Journal of Common Market Studies* 54:185-202.

Mantena, K. 2012. Another Realism: The Politics of Gandhian Nonviolence. *American Political Science Review* 106: 455-470.

Mudde C. 2004. The populist Zeitgeist. *Government and Opposition* 39(4): 542–563.

Muller, J.M. 2002. *Non-violence in Education*, Paris: UNESCO.

Nagler, M. N. 2004. *The Search for a Nonviolent Future: A Promise of Peace for Ourselves, Our Families, and Our World* Makawao HI, Inner Ocean.

Nagler M.N. 2014. *The Nonviolence Handbook: A Guide for Practical Action*, San Francisco, CA: Berrett-Koehler Publishers.

Ney, S. 2014. The governance of social innovation: Connecting meso and macro levels of analysis. In M.D. Jones, E.A. Shanahan and M.K. Mc Beth (Eds.) *The Science of Stories: Applications of the Narrative Policy Framework in Public Policy Analysis*, New York, Macmillan: 207-234.

Norris, P., & Inglehart, R. 2019. *Cultural Backlash: Trump, Brexit, and Authoritarian Populism*. Cambridge: Cambridge University Press.

Pannella, M. 2007a. *A sinistra del PCI. Interventi parlamentari 1976-1979*. Milan: Kaos.

Pannella, M. 2007 b. *Contro i crimini di regime. Interventi parlamentari 1980-1986*. Milan Kaos.

Peterson, E. 2018. Political information has bright colors: Narrative attention theory. *Policy Studies Journal* 46(4): 828-842.

Pirro A.L.P. and S. van Kessel 2017. United in opposition? The populist radical right's EU-pessimism in times of crisis, *Journal of European Integration*, 39:4, 405-420.

PiS, Polski Model Państwa Dobrobytu, http://pis.org.pl/files/Program_PIS_2019.pdf (accessed on 4 Aug 2021).

Podemos 2019. Programa de Podemos. para una Europa con más democracia, derechos, justicia y futuro https://podemos.info/wp-content/uploads/2019/05/Programa_completo_europeas_Podemos.pdf (accessed on 4 Aug 2021).

Popovic, S. 2015. *Blueprint for Revolution*. New York: Spiegel & Grau.

Popovic, S. 2018. What really scares populists? Grassroots campaigning and humour, *The Guardian*, 7 February 2018.

Rassemblement National 2019. Pour une Europe des Nations et des Peuples, https://rassemblementnational.fr/telecharger/publications/programme-euro2019.pdf (accessed on 4 Aug 2021).

Schock, K. 2013. The practice and study of civil resistance. *Journal of Peace Research* 50: 277-290.

Shanahan, E.A., M.D. Jones, M.K. McBeth and C.M. Radaelli. 2018a. The Narrative Policy Framework, in: C.M. Weible and P.A. Sabatier (Eds.) *Theories of the Policy Process*, New York: Routledge.

Shanahan, E.A., Raile, E.D., French, K.A., McEvoy, J. 2018b. Bounded Stories, *Policy Studies Journal* 46(4): 922-948.

Sharp, G. 1973a. *The Politics of Nonviolent Action. Part One: Power and Struggle*. Boston: Porter Sargent Publishers.

Sharp, G. 1973b. *The Politics of Nonviolent Action. Part Two: The Methods of Nonviolent Action*. Boston: Porter Sargent Publishers.

Sievers, T and M D Jones 2020. Can power be made a viable concept in policy process theory? Exploring the power potential of the narrative policy framework. *International Review of Public Policy*, 2(1): 90-114. https://doi.org/10.4000/irpp.942.

Sombatpoonsiri, J. 2017. Rethinking nonviolent resistance in the face of right-wing populism, *The Conversation*, available at: https://theconversation.com/rethinking-nonviolent-resistance-in-the-face-of-right-wing-populism-73629

Sombatpoonsiri, J. 2018. Rethinking Civil Resistance in the Face of Rightwing Populism: A Theoretical Inquiry, *Journal of Peacebuilding & Development*, 13:3, 7-22.

Tuohy, C. H. 2019. Policy Narratives as Rhetorical Bridges: Theory and Directions for Inquiry, paper presented at the workshop on *Policy Narratives, Populism and the Institutions of Liberal Democracy: Challenge and Response*, University College London, February 11-12, 2019.

Tully, J. 2014. *On Global Citizenship*, London and New York: Bloomsbury.

Veselkova, M. and M. Beblavy 2014. From selectivity to universalism: How macro-level policy narratives shape meso-level policy outcomes? ECPR General Conference, Glasgow, 3-6 September.

Vinthagen, S. 2015. *A Theory of Nonviolent Action: How Civil Resistance Works*. London: Zed Books.

Vox 2019. Programa electoral para las elecciones europeas de 2019. https://www.voxespana.es/wp-content/uploads/2019/05/Programa-Europeas-2019_web.pdf (accessed on 4 Aug 2021).

Weale, A. 2018. *The Will of the People: A Modern Myth*, Cambridge: Polity.

Weale, A. 2019. The limits of policy narratives, paper presented at the workshop on *Policy Narratives, Populism and the Institutions of Liberal Democracy: Challenge and Response*, School of Public Policy, University College London, February 11-12, 2019.

Weible, C. M., P. A. Sabatier, and K. McQueen. 2009. Themes and Variations: Taking Stock of the Advocacy Coalition Framework. *Policy Studies Journal* 37 (1): 121–140.

Weyland K. 2017. Populism: A political-strategic approach. In: Rovira Kaltwasser C, Taggart P, Ochoa Espejo P and Ostiguy P (Eds.) *The Oxford Handbook of Populism*. Oxford: Oxford University Press, pp.48–72.

Zheng, J. 2017. Does Europe Matter? The Role of Europe in Chinese Narratives of 'One Belt One Road' and 'New Type of Great Power Relations', *Journal of Common Market Studies*, 55(5): 1162–1176.

CHAPTER 9: A NARRATIVE POLICY FRAMEWORK SOLUTION TO UNDERSTANDING CLIMATE CHANGE FRAMING RESEARCH

Erika Allen Wolters*, School of Public Policy, Oregon State University
Michael D. Jones, Department of Political Science, University of Tennessee
Kathryn Duvall, School of Public Policy, Oregon State University

ABSTRACT

The climate change framing literature is vast. So much so that researchers—whether seasoned framing scholars or those foraying into climate change framing research for the first time—can easily be overwhelmed by the sheer volume of studies, the vast array of concepts deployed, the variation in how these same concepts are operationalized, the nuance of a barely numerable assortment of contexts, and the effects all of the aforementioned have on interpreting findings. Here we offer a synthetic review of said literature, focusing on adaptation and mitigation framing studies and findings. In so doing, we first briefly distill the overall developmental arc of climate change framing research. We then provide a conventionally styled thematic overview of the mitigation and adaptation climate change studies. Among other conclusions, we find that while there has been a proliferation of climate change framing research, the findings and the studies themselves are often quite disparate from one another. Moreover, as the literature speaks to itself intermittently and in an ad hoc fashion, it is not readily apparent how climate change framing studies holistically fit together. As a solution to this problem, we offer the Narrative Policy Framework (NPF) as a narrative heuristic to help climate change researchers and communicators organize and understand the literature. We argue that an NPF integration of this inherently unwieldy literature increases the likelihood of research utilization and improves the ability of climate change communicators to inform people about the risks of climate change.

*Corresponding author: erika.wolters@oregonstate.edu

To cite the chapter: Erika Allen Wolters, Michael D. Jones, and Kathryn Duvall. "A Narrative Policy Framework Solution to Understanding Climate Change Framing Research" Chapter 9 in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*. Edited by Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan. Bozeman, MT: Montana State University Library. 222-242. doi.org/10.15788/npf9

INTRODUCTION

Climate change is arguably the most difficult collective action problem ever faced by the human race (Harris, 2007). The projected effects are vast, stretching across both natural and social systems. Increased average global temperatures are predicted to have serious adverse effects on a variety of fundamental human and non-human needs, like food security, water availability, and livable land areas (IPCC, 2018). The scope of cooperation needed spans those same systems and involves billions of people with diverse and often competing interests. However, one of the problems with addressing climate change has been communicating the threats in a way that both accurately informs and motivates action. Attempting to address these aspects of the climate change problem, a large and growing number of framing studies have emerged over the past several decades. To put it mildly, these studies are incredibly diverse. Given the ambiguous definition of frames, the variation in theoretical approaches, methodologies, standards of rigor, academic literature referenced, and a host of other dimensions, coupled with the large volume of studies, climate change framing research can be very difficult to navigate. In this chapter, we argue that the Narrative Policy Framework (NPF) can provide a valuable narrative heuristic that can help both researchers and practitioners come to terms with this complex literature.

To the above end, we first provide a broad overview of the climate change framing literature with the aim of identifying important synergies, trends, and themes. Our approach is not comprehensive. Rather, and in an effort to avoid unnecessary redundancies, we focus primarily (but not exclusively) on peer-reviewed research post-2009, when Matthew Nisbet's seminal piece "Communicating climate change: Why frames matter for public engagement" called attention to the potential of increasing public engagement with climate change through framing in a relevant and consistent way (2009).[38] Because the literature on climate change framing is so vast, we narrowed the scope by focusing on peer-reviewed articles that explicitly identified the use of frames and focused specifically on climate change mitigation and/or adaptation. In the subsequent section, we offer the NPF as a narrative heuristic to help researchers and communicators engage in an ongoing synthesis of the literature. We close with a discussion of the implications of an improved synthesis offered by the NPF for both framing researchers and communicators. Such a strategy, we argue, facilitates future integration of diverse findings in a way that is intuitively understood, thereby increasing the likelihood of utilization and furthering the goal of effectively informing people about the risks of climate change and engaging the public to garner support for climate change policies.

CLIMATE CHANGE FRAMING HISTORY AND ORIGINS: A BRIEF OVERVIEW OF RECENT SUBSTANTIVE, THEORETICAL, AND METHODOLOGICAL DEVELOPMENTS

Matthew Nisbet (2009) describes the general evolution of framing research as dating back to seminal work conducted by Goffman (1974) in the field of anthropology and to

[38] There are many reviews relevant to the climate change framing literature that offer a different take than the one presented here (see for example, Marquart-Pyatt et al., 2011; Dewulf, 2013; Weaver et al., 2017).

psychologists Kahneman and Tversky's Nobel Prize winning work in the 1970s (1979). From this genesis, framing research expanded to other social science disciplines, with discipline-specific foci, but with a general disposition of understanding how best to describe communications and, most importantly, their effects and on whom. As one might expect, the wide usage of the framing concept across varied contexts, embracing different methodological and academic disciplinary standards, and serving the needs of different research questions, has led to incredible variation in applications of the concept. Despite definition-defying usage, in a most general sense, the concept of frames can be understood as the way people communicate about a specific idea or thing of importance—the communicative casing in which we surround something we deem important enough to speak to. Or in academic parlance, we might describe the concept as the oft-cited definition provided by Chong and Druckman, which defines frames as "the set of dimensions that affect an individual's evaluations" (2007, p. 105). With such an ambiguous theoretical characterization, it should be no surprise that there is no single agreed upon definition of frames. This observation holds for specific framing research applications in the area of climate change as well. Thus, in our review of the climate framing literature, we also expectedly find incredible variation in geographic context, methodology, and theoretical foci.

In our review of the literature, the vast majority of research on climate change framing has been conducted in and on Western-style democracies with the most robust economies. Such studies tend to focus on the United States (e.g., Boykoff, 2007; Boykoff & Boykoff, 2007; Ford & King, 2015; Hart & Nisbet, 2012; Nisbet et al., 2013), United Kingdom (e.g., O'Neill, 2013; Boykoff, 2007), Australia (e.g., Hurlstone et al., 2014; McEvoy et al., 2013), Canada (e.g., Ahchong & Dodds, 2012; Scannell & Gifford, 2013) and Europe (e.g., Bertolloti & Catellani, 2014; Shehata & Hopmann, 2012; Olausson, 2009). Far fewer studies are multinational queries (e.g., Schmidt et al., 2013) or focused on countries outside of developed Western democracies. Rarer as they are, such studies do exist, such as Mir et al.'s study in Tehran, Iran (2016) and Azmi et al.'s study of Malaysia (2015). The tilt toward developed countries, which bear a large burden of responsibility for the current climate predicament, no doubt creates a larger narrative that favors the perspectives of those countries.

One need not spend much time in the climate framing literature to become overwhelmed by the variety of theoretical approaches and the methodologies applied in the service of those theories. For example, our review identified theoretical foci invoking construal level theory (e.g., Scannell & Gifford, 2013; Spence & Pidgeon, 2010), emotion (e.g., O'Neil & Nicholson-Cole, 2009), knowledge deficits (e.g., Kellstedt et al., 2008), interpersonal attachment (e.g., Scannell & Gifford, 2013), motivated reasoning (e.g., Hart & Nisbet, 2012), moral foundation (e.g., Severson & Coleman 2015), principal-agent (e.g., Howell et al., 2016), psychological distance (e.g., Singh et al., 2017), reflexive modernization (e.g., McCright et al., 2016), resilience (e.g., McEvoy et al., 2013; Wong-Parodi, 2015), risk (e.g., Carrico et al., 2015), and social dominance (e.g., Devine-Wright et al., 2015), among many others. Across the theories, we also find substantial methodological diversity, including content analysis (e.g., Boykoff, 2007; Boykoff & Boykoff 2007; O'Neill, 2013), interviewing techniques (Bosomworth, 2015; Ung et al., 2015), survey approaches (e.g., Bosomworth, 2015; Howell et al., 2016; Mir et al., 2016; Semenza et al., 2011; Singh et al., 2017; Ung et al., 2015) various experimental approaches (e.g., Evans et al., 2014; Howell et al., 2016), constant comparative analysis and grounded theory (e.g., Sapiains

et al., 2016); and, of course, these methods also expectedly vary substantially in terms of how they are applied.

Adding yet more dimensions to an already complex collection of theory and methods, we also find an impressive number of framing types that are , including but not limited to attribution, or identifying factors responsible for climate change (e.g., Hardisty, et al., 2010; Hart, 2011; Jang, 2013; Parag et al., 2011); belief systems and ideology such as worldviews and political ideology (e.g., Benjamin, et al., 2017; Feinberg & Miller, 2011; Hart & Nisbet, 2012; Levine & Klein, 2017; Myers et al., 2012); distance, or perceived proximity to climate change impacts (e.g., Devine-Wright et al., 2015; Scannel & Gifford, 203; Spence & Pigeon, 2010; Wiest et al., 2015); efficacy, a belief that individual or collective actions can have a positive impact on mitigating climate change (Ung et al., 2015, Bertolotti & Catellani, 2014; Bilandzic & Soentgen 2017; Gifford & Corneau, 2011; Hurlstone et al., 2014; Morton et al., 2011; Wiest et al. 2015); prospect, particularly examining loss versus gain in taking action on climate change, (e.g., Mir et al., 2016), thematic and episodic, that vary in breadth and depth of a frame (Hart, 2011); and wording frames, for example, using the term climate change versus global warming (Benjamin et al., 2017). Oftentimes researchers are also examining more than one type of frame (e.g., McCright et al., 2016; Myers et al., 2012), and theoretical approaches frequently occur in conjunction with one another. It is also important to note that the line between a framing theory and a framing type can be quite difficult to discern. Consequently, when you intersect the possible theoretical, methodological, and framing type dimensions, it produces a daunting multidimensional picture that is more than a little resistant to efforts of categorization.

Our observations about the climate change framing literature mirror more general observations made by scholars about the framing literature (e.g., Kinder, 2007; Cacciatore et al., 2016), which is to say that it is both vast and unwieldy. To illustrate the usefulness of the NPF in potentially taming this literature, our approach here is to first focus on the two dominant substantive characterizations of the problems climate change possess: mitigation and adaptation. To guide our review of the mitigation and adaptation climate framing literature, we rely on categorizing language common to climate change framing research, which includes discussing findings and studies in terms of how they relate to characteristics internal to individuals, factors external to individuals, (e.g., Maibach et al., 2008; Marquart-Pyatt et al., 2011), and the structuring of frames themselves.

Climate Change Adaptation and Mitigation Framing Studies

Mitigation and adaptation are often understood as separate climate change issues, with mitigation focusing on stemming the causes of climate change and adaptation focusing on responding to climate change outcomes (e.g., Dewulf, 2013). Our review of the recent literature suggests far fewer adaptation than mitigation studies. However, Dewulf suggests that "these problem framings and action strategies can be seen as complementary" (2013, p. 324), thus our discussion proceeds by speaking to these two bodies of findings in tandem. One way to begin to grapple with this literature is to start with the various ways that researchers operationalize framed communication structures under investigation. Here we discuss five common framing structure themes seen in the adaptation and mitigation framing literature: issue, attribution, gains and

losses, thematic and episodic, and competitive. We emphasize that these categories are by no means mutually exclusive given the diversity of theory and methods applied in the literature.

Adaptation and Mitigation Framing Structures

Issue frames. Climate change framing research frequently focuses on how people respond to different frames. Among the mitigation and adaptation studies, there are many frame types associated with one or more policy-related dimensions. We refer to this loose collection of dimension operationalizations as issue framing structures. Here we highlight a few of the more notable issue frames. In climate change adaptation research, one of the most consistently effective framing types in engaging people in climate change support is the public health frame (Maibach et al., 2010; Petrovic et al., 2014; Semenza et al., 2011). For example, Myers et al. (2012) found that regardless of an individual's belief in climate change, participants responded positively to public health framing of climate change. This support often manifests in traditionally oppositional populations as well. For example, Maibach et al. (2012) found that even those who were hostile or skeptical to climate change were more likely to be supportive of government policies that aimed to mitigate the public health consequences of climate change. A fairly recent study by Petrovic et al. (2014) found that conservatives were more supportive of policies when air pollution was framed as a public health issue. While most studies find a strong association between the public health frame and climate change policy support, we identified at least one study that did not (McCright et al., 2016). Overall, current findings are in line with earlier scholarship showing the public health frame to be very effective, independent of other factors (Maibach et al, 2010).

Other studies focus on policy areas such as national security, the environment, or the economy. We do see some patterns here. For example, attempts at framing climate change as a national security issue have not been as successful as the public health frame, particularly among those who are more skeptical or deny climate change (Myers et al., 2012). Research has shown that instead of having no effect, the national security frame can further alienate those who are more conservative or Republican-leaning and reinforce skepticism and inaction (Hart & Nisbet, 2012). Related to the environmental framing structure, one adaptation study by Myers et al. (2012) examined how environmental frames affected emotional responses (e.g., hope or anger) to climate change. The researchers found that those who are already skeptical of climate change remained neutral in their emotional responses. Regarding economic frames, several studies examining climate change mitigation have found increased support for climate policies (McCright et al., 2016; Parag et al., 2011; Severson & Coleman, 2015) as well as increased support among Republicans and Independents to voluntarily pay for mitigation when it is framed as an offset rather than a tax (Hardisty et al., 2010).

Resilience frames are an interesting and popular focus in the framing literature. Usually understood as an alternative to adaptation, the concept of resilience is more than just adapting to one's environment. Rather, as Holling (1973) defines the concept, it is "a measure of persistence and the ability to absorb change and disturbance" (p.14). For example, Wong-Parodi et al. (2015) compared resilience and adaptation frames in terms of their impact on concern and behavioral intentions. Study participants were asked to write an imaginative essay responding to the frames. The researchers found that the resilience frame elicited more caution and less self-efficacy in

preparatory actions, whereas the adaptation frame lowered levels of concern but encouraged more self-preparedness and responsibility for action. In a primarily descriptive study, McEvoy et al. (2013) examine the Australian government's public campaign attempting to get Australians to rethink their national identity by focusing on their potential resilience toward climate change and encouraging people via their national identity to proactively work on climate change adaptation strategies.

Adaptation and mitigation can also be treated as issue frames (e.g., Carrico, et al., 2015; Howell et al., 2016). For example, Howell et al. (2016) exposed different respondent groups to either mitigation or adaptation frames. For participants with pre-existing high concern for climate change, mitigation was more engaging, whereas participants with low pre-existing concern found adaptation more engaging. Additionally, those participants with low pre-existing concern were disengaged in the mitigation policy frame.

Attribution Frames. Attribution theory "assumes a sequence in which cognitions of increasing complexity enter into the emotional process to further refine and differentiate experience" (Weiner 1985, p. 560). Attribution theory applies to a diverse set of studies leveraging disparate concepts that attempt to explain how individuals understand events in terms of how they attribute emotions (e.g., Hart, 2011), causes (e.g., Jang, 2013), and responsibility (e.g., Hart, 2011). For example, in Jang's 2013 study using causal responsibility framing, Jang found that US study participants were more likely to attribute climate change to natural causes if they read an article that said the United States was the biggest contributor to climate change. However, if participants read that China was the largest contributor to climate change, they were more likely to say that climate change is anthropogenic. Similarly, Hart's (2011) research finds that frames attributing societal responsibility are more effective at generating support for climate change mitigation than are personal responsibility frames. Essentially, people are more supportive of climate change mitigation if the blame for the problem is attributed to "others," e.g., either another country or society at large versus assuming personal (both individually and/or their country of citizenship) responsibility.

Prospect (Equivalency) Frames. One of the more generalizable framing structures (de Vreese et al., 2001), prospect theory contends that an outcome can be exactly the same, but if framed as potential gains or potential losses, individuals will prefer the gains option (i.e., Kahneman & Tversky, 1979). We identified several such studies on climate change mitigation frames (e.g., Bertolotti & Catellani, 2014; Hurlstone et al., 2014). For example, a recent study by Mir et al. (2016) found that gain framing was an effective way to increase participants' willingness to take mitigating climate change action. However, other studies have found that the use of loss vs. gain framing does little to encourage support for climate change mitigation, and in some cases has the opposite effect and can result in decreased overall support (e.g., Wiest et al., 2015; Spence & Pidgeon, 2010). Relatedly and regarding climate change adaptation, Morton et al. (2011) found that the use of positive framing (a frame that discussed avoiding loss) correlated with higher intentions of changing behavior, whereas a negative frame (focused on losses due to climate change) resulted in less commitment to behavior change. Lastly, a mitigation study by Bilandzic et al. (2017) determined that a gain-negative frame (performing mitigation to avoid climate change impacts), in addition to appealing to a sense of guilt, was effective in stimulating willingness to change behavior, while playing on fear was less effective.

Thematic and Episodic Frames. One of the more theoretically generalizable framing structures (de Vreese et al., 2001), the now classic thematic and episodic approach (Iyengar, 1994) to frames was referenced regularly (e.g., Boykoff & Boykoff, 2007; McCright, et al., 2016). This approach delineates a difference between episodic frames that focus on individuals, singular events, over short periods and emphasizes individual behavior from thematic frames that take a broad view of an issue, focusing on longer periods, and which tend to draw attention to structural explanations of a problem. For example, Hart (2011) makes polar bears the symbolic focus of climate change within experimental mitigation framing treatments. Hart finds that thematic framing (focusing on the polar bear population) leads to increased support for mitigation, while episodic (focusing on one polar bear) framing had little to no effect.

Competing Frames. Much of the climate change framing literature is experimental and tends to focus on the effects of a single type of frame. However, like all issues transported outside the lab and into the real world, climate change is more likely experienced by people as multiple competing frames, as people in the real world are regularly exposed to conceptually different ways of seeing the same problem. Addressing this issue, Nisbet et al. (2013) offered one of the earliest studies examining the effects of competitive framing on climate change mitigation. Exploring how competitive (multiple opposing message frames) vs. non-competitive (single frame) influences support for climate mitigation policies, Nisbet et al. (2013) found that when controlling for open-mindedness, ideology, and climate change belief, competitive and non-competitive framing show no significant impact on participant attitudes. Along the same lines, McCright et al. (2016) experimentally employ several different issue frames (economic, national security, public health, and Christian stewardship) all coupled with an active climate denier frame (which had a stronger appeal to conservatives). They found the issue frames did little, while the denial frames powerfully reduce multiple dimensions of climate change supporting dispositions and preferences.

Our conventional categorization scheme identifies several general trends within this literature, including increased support for climate change policies if framed as a public health issue, in economic terms, if the blame (attribution) can be assigned to others, if focused on gains (either positive or avoidance of negative), and by sticking to broader thematic frames.

Adaptation and Mitigation Internal Factors

Another way to categorize climate change mitigation and adaptation framing research is in terms of the characteristics internal to individuals as drivers of important climate change outcome dependent variables, such as perceptions of risk, willingness to act, belief in climate change, support for mitigation or adaptation policies, and the like, and how these drivers affect reactions to the various types of frames deployed in climate change framing research. Common among such queries that incorporate internal characteristics are the usual suspect demographic characteristics such as age, income, education, knowledge, and gender. It is important to note that while these variables may not always be the focus of a study (i.e., control variables), they are often pseudo-obligatory variables in models and research designs and frequently addressed (albeit, piecemeal) in discussions of findings. Consequently, we view them as important in coming to terms with this literature and—more importantly—to grappling with the overall effectiveness of climate change frames.

Age and income are frequently found as elements of climate change framing research designs. For example, the effects of age on climate change beliefs (a common dependent variable examined in climate change framing studies) trend in a general direction but do show some nuance. In general, younger people are more accepting of climate change as a fact (e.g., Lockwood, 2011) and are also more likely than older people to believe in climate science (e.g., McCright et al., 2016). However, beyond these generalities, age-relevant climate framing findings can become quite nuanced. For example, O'Neill and Hulme (2009) observe that local images of threatened areas are likely more salient with older individuals than younger, yet other research suggests it is not clear what motivates older individuals to change their climate-related behaviors (Gifford & Comeau, 2011; Parag et al., 2011). Research that includes income has produced quite mixed results. Higher income has been associated with higher climate change knowledge (Gifford & Comeau, 2011) as well as less willingness to embrace carbon tax and carbon allowance policies that would mitigate climate change (Parag et al., 2011). However, several studies found that income was not a significant indicator of support for climate change policies (e.g., McCright et al., 2016; Nisbet et al., 2013).

Gender can also be characterized as an important internal characteristic. For example, across different framing types, important dependent variables such as belief in climate change and willingness to change behavior in order to mitigate climate was gendered, with many studies citing that women are more supportive of climate change policies than men (e.g., Gifford & Comeau, 2011; Semenza et al., 2011; Scannell & Gifford, 2013; Lockwood, 2011). Specifically, in their study using multiple frames, McCright et al. (2016) found that women were more likely than men to believe that policies seeking to reduce carbon emissions in the United States would have a positive impact on the economy, national security, and public health.

Education in general and climate change knowledge in particular are also identified as important variables in understanding framing effects, although with inconsistent outcomes. For example, in Ung et al.'s (2015) study on climate change adaptation in Cambodia, participants who had more education were more likely to have taken part in anticipatory adaptation activities than those with less education. Likewise, in some studies, higher levels of education are found to be correlated with a greater likelihood of belief that climate change is real (e.g., Schuldt et al., 2011). On the other hand, many studies that control for education found no significant impact on climate change beliefs (e.g., McCright et al., 2016; Baumer et al., 2017; Semenza et al., 2011; Scannell & Gifford, 2011; Nisbet et al., 2013). Specifically related to climate change knowledge, Gifford and Comeau (2011) found that higher income was associated with more accurate knowledge about climate change, although other studies have found no correlation between climate change knowledge and support for climate change policies (e.g., Hart & Nisbet, 2012).

Other factors internal to individuals which are found to influence engagement with climate change frames are perceived efficacy, climate denial, and emotional frames. For example, perceived efficacy has been found to be positively associated with increased engagement with climate change adaptation and mitigation policies as well as behaviors (Ung et al., 2015; Dickinson et al., 2013; Benjamin et al., 2017). On the other hand, people with an internalized sense of climate change denial have been studied with mixed results. McCright et al. (2016) found that where other frames have no effect, denial frames reinforce existing climate denial sentiments in individuals, whereas other studies have found that pre-existing climate

denial can be mitigated with frames that focus on positive externalities, like public health or the economy (Bain et al., 2012; Maibach et al., 2010).

Researchers have also examined how the use of emotional framing, such as appealing to an individual's fear, compassion, etc., is related to support for or opposition to climate change mitigation and/or adaptation. With few exceptions, what the research on emotional framing shows is that negative emotions elicited from framing, such as fear and hopelessness, can be disengaging and disempowering (O'Neill & Nicholson-Cole, 2009; Feinberg & Willer, 2011). Positive emotional appeals are found to be more effective. For example, optimism (Bilandzic, 2017), compassion (Lu & Schult 2016), and positive frames (Hurlstone et al. 2014) are found to be strong motivators for mitigation action and policy support. However, there are outlier exceptions to the above generalizations. For example, Dickinson et al. (2013) found that the use of fear-based framing was effective in increasing willingness to engage in pro-environmental behavior, and Bilandzic et al. (2017) identified guilt as a strong motivator for mitigation support, which is not an emotion straightforwardly categorized as either positive or negative. A general concern identified in the literature over emotional framing is that emotional responses are very likely short-lived (O'Neill & Hulme, 2009) and compassion fatigue can be a problem (Moser & Dilling, 2007, pp. 164–165).

Several studies explore the role of partisanship and/or political ideology in driving support for climate change mitigation and adaptation. These studies tend to find consistent mitigation support among Democrats/liberals regardless of the framing structure (e.g., Benjamin et al., 2017; Hart & Nisbet, 2012). For example, Hardisty et al. (2010) used an online survey and asked participants to state their willingness to pay a higher price for an item that was believed to contribute to climate change labeled as either part of an "offset" or a carbon "tax." They found that Democrats were likely to pay for the item regardless of how it was labeled, whereas Republicans were more likely to pay only if labeled an "offset." Similarly, Levine and Kline's (2017) study focuses specifically on an already left-leaning set of participants. They exposed respondents to public health or national security frames, finding that participants were likely to shift their views even more toward pro-environment. On the other hand, conservatives and Republicans tend to be less supportive of climate change mitigation and adaptation. For example, in a study that explored a national security frame favorable to mitigation policies (Myers et al., 2012), people who were skeptical of climate change and more conservative responded negatively to this frame, which is now popularly referred to as a "boomerang effect" (Hart & Nisbet, 2012), where the reaction to a frame is the exact opposite of the frame's intention. In terms of those in the middle of the political spectrum, moderates have been found to be more supportive of adaptation frames than mitigation (Carrico et al., 2015). However, often when researchers account for other framing dimensions, the relationship between ideology/partisanship and climate mitigation and adaptation is less straightforward. For example, Severson and Coleman (2015) examined how political leanings affected responses to moral, scientific, and economic mitigation frames. They found that a hopeful scientific frame with a focus on economic parity aligned both liberals and conservatives on climate mitigation policy support.

Overall, the review of internal factors and frames provides some insight into climate change framing. Consistently, women, people who had more self-efficacy, and Democrats/liberals were more likely to respond to climate change frames in ways that make

them more willing to change their behavior to mitigate and adapt to climate change. Use of emotional framing, such as activating an individual's sense of optimism, was most impactful with positive framing strategies and elicited more engagement in climate change adaptation or mitigation policies. However, both age and education were inconsistent in framing outcomes.

Adaptation and Mitigation External Factors

While the factors summarized above represent common characteristics internal to individuals commonly referenced in mitigation and adaptation framing research, there are also several themes identified in our conventional review of the literature that are best understood as external to individuals, or constituent factors of their environments. Here we discuss some of the more prominent and interesting external factors, including spatial or distance frames, specific geographies, and weather and climate.

Spatial or distance frames where researchers assess the spatial locus of climate change or individual proximity to climate change events are also common frames invoked within climate change mitigation and adaptation studies. In a study by Singh et al. (2017), researchers found that participants were more likely to be supportive of climate change adaptation policies if they perceived climate change as having an effect closer to home, while also finding that a temporal frame does not affect adaptation support. A local framing of climate change was further found to be effective in gaining support for climate change mitigation in research conducted by Scannell and Gifford (2013), Spence and Pidgeon (2010), and Wiest et al. (2015). However, this local frame has not always been consistent. A study by Altinay (2017) found that local framing had no effect on attaining information about climate change or supporting mitigation efforts. Instead, Altinay (2017) found that place attachment was related to people seeking information about climate change and supporting mitigation actions.

Other mitigation and adaptation studies focus on specific geographies to operationalize frame type. For example, in the adaptation literature, Evans et al. (2014) engaged survey participants from two different towns in New Zealand, both predicted to be affected by rising sea levels in the next few decades. The research found that the group which was first primed with rising sea levels and adaptation was more likely to change their behavior to mitigate climate change. This research seems to suggest that between adaptation and mitigation, mitigation can be seen as the "lesser of two evils" when it comes to climate change.

Relatedly, other research has examined the role of weather and climate on climate change risk perceptions that can impact support for mitigation and adaptation policies. A study by Akerlof et al. (2013) found that survey respondents who reported experiencing effects of climate change also showed increased perceptions of risk that "cannot be fully explained by their demographics, political party affiliation, or surrogate measures for cultural worldviews" (p. 90). Alternatively, Howe and Leiserowitz (2013) found that perceptions of local climate change impact (primarily via perceptions of weather) "is dependent not only on external climate conditions, but also on individual beliefs {and}...prior beliefs about global warming" (p. 1488). Interestingly, those who are more "dismissive" or "doubtful" of climate change were more likely to "bias recollections of seasonal climate through motivated reasoning" (Howe & Leiserowitz 2013, p. 1498).

A conventionally styled examination into external factors that influence an individual's reaction to climate change frames finds, most consistently, framing that focuses on mitigation is preferred over adaptation as this suggests avoiding the need for adaptation in the future. Less consistent were the proximity and direct experience frames. Proximity framing may be more effective in situations where people have a strong sense of place attachment, as opposed to just feeling the area they live in may be impacted, whereas direct experience frames were tempered by climate change beliefs. People who did not hold strong climate change beliefs are less likely to identify weather patterns or recall weather events that can be attributed to climate change.

THE NPF AS A CLIMATE CHANGE NARRATIVE HEURISTIC FOR ORGANIZING THE FRAMING LITERATURE

Above we have offered a good faith effort to categorize the themes and findings we identified in climate change adaptation and mitigation framing research. Our approach is best characterized as conventional, in so much that it relies on common conceptualizations and demarcations within the climate change framing literature (e.g. Marquart-Pyatt et al., 2011; Dewulf, 2013; Weaver et al., 2017). As might now be apparent to the reader, this approach suffers from several limitations. First, coverage of the themes can hardly be considered exhaustive as there are obvious themes present in the literature that we chose to not focus on or simply missed (for example, we do not cover construal level theory, e.g., Scannell & Gifford, 2013). Second, this categorization scheme is not mutually exclusive as research and findings classified in one grouping can often be simultaneously categorized in others. For example, Devine-Wright et al. (2015) examine people's global mindset, where a mindset might be understood as an internal characteristic of individuals, but the global aspect might also be understood as a spatial characteristic external to them. We see similar issues elsewhere, such as when framing studies examine the concept of local (Spence & Pidgeon, 2010; Wiest et al., 2015). However, the important problem generated by potential cross categorizations here is not so much that this study or that study (or elements within) can be concurrently categorized in multiple conceptual boxes; rather, this potential confusion of categorization conflates the actual understandings of the relationships among concepts and findings (i.e., what does it mean for a concept to both an internal and external characteristic?). Such characterizations may generate what is seemingly an arbitrary picture of how studies and findings fit together. This, we believe, exasperates an already difficult problem of grappling with an unwieldy body of research. In short, researchers and communicators need a way of holistically understanding climate change framing research that both allows the systematic integration of findings over time, but that is also still able to leverage existing syntheses of this literature.

Critiquing the sheer volume of framing research and the consequent variation in how the concept of framing is applied therein, the venerable public opinion scholar Donald Kinder offered some "curmudgeonly advice" in 2007 to framing scholars, arguing that they should turn to the idea of narrative (a way to tell a story with a theme, setting, characters, and plot) to help overcome deficiencies in framing research. In our review, we find these same general issues Kinder identified within climate change framing scholarship as well. And while some within framing scholarship have moved in the direction of Kinder's advice, such as Nisbet who defines

frames as an "interpretive storyline" (2009, p.15), or those that operationalize narrative as a specific kind of frame (e.g., Berinksy & Kinder, 2006; Jones & Song, 2014), we argue that there is still room and need for framing research to integrate the concept of narrative. In this section of the chapter, we systemize Kinder's advice to apply to climate change framing research, as it relates to mitigation and adaptation studies.

In some form or another, each climate change framing study depicts a narrative—a narrative about people interacting with a past, present, or future world where they have played or will play a role, and that world is characterized by assertions (and queries) of cause and effect as well as other various factors the researcher deems important enough to include in the narrative. As our previous review of the literature indicates, these individual narratives can be quite different, but we argue that by organizing climate framing findings and models in terms of their specific narrative facets, climate researchers and communicators can start to develop understandings of larger climate narratives—and their relation to each other—by situating their own research within, as well as that of others.

Following along the lines of Jones and Peterson (2017), who engage in a similar activity, we leverage the NPF to assist us in this task. Readers of other chapters of this volume will already know that the NPF allows the scientific investigation of the role of narrative in public policy (Shanahan et al., 2018). Here we do not use it as such. Rather, we show an alternative use of the NPF's categories as a way of providing a narrative heuristic that can help organize climate change framing literature.

The NPF defines narrative as consisting of four distinct elements, which include settings, characters, plots, and morals (i.e., solution to the problem). For our purposes, we are also going to add the category of *framing structure*, which does not neatly fit within the NPF's narrative categories, although attempts have been made to do so (Crow and Lawlor, 2016; Shanahan et al., 2018).

For the NPF, the setting of a narrative is the context. Perhaps the best way to understand it is that the setting is similar to a play's stage, where relevant characteristics of the environment are available for character interaction. In the case of climate change, this can include geography, institutional configurations, facts (both contested and uncontested), a period in time, space, among other potential setting pieces. Regarding climate change frames, an element of the setting might be a specific country (e.g., McEvoy et al., 2013) or a localized setting (Spence & Pidgeon, 2010). The key point is that objects in the setting are external to the characters; thus, any of the findings or elements of a frame identified as external to individuals are positioned well to fit in the setting. Importantly, as with any narrative, not every possible object is included.

Characters are the agents within the narrative. Narratives about climate change tend to include victims that are harmed, villains either overtly or inadvertently responsible for the harm, and heroes that promise to protect victims. Importantly, characters need not be actual people. They can be anthropomorphized elements of the setting such as the environment or the economy. Climate change frames might refer to characters as interest groups, or as villains obstructing progress (Jones, 2014) or infer the person receiving the frame is a possible hero by calling them to action. A frame depicting a polar bear as a victim (Hart, 2011) is an example of character depictions within climate change framing research. Importantly, many of the internal characteristics mentioned in our discussion in the earlier section of this review (e.g., gender,

education, ideology, etc.) will be both attributes of the characters as well as attributes of the individuals exposed to the climate change narrative. In both cases, this will have meaningful impacts on how a narrative is received (Jones & Peterson, 2017).

The plot consists of the relationships of the characters to each other and the setting, usually distilled into a central theme. It can be as simple as attributing blame, such as establishing the deliberate or inadvertent harm of a villain (Crow & Berggren, 2014), or depicting the United States or China as the country responsible for climate change (Jang, 2013). It can also consist of multifaceted causal claims establishing interactions between elements of the setting (e.g., increased global temperatures), their cause(s) (e.g., anthropogenic), as well as character reactions to those causal assertions (e.g., rejection and acceptance coupled with action for or against). Examples of climate change framing plots identified in our review include attributing blame to greenhouse gas contributors (e.g., Jang, 2013), or establishing a moral authority to which actors are beholden (Howell et al., 2016).

The moral of the story is typically a solution to the identified problem or a call to action of some sort. Whether a frame is a mitigation or adaptation frame could be considered a very general moral of the story. But often, climate change mitigation and adaptation frames refer to specific solutions (Bilandzic et al., 2017; Gifford & Comeau, 2011; Morton et al., 2011) or calls to action (e.g., Semenza et al., 2011).

In the NPF, communication structure is accounted for by narrative structure. However, framing and narrative are not directly analogous (Crow & Lawlor, 2016; Shanahan et al., 2018). Consequently, we have added a fifth category to capture communication structures rooted specifically in framing theory, yet poorly fitted to the aforementioned narrative categories. For example, thematic vs. episodic frames (Hart, 2011) do not readily fit into the above categorization scheme.

It is our contention that most climate change framing research will speak to one or more of the above categories. Table 1 illustrates how this generally might apply.

Table 1. Examples of Narrative Aspects of Climate Change Framing Research

The Setting: The stage that a narrative plays out on, including specific geography, relevant facts, institutional configurations, and other dimensions specific to the context. For example, the impacts to a specific place or locale (e.g., Mir et al., 2016; Evans et al., 2014), concrete facts or potential benefits surrounding the issue (e.g., McCright et al., 2016) are all potential examples of a narrative setting.
Characters: Usually consists of victims who are harmed (or potentially so) such as the polar bear (Hart, 2011), a geographic place or locality (if anthropomorphized) (Singh et al., 2017; Spence & Pidgeon, 2010; Wiest et al., 2015), individuals (Hart & Nisbet, 2012; Severson & Coleman, 2015), villains who are responsible, such as greenhouse gas contributors (Jang, 2013), and a hero who brings promise of alleviating or reducing the harm (e.g., Jones, 2014),

which may often be bound up within the implicit or explicit calls for individuals to change behavior or support policies. Importantly, characteristics internal to individuals such as ideology (e.g., Levine & Klein, 2017;), education (e.g., Schuldt et al., 2011), and gender (e.g., Lockwood et al., 2011) will be both relevant in terms of how they are ascribed to characters in the narrative, as well as how they are distributed within those populations that are exposed to the narrative.

The Plot: Sets up the relationships between characters as well as between characters and their setting. Can include how audiences see themselves relating with climate change, through place attachment (Scannell & Gifford, 2013), projected future consequences (Bilandzic et al., 2017), or the potential outcomes, such as negative impacts on health (Petrovic et al., 2014; Semenza et al., 2014). Can also establish causality and blame (e.g., Jang, 2013) or an external moral authority to which actors are beholden (Howell et al., 2016). Many attribution frames noted in our review might usefully be categorized as plots.

The Moral of the Story: Relates to the point of a narrative. For example, a narrative might point to positive future outcomes and the avoidance of negative outcomes (Bilandzic et al., 2017; Gifford & Comeau, 2011; Morton et al., 2011), or a need for increased support for climate change mitigation and adaptation policies (specific or generally) and/or individual behavioral changes (e.g., Hart, 2011; Semenza et al., 2011).

The Communication Structure: These are aspects of climate change framing research and findings that do not readily fit into one of the above categories and likely speak to the structuring of the message itself. For example, the classic framing structure of episodic and thematic (Hart, 2011), resilience (McEvoy et al., 2013; Wong-Parodi, 2015), or equivalence frames (e.g., Bertolotti & Catellani, 2014; Hurlstone et al., 2014) might fall into this category.

NARRATIVE IMPLICATIONS FOR CLIMATE CHANGE FRAMING RESEARCH AND COMMUNICATION

Fitting existing or developing research to the NPF categories (Table 1) is a straightforward process that can be done in great detail, such as that when climate framing research specifically incorporates the concept of narrative into research designs (e.g., Jones, 2014; Jones & Song, 2014), or it can also be done quite simply by researchers speaking briefly to the narrative told by their research in terms of the above categories, even if only briefly in the discussion sections of articles. The benefits of either approach—simple or complex—to both

researchers and climate change communicators are likely manifold, especially in so much that it builds a communicative causeway between the two communities.

There is a substantial amount of scholarship across multiple academic disciplines that indicates that human beings use narrative as both their primary heuristic for cognitively organizing information and for communicating (Jones & McBeth, 2010). Therefore, it follows attempts to organize research and/or speak specifically to the narrative facets of research, in terms of models and findings, will offer two explicit and direct benefits. First, the current ad hoc practice of fitting different findings, aspects of models, and the like into research designs can be more easily understood by everyone in terms of the narratives they tell and then related to other research stories more easily via the NPF's categorizations. This fits scholarship to the predominant and preferred way people understand the world and allows for ongoing integration of climate change framing research into a loose overarching narrative framework configuration that helps us to better understand the relationships across studies and the concepts within them. Second, findings can be fitted to scientific understandings of narrative communication (Crow & Jones, 2018; Jones & Crow, 2018), helping ensure more effective climate change communication of complex scientific information to the lay public.

As Nisbet and Mooney (2007) suggest in their cornerstone piece on framing as a method for scientific communication, if scientific fact was the only tool needed to convince the public of the gravity of climate change, climate change policies would be less controversial and more widely supported. Simultaneously, low levels of scientific illiteracy allow the media to exploit this misunderstanding and frame climate change as a contentious and debatable issue, despite the apparent facts (Boykoff, 2007). However, the climate change framing literature demonstrates that a variety of individual internal determinants (e.g., ideology and partisanship) are stronger influencers on a person's actions and ideas than scientific facts, and the way information is framed can have highly variable effects. Therefore, the literature on climate change framing communication as a whole tells us that attempting to change a person's opinion through facts or by completely altering their entrenched beliefs is a hopeless endeavor but focusing instead on communicating the facts within a frame the person understands and agrees with is likely to be more successful (Lakoff, 2010). As Jones and Peterson (2017) demonstrate, using a narrative about climate change that relates to a person's worldview can increase understanding of policy decisions and the need for climate change policies. Here we augment that case by helping to build a bridge between research and communication, hopefully helping researchers contribute more directly, and meaningfully, to this now existential endeavor.

References

Ahchong, K., & Dodds, R. (2012). Anthropogenic climate change coverage in two Canadian newspapers, the Toronto Star and the Globe and Mail, from 1988 to 2007. *Environmental Science & Policy*, *15*(1), 48-59.

Akerlof, K., Maibach, E.W., Fitzgerald, D., Cedeno, A.Y., and Neuman, A. (2013). Do people "personally experience" global warming, and if so how, and does it matter? *Global Environmental Change*, 23: 81-91.

Azmi, N. J., Omar, N. A. M., Zaid, S. B. M., Wahab, Z., & Yusof, A. (2015). Media portrayal on global climate change: An analysis of Malaysian mainstream newspapers. *Studies in Media and Communication*, *3*(1), 73-78.

Altinay, Z. (2017). Visual communication of climate change: Local framing and place attachment. *Coastal Management*, *45*(4), 293-309.

Bain, P. G., Hornsey, M. J., Bongiorno, R., & Jeffries, C. (2012). Promoting pro-environmental action in climate change deniers. *Nature Climate Change*, *2*(8), 600.

Baumer, E. P., Polletta, F., Pierski, N., & Gay, G. K. (2017). A simple intervention to reduce framing effects in perceptions of global climate change. *Environmental Communication*, *11*(3), 289-310.

Benjamin, D., Por, H., and Budescu, D. (2017). Climate Change Versus Global Warming: Who is Susceptible to the Framing of Climate Change? *Environment and Behavior*, 49(7): 745-770.

Berinsky, A. J., & Kinder, D. R. (2006). Making sense of issues through media frames: Understanding the Kosovo crisis. *The Journal of Politics*, *68*(3), 640-656.

Bertolotti, M. and Catellani, P. (2014). Effects of message framing in policy communication on climate change. *European Journal of Social Psychology*, 44(5): 474-486.

Bilandzic, H., Kalch, A., and Soentgen, J. (2017). Effects of Goal Framing and Emotions on Perceived Threat and Willingness to Sacrifice for Climate Change. Science Communication, 39(4): 466-491.

Bosomworth, K. (2015). Climate change adaptation in public policy: Frames, fire management and frame reflection. *Environment and Planning C: Government and Policy*, 33: 1450-1466.

Boykoff, M. T. (2007). From convergence to contention: United States mass media representations of anthropogenic climate change science. *Transactions of the Institute of British Geographers*, *32*(4), 477-489.

Boykoff, M. T., and Boykoff, J. M. (2007). Climate change and journalistic norms: A case-study of US mass-media coverage. *Geoforum*, *38*(6), 1190-1204.

Boykoff, M.T., and Roberts, J.T. (2007). Media Coverage of Climate Change: Current Trends, Strengths, Weaknesses. United National Development Programme-Human Development Report 2007, http://hdr.undp.org/en/content/media-coverage-climate-change.

Bushell, S., Workman, M., and Colley, T. (2016). Towards a unifying narrative for climate change. Grantham Institute Briefing Paper No 18, April 2016. Imperial College London.

Cacciatore, M. A., Scheufele, D. A., & Iyengar, S. (2016). The end of framing as we know it… and the future of media effects. *Mass Communication and Society*, *19*(1), 7-23.

Carrico, A.R., Truelove, H.B., Vandenbergh, M.P. and Dana, D. (2015). Does learning about climate change adaptation change support for mitigation? *Journal of Environmental Psychology*, 41: 19-29.

Chong, D. and Druckman, J.N. (2007). Framing Theory. *Annual Review Political Science*, 10: 103-126.

Christie, I. (2010). How to confuse friends and alienate people: mixed messages and climate change communication in UK politics. In Rowley, S. and Phillips, R. (Eds) From hot air to happy endings: How to inspire public support for a low carbon society, 16-21. London, UK: Green Alliance.

Crow, D., & Jones, M. (2018). Narratives as tools for influencing policy change. *Policy & Politics*, *46*(2), 217-234.

Crow, Deserai A., and Andrea Lawlor. "Media in the policy process: using framing and narratives to understand policy influences." *Review of Policy Research* 33, no. 5 (2016): 472-491.

Devine-Wright, P., Price, J. and Leviston, Z. (2015). My country or my planet? Exploring the influence of multiple place attachments and ideological beliefs upon climate change attitudes and opinions. *Global Environmental Change*, 30: 68-79.

Dewulf, A. (2013). Contrasting frames in policy debates on climate change adaptation. *WIREs Climate Change,* 4: 321-330.

Dickinson, J.L., Crain, R., Yalowitz, S., and Cherry, T.M. (2013). How framing climate change influences citizen scientists' intentions to do something about it. *The Journal of Environmental Education*, 44(3): 145-158.

De Vreese, C.H., Peter, J., Semetko, H.A. (2001). Framing politics at the launch of the Euro: A cross-national comparative study of frames in the news. *Political communication*, *18*(2), 107-122.

Dewulf, A. (2013). Contrasting frames in policy debates on climate change adaptation. *Wiley Interdisciplinary Reviews: Climate Change*, *4*(4), 321-330.

Evans, L., Milfont, T.L., and Lawrence, J. (2014). Considering local adaptation increases willingness to mitigate. *Global Environmental Change*, 25: 69-75.

Feinberg, M., and Miller, R. (2011). Apocalypse Soon? Dire Messages Reduce Belief in Global Warming by Contradicting Just-World Beliefs. *Psychological Science*, 1: 34-38.

Ford, J. D., & King, D. (2015). Coverage and framing of climate change adaptation in the media: A review of influential North American newspapers during 1993–2013. *Environmental Science & Policy*, *48*, 137-146.

Gifford, R. and Comeau, L.A. (2011). Message framing influences perceived climate change competence, engagement, and behavioral intentions. *Global Environmental Change*, 21(4): 1301-1307.

Goffman, E. (1974). *Frame Analysis: An Essay on the Organization of Experience*. New York: Harper & Row.

Hardisty, D.J., Johnson, E.J., and Weber, E.U. (2010). A Dirty Word or a Dirty World? Attribute Framing, Political Affiliation, and Query Theory. *Psychological Science*, 12(1): 86-92.

Harris, P.G. (2007). Collective Action on Climate Change: The Logic of Regime Failure. *Natural Resource Journal*, 47(1): 195-224.

Hart, P.S. and Nisbet, E.C. (2012). Boomerang Effects in Science Communication: How Motivated Reasoning and Identity Cues Amplify Opinion Polarization About Climate Mitigation Policies. *Communication Research*, 39(6): 701-723.

Hart, P.S. (2011). One or many? The influence of episodic and thematic climate change frames on policy preferences and individual behavior change. *Science Communication*, 33(1): 28-51.

Holling, C. S. (1973). Resilience and stability of ecological systems. *Annual review of ecology and systematics*, *4*(1), 1-23.

Howe, P.D. and Leiserowitz, A. (2013). Who remembers a hot summer or a cold winter? The asymmetric effect of beliefs about global warming on perceptions of local climatic conditions in the U.S. *Global Environmental Change*, 23: 1488-1500.

Howell, R.A., Capstick, S., and Whitmarsh, L. (2016). Impacts of adaptation and responsibility framings on attitudes towards climate change mitigation. *Climatic Change*, 136(3-4): 445-461.

Hurlstone, M.J., Lewandowsky, S., Newell, B.R., and Sewell, B. (2014). The effect of framing and normative messages in building support for climate policies. *PloS One*, 9(12): e114335.

Intergovernmental Panel on Climate Change. (2015). *Climate change 2014: Mitigation of climate change* (Vol. 3). Cambridge University Press.

IPCC. (2018) Summary for Policymakers. In: Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways,in the context of strengthening the global response to the threat of climate change, sustainable development,and efforts to eradicate poverty V. Masson-Delmotte, P. Zhai, H. O. Pörtner, D. Roberts, J. Skea, P. R. Shukla, A. Pirani, W. Moufouma-Okia, C. Péan, R. Pidcock, S. Connors, J. B. R. Matthews, Y. Chen, X. Zhou, M. I. Gomis, E. Lonnoy, T. Maycock, M. Tignor, T. Waterfield (eds.), World Meteorological Organization, Geneva, Switzerland, 32 pp.

Iyengar, S. (1994). *Is anyone responsible?: How television frames political issues*. University of Chicago Press.

Jang, S.M. (2013). Framing responsibility in climate change discourse: Ethnocentric attribution bias, perceived causes, and policy attributes. *Journal of Environmental Psychology*, 36: 27-36.

Jones, M. D. (2014). Cultural characters and climate change: How heroes shape our perception of climate science. *Social Science Quarterly*, *95*(1), 1-39.

Jones, M., & Crow, D. (2017). How can we use the 'science of stories' to produce persuasive scientific stories?. *Palgrave Communications*, *3*(1), 53.

Jones, M. D., & McBeth, M. K. (2010). A narrative policy framework: Clear enough to be wrong?. *Policy Studies Journal*, *38*(2), 329-353.

Jones, M. D., & Peterson, H. (2017). Narrative persuasion and storytelling as climate communication strategies. In *Oxford Research Encyclopedia of Climate Science*.

Jones, M. D., & Song, G. (2014). Making sense of climate change: How story frames shape cognition. *Political Psychology*, *35*(4), 447-476.

Kahneman, D. and Tversky, A. (1979). Prospect Theory: An Analysis of Decision under Risk. *Econometrica*, 47(2): 263.

Kellstedt, P. M., Zahran, S., & Vedlitz, A. (2008). Personal efficacy, the information environment, and attitudes toward global warming and climate change in the United States. *Risk Analysis: An International Journal*, *28*(1), 113-126.

Kinder, D. R. (2007). Curmudgeonly advice. *Journal of Communication*, *57*(1), 155-162.

Lakoff, G. (2010). Why it Matters How We Frame the Environment. *Environmental Communication*, 4(1): 70-81.

Levine, A.S. and Kline, R. (2017). A new approach for evaluating climate change communication. *Climatic Change*, 142(1-2): 301-309.

Lockwood, M. (2011). Does the framing of climate policies make a difference to public support? Evidence from UK marginal constituencies. *Climate Policy*, *11*(4), 1097-1112.

Lu, H., and Schuldt, J.P. (2016). Compassion for climate change victims and support for mitigation policy. *Journal of Environmental Psychology*, 45: 192-200.

Maibach, E.W., Nisbet, M., Baldwin, P., Akerlof, K., and Diao, G. (2010). Reframing climate change as a public health issue: an exploratory study of public reactions. BMC Public Health, 10(1): 299.

Maibach, E. W., Roser-Renouf, C., & Leiserowitz, A. (2008). Communication and marketing as climate change–intervention assets: A public health perspective. *American journal of preventive medicine*, *35*(5), 488-500.

Marquart-Pyatt, S. T., Shwom, R. L., Dietz, T., Dunlap, R. E., Kaplowitz, S. A., McCright, A. M., & Zahran, S. (2011). Understanding public opinion on climate change: a call for research. *Environment: Science and Policy for Sustainable Development*, *53*(4), 38-42.

McCright, A.M., Charters, M., Dentzman, K., and Dietz, T. (2016). Examining the Effectiveness of Climate Change Frames in the Face of a Climatic Change Denial Counter-Frame. Topics in Cognitive Science, 8(1): 76-97.

McCright, A.M. and Dunlap, R.E. (2000). Challenging Global Warming as a Social Problem: An Analysis of the Conservative Movement's Counter-Claims. *Social Problems*, 47(4): 499-522.

McEvoy, D., Fünfgeld, H., and Bosomworth, K. (2013). Resilience and climate change adaptation: the importance of framing. *Planning Practice & Research*, 28(3): 280-293.

Mir, H.M., Behrang, K., Isaai, M.T., and Nejat, P. (2016). The impact of outcome framing and psychological distance of air pollution consequences on transportation mode choice. *Transportation Research Part D*, 46: 328-338.

Morton, T.A., Rabinovich, A., Marshall, D., and Bretschneider, P. (2011). The future that may (or may not) come: How framing changes responses to uncertainty in climate change communications. Global Environmental Change, 21(1): 103-109.

Moser, S. and Dilling, L. (2007). Communicating Climate Change: Closing the Science-Action Gap. T*he Oxford Handbook of Climate Change and Society*. England: Oxford University Press.

Myers, T.A., Nisbet, M.C., Maibach, E.W. and Leiserowitz, A.A. (2012). A public health frame arouses hopeful emotions about climate change. *Climatic Change*, 113(3-4): 1105-1112.

Nisbet, E.C., Hart, P.S., Myers, T., and Ellithorpe, M. (2013). Attitude change in competitive framing environments? Open-/closed-mindedness, framing effects, and climate change. *Journal of Communication*, 63(4): 766-785.

Nisbet, M.C. (2009). Communicating Climate Change: Why Frames Matter for Public Engagement. *Environment: Science and Policy for Sustainable Development*, 51(2): 12-23.

Nisbet, M.C. and Mooney, C. (2007). Framing Science. *Science*, 316: 56.

Olausson, U. (2009). Global warming-global responsibility? Media frames of collective action and scientific certainty. *Public Understanding of Science*, 18: 421-436.

O'Neill, S.J. (2013). Image Matters: Climate change imagery in the US, UK and Australian Newspapers. *Geoforum*, 49: 10-19.

O'Neill, S.J. and Hulme, M. (2009). An iconic approach for representing climate change. *Global Environmental Change*, 19: 402-410.

O'Neill, S.J. and Nicolson-Cole, S. (2009). "Fear Won't Do It" Promoting Positive Engagement with Climate Change Through Visual and Iconic Representations. *Science Communication,* 30(3): 355-379.

Parag, Y., Captick, S., Poortinga, W., (2011). Policy Attribute Framing: A Comparison Between Three Policy Instruments For Personal Emissions Reductions. J*ournal of Policy Analysis and Management,* 30(4): 889-905.

Petrovic, N. Madrigano, J., and Zaval, L. (2014). Motivating mitigation: when health matters more than climate change. *Climate Change*, 126(1-2): 245-254.

Sapiains, R., Beeton, R. J., & Walker, I. A. (2016). Individual responses to climate change: Framing effects on pro-environmental behaviors. *Journal of Applied Social Psychology*, *46*(8), 483-493.

Scannell, L., and Gifford, R. (2013). Personally relevant climate change: The role of place attachment and local versus global message framing in engagement. *Environment and Behavior*, 45(1): 60-85.

Schmidt, A., Ivanova, A., & Schäfer, M. S. (2013). Media attention for climate change around the world: A comparative analysis of newspaper coverage in 27 countries. *Global Environmental Change*, *23*(5), 1233-1248.

Schuldt, J. P., Konrath, S. H., & Schwarz, N. (2011). "Global warming" or "climate change"? Whether the planet is warming depends on question wording. *Public Opinion Quarterly*, *75*(1), 115-124.

Semenza, J.C., Ploubidis, G.B., and George, L.A. (2011). Climate change and climate variability: personal motivation for adaptation and mitigation. *Environmental Health*, 10(46): 1-12.

Severson, A.W. and Coleman, E.A. (2015). Moral Frames and Climate Change Policy Attitudes. *Social Science Quarterly*, 96(5): 1277-1290.

Shanahan, Elizabeth A., Eric D. Raile, Kate A. French, and Jamie McEvoy. "Bounded Stories." *Policy Studies Journal* 46, no. 4 (2018): 922-948.

Shehata, A. and Hopmann, D.N. (2012). Framing Climate Change: A study of US and Swedish press coverage of global warming. *Journalism Studies*, 13(2): 175-192.

Singh, A.S., Zwickle, A., Bruskotter, J.T., and Wilson, R. (2017). The perceived psychological distance of climate change impacts and its influence on support for adaptation policy. *Environmental Science & Policy*, 73: 93-99.

Spence, A. and Pidgeon, N. (2010). Framing and communicating climate change: The effects of distance and outcome frame manipulations. Global Environmental Change, 20(4): 656-667.

Takahashi, B., & Meisner, M. (2013). Climate change in Peruvian newspapers: The role of foreign voices in a context of vulnerability. *Public Understanding of Science*, *22*(4), 427-442.

Ung, M., Luginaah, I., Chuenpagdee, R., and Campbell, G. (2015). Perceived Self-Efficacy and Adaptation to Climate Change in Coastal Cambodia. *Climate*, 4(1): 1-16.

U.S. Global Change Research Program. (2017). *Climate Science Special Report: Fourth National Climate Assessment, Volume I*. Washington, DC, USA.

Weaver, C. P., Moss, R. H., Ebi, K. L., Gleick, P. H., Stern, P. C., Tebaldi, C., ... & Arvai, J. L. (2017). Reframing climate change assessments around risk: recommendations for the US National Climate Assessment. *Environmental Research Letters*, *12*(8), 080201.

Weiner, B. (1985). An Attributional Theory of Achievement Motivation and Emotion. *Psychological Review*, 92(4), 548-573.

Wiest, S.L., Raymond, L., and Clawson, R.A. (2015). Framing, partisan predispositions, and public opinion on climate change. *Global Environmental Change*, 31:187-198.

Wong-Parodi, G., Fischhoff, B., and Stauss, B. (2015). Resilience vs. Adaptation: Framing and Action. *Climate Risk Management*, 10:1-7.

World Bank Group. (2016). *Global Monitoring Report 2015/2016: Development Goals in an Era of Demographic Change.* Washington, DC: World Bank. DOI: 10.1596/978-1-4648-0669-8.

CHAPTER 10 : INNOVATIONS AND FUTURE DIRECTIONS FOR THE NARRATIVE POLICY FRAMEWORK

Elizabeth A. Shanahan, Montana State University
Mark K. McBeth, Idaho State University
Michael D. Jones*, University of Tennessee

*Corresponding author: shanahan@montana.edu

To cite chapter: Jones, Michael D., Mark K. McBeth, and Elizabeth A. Shanahan. 2022. "Innovations and Future Directions for the Narrative Policy Framework", in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.), Montana State University Library, 243-249. DOI: 10.15788/npf10

The NPF started as an iterative scientific journey exploring whether narratives play a role in the policy process (McBeth, Shanahan, and Jones, 2005; McBeth et al., 2007). Because we were prepared to be wrong—even warned and such—we never would have predicted what the next fifteen years would yield. Yet, two things happened. First, our results held over time, indicating that narratives could be systematically and thus reliably studied as a critical mechanism of policy change. Second, scholarly interest in the NPF exploded. Thus, with the NPF's seminal naming (Jones and McBeth, 2010), subsequent articles (e.g., Shanahan, Jones, and McBeth, 2011), and the first edited volume (Jones, Shanahan and McBeth, 2014), we set out to create a comprehensive framework for the study of narratives in the policy process.

While the NPF began with the three of us, we had always intended to create a welcoming and intellectually energized research environment where others would not only join us in studying narrative, but also shape and advance the NPF as a framework that sheds light on the complexities inherent in the policy process. Indeed, we have grown into a diverse, international community of NPF scholars. As of the end of 2022, a Google Scholar search for "Narrative Policy Framework reveals over 2300 articles from across the globe, including Europe (Esposito et al., 2021; Goldberg-Miller and Skaggs, 2021; Kuenzler, 2021; Kuhlmann and Blum, 2021; Rychlik, Hornung, and Bandelow, 2021; Valero, 2021), Russia (Schlaufer, Gafurova, et al., 2021; Schlaufer, Khaynatskaya, et al., 2021; Uldanov et al., 2021), India (Hud,a 2018), and Indonesia (Habibie et al., 2021), among other locations. The diverse and international NPF community is the heart and soul of the NPF research program. In honor of our expansive community, we chose to publish this edited NPF book as an open access book to ensure a quicker and more equitable dissemination of this collection of NPF research. This book is a launching pad for directed NPF

research, and this chapter aims to highlight some of the new possibilities that emerge from the contents within.

This second volume of the *Science of Stories* is a collection of some of the very best contemporary NPF research, developed and implemented by our growing NPF community. This volume showcases both the kinds of insights that can be discovered when applying the NPF, as well as illuminates the protean nature of the framework. In this chapter, we discuss the chapters by examining (*i*) new applications of traditional NPF concepts, (*ii*) the introduction of new NPF concepts, (*iii*) new methods for text analysis in the NPF context, and (*iv*) new applications for the NPF. We conclude with future directions for NPF researchers based on the findings and lessons bound within this edited volume.

NEW APPLICATIONS OF TRADITIONAL NPF CONCEPTS

As described in the Introduction of this volume, narrative components are comprised of both narrative form and narrative content. The structure or form of a narrative is populated by narrative elements such as characters and plot. Narrative elements are the bread and butter of NPF scholarship, with characters being most reliably and consistently used in NPF studies. Narrative content are belief systems that anchor policy narratives as well as strategies used to assemble the narrative elements that, for example, create causal mechanisms and array the scope of conflict. In this volume, authors have advanced the science of the NPF by using traditional NPF concepts in new combinations, thereby unpacking the more complex dynamic workings of policy narratives in the policy process.

Wolton, Crow, and Heikkila (Chapter 3) innovate by investigating the relationship between narrative elements. NPF scholars have spent years validating NPF concepts in isolation, and Wolton et al., move the NPF forward by looking at the more complex structure of policy narratives through the connection of character arrays to policy solutions. Similarly, for years there has been interest in how narratives play into coalitional behavior (McBeth, Shanahan, and Jones, 2005; Shanahan, Jones, and McBeth, 2011; Kusko, 2013). Gupta et al., (Chapter 2) advances this line of inquiry by using discourse network analysis on policy actors' use of characters in tweets to empirically discover coalitions and systematically characterize and compare narrative structures through examining networks of narrative elements to identify narrative themes and cleavages within a coalition. In sum, because narrative form is often composed of multiple categories of narrative elements (characters, plots, settings, solutions), examining the interaction or relationship among and between narrative elements in the construction of policy narratives will continue to contribute to the use of NPF in understanding policy processes and policy change.

INTRODUCTION OF NEW NPF CONCEPTS

The NPF is a framework continually shaped by the findings of the NPF community. As such, new ideas arise in our NPF community that are proffered for empirical testing. In this volume, two author teams posit new narrative components for the NPF. Smith-Walters, Fritz, and O'Doherty (Chapter 7) discovered a new narrative strategy, named the solidarity shift, that captures the prevalence of victims. The angel and devil shifts focus on the use of heroes and villains; the authors' work adds a new and missing narrative strategy. Additionally, the results of

Lybecker, McBeth, and Sargent's experimental study (Chapter 4) moved the authors to advocate for narrator as a critical narrative element that the NPF should include, alongside characters, setting, plot, and moral. The NPF has historically acknowledged the narrator as important, but these authors elevate this concept as an empirical one in testing for narrative persuasion.

Colville and Merry (Chapter 6) also introduce a new idea for the NPF, that of individual citizens as producers of their own narratives surrounding policy issues, adding a new perspective to micro-level work that tends to focus on individuals as the consumer of policy narratives. While Peterson (2018) introduced narrative attention as a new concept for an outcome variable for the NPF, she and her research team (Chapter 5) continue to explore this innovative idea that adds a new narrative pathway of influence for the policy process, alongside the more traditional examinations of persuasion. In sum, we are very excited and encouraged by these new NPF concepts. We hope NPF scholars will examine the operationalization of these new ideas and re-test them across varying policy contexts to establish concept validity and reliability.

STEPS TOWARD "BIG NARRATIVE DATA" ANALYSES

The increasing volume of narrative data (e.g., Twitter) has inspired a small but burgeoning group of NPF researchers to turn to automated coding schemes. Wolton et al., (Chapter 3) auto-coded over 5,700 media articles for narrative characters and policy solutions, by frame, to demonstrate the relationship between narrative elements and frames. Importantly, these authors were mindful of ensuring that NPF theory guided coding development and the automated coding of text, as opposed to the tool of computational analysis techniques driving the questions. We expect these types of 'big' data methods will become more frequent as the next generation of NPF scholars bring their technical expertise to bear on NPF research questions.

NEW APPLICATIONS FOR THE NPF

In our previous edited NPF book (Jones, Shanahan, and McBeth, 2014), we first tackled the normative and ethical implications of studying narrative. We argued that the benefits of educating individuals about narrative outweighed the potential costs of other individuals or groups using the knowledge about narrative to engage in manipulation. Since the publication of that book, narrative has only grown in importance as the world has become more and more polarized to a point where some are questioning whether liberal democracy can survive the challenges of authoritarianism, nationalism, and populism. Addressing the normative implications of the NPF, Jones and McBeth (2020) argue that the NPF can play an important role in preserving democracy and democratic institutions. Jones and McBeth (2020, 14) write:

> In making our case two not so radical normative premises serve as a foundation for the arguments presented in this article. First, we preference science and evidence over falsehoods. Second, democratic institutions and norms matter. Consequently, relativity is a problem for both science and democracy and we believe the NPF can help researchers do something about that. From these two premises we further argue that the NPF can be leveraged to diagnose the problem and perhaps even provide prescriptions for the relativism threat to our scientific and democratic institutions (2020, 14).

Indeed, Baldoli and Radaelli (Chapter 8) embrace a normative application of the NPF in constructing counter-narratives to the populist account of European integration. The authors focus on using narrative elements to build a nonviolent narrative alternative and engage in a lengthy discussion of constructive and destructive applications of the NPF. We expect--and hope--that others will continue to explore the normative implication of the NPF. In doing so, we ask researchers to continue to grapple with the ethical considerations inherent with such endeavors.

Wolters, Jones, and Duvall (Chapter 9) use the NPF as a way to organize and understand the noisy and vast climate change framing literature. Challenging the more classic, thematic approach to literature reviews as having the potential to portray an inaccurate picture of meanings and findings, the authors suggest the NPF as a way to systematically integrate findings over time to find a more holistic understanding of the climate change framing literature. Similar to examining public consumption documents in a policy debate, the authors suggest examining literature by narrative elements-- setting, characters, plots, and moral.

CLOSING THOUGHTS

This book was mainly written during a global pandemic. Chapter authors and editors conducted their research, wrote their chapters, met deadlines and did revisions while sheltering in place, taking care of children at home, worrying about their own and their family's health, and often wondering what the future would hold for all of us. The book was ultimately delayed by the pandemic, but we believe that the NPF studies included in this book represent cutting edge research into narratives and their role in the policy process. We thank our authors for their patience and their contributions and look forward to seeing how this edited book influences the continued development of the Narrative Policy Framework.

Authors in this volume have opened doors for future NPF research, from more complex analyses that better reflect narrative and policy complexities to the introduction of new concepts to the use of advanced methods to some normative applications. We hope that you are inspired by their work and apply some of these ideas to what captures your imagination. The policy topics in this volume were varied—nuclear energy, hydraulic fracturing, climate change, COVID-19, Medicare, sanctuary cities, and European integration—but hardly exhaustive. We hope to see a continued expansion of policy issues in NPF scholarship, from varying governance regimes to different policy domains (e.g., health). This volume also represents the varied sources of narrative data—media, tweets, testimonials, etc. As information sources and venues change, we expect new narrative data to emerge for researchers, such as visual communications. Finally, we hope that by providing a text that is open access that the ideas and work in this volume can reach researchers, students, and practitioners who experience barriers to current literature. Our aim is to make the NPF accessible broadly and advance our understanding of the role of narratives in policy processes around the world.

REFERENCES

Baldoli, Roberto and Claudio M. Radaelli. 2022. "A Nonviolent Narrative for European Integration?" in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.). Montana State University Library. 197-221. DOI: doi.org/10.15788/npf8

Colville, Kathleen and Melissa K. Merry. 2022. "Speaking from Experience: Medicaid Consumers as Policy Storytellers" *Narratives and the Policy Process: Applications of the Narrative Policy Framework*. Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.). Montana State University Library. 138-165. DOI: doi.org/10.15788/npf6

Esposito, Giovanni, Jessica Clement, Luca Mora, and Nathalie Crutzen. 2021. "One Size Does Not Fit All: Framing Smart City Policy Narratives within Regional Socio-Economic Contexts in Brussels and Wallonia." *Cities* 118: 14.

Goldberg-Miller, Shoshanah B.D., and Rachel Skaggs. 2021. "The Story and the Data: Using the Narrative Policy Framework to Analyze Creative Economy Reports." *Artivate: A Journal of Entrepreneurship in the Arts* 10(2): 22.

Gupta, Kuhika, Joseph Ripberger, Andrew Fox, Hank Jenkins-Smith, and Carol Silva. 2022. "Discourse Network Analysis of Nuclear Narratives" Chapter 2 in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*. Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.). Montana State University Library. 13-39. DOI: doi.org/10.15788/npf2

Habibie, Dedi Kusuma et al. 2021. "Narrative Policy Framework: The Role of Media Narratives on Alcohol Investment Policy in Indonesia." *Jurnal Moral Kemasyarakatan* 6(2): 64–76.

Huda, Juhi. 2018. "An Examination of Policy Narratives in Agricultural Biotechnology in India." *World Affairs* 181(1): 42–68.

Jones, Michael D., Aaron Walter-Smith, Mark K. McBeth, and Elizabeth A. Shanahan. 2022. "Narrative Policy Framework." In *Theories of the Policy Process* Chris M. Weible (ed.). Routledge Publishing, Chapter 5.

Jones, Michael D., and Mark K. McBeth. 2010. "A Narrative Policy Framework: Clear Enough to Be Wrong?" *Policy Studies Journal* 38(2): 329–53.

———. 2020. "Narrative in the Time of Trump: Is the Narrative Policy Framework Good Enough to Be Relevant?" *Administrative Theory & Praxis* 42(2): 91–110.

Jones, Michael D., Elizabeth A. Shanahan, and Mark K. McBeth, eds. 2014. *The Science of Stories: Applications of Narrative Policy Framework*. New York, New York: Palgrave Macmillan.

Kuenzler, Johanna. 2021. "From Zero to Villain: Applying Narrative Analysis in Research on Organizational Reputation." *European Policy Analysis* 7(S2): 405–24.

Kuhlmann, Johanna, and Sonja Blum. 2021. "Narrative Plots for Regulatory, Distributive, and Redistributive Policies." *European Policy Analysis* 7(S2): 276–302.

Kusko, Elizabeth. 2013. "Policy Narratives, Religious Politics, and the Salvadoran Civil War: The Implications of Narrative Framing on U.S. Foreign Policy in Central America." PhD Dissertation. Idaho State University

Lybecker, Donna L., Mark K. McBeth, and Jessica M. Sargent. 2022. "Agreement and Trust: In Narratives or Narrators?" in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*. Edited by Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.). Montana State University Library. 91-115. DOI: doi.org/10.15788/npf4

McBeth, Mark K., Elizabeth A. Shanahan, Ruth J. Arnell, and Paul L. Hathaway. 2007. "The Intersection of Narrative Policy Analysis and Policy Change Theory." *Policy Studies Journal* 35(1): 87–108.

McBeth, Mark K., Elizabeth A. Shanahan, and Michael D. Jones. 2005. "The Science of Storytelling: Measuring Policy Beliefs in Greater Yellowstone." *Society and Natural Resources* 18(May/June): 413–29.

Peterson, Holly L. 2018. "Political information has bright colors: Narrative Attention Theory." *Policy Studies Journal* 46(4): 828-842.

Peterson, Holly L., Chad Zanocco, and Aaron Smith-Walter. 2022. "Lost in Translation: Narrative Salience of Fear > Hope in Prevention of COVID-19″ in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*. Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.). Montana State University Library.116-137. DOI: doi.org/10.15788/npf5

Rychlik, Jasmin, Johanna Hornung, and Nils C. Bandelow. 2021. "Come Together, Right Now: Storylines and Social Identities in Coalition Building in a Local Policy Subsystem." *Politics & Policy* 49(5): 1216–47.

Schlaufer, Caroline, Dilyara Gafurova, et al. 2021. "Narrative Strategies in a Nondemocratic Setting: Moscow's Urban Policy Debates." *Policy Studies Journal*. First published, August 3. https://doi.org/10.1111/psj.12445,

Schlaufer, Caroline, Tatiana Khaynatskaya, et al. 2021. "Problem Complexity and Narratives in Moscow's Waste Controversy." *European Policy Analysis* 7(S2): 303–23.

Shanahan, Elizabeth A., Michael D. Jones, and Mark K. McBeth. 2011. "Policy Narratives and Policy Processes." *Policy Studies Journal* 39(3): 535-561. https://doi.org/10.1111/j.1541-0072.2011.00420.x

Smith-Walter, Emily Fritz, and Shannon O'Doherty. 2022. "Sanctuary Cities, Focusing Events, and the Solidarity Shift: a Standard Measurement of the Prevalence of Victims for the Narrative Policy Framework" in *Narratives and the Policy Process: Applications of the*

Narrative Policy Framework, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.). Montana State University Library.166-196. DOI: doi.org/10.15788/npf7

Uldanov, Artem, Tatiana Gabriichuk, Dmitry Karateev, and Maria Makhmutova. 2021. "Narratives in an Authoritarian Environment: Narrative Strategies, Plots, and Characters in Moscow's Public Transport Reforms Debate." *European Policy Analysis* 4: 433–50.

Valero, Diana E. 2021. "From Brexit to VOX: Populist Policy Narratives about Rurality in Europe and the Populist Challenges for the Rural-Urban Divide." *Rural Sociology* 0(0): 1–26.

Wolters, Erika Allen, Michael D. Jones, and Kathryn Duvall. 2022. "A Narrative Policy Framework Solution to Understanding Climate Change Framing Research" in *Narratives and the Policy Process: Applications of the Narrative Policy Framework*, Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.). Montana State University Library. 222-242. DOI: doi.org/10.15788/npf9

Wolton, Laura P. and Deserai A. Crow, and Tanya Heikkila. 2022. "Stepping Forward: Towards a More Systematic NPF with Automation." in *Narratives and the Policy Process: Applications of the Narrative Policy Framework.* Michael D. Jones, Mark K. McBeth, and Elizabeth A. Shanahan (eds.). Montana State University Library. 40-90. DOI: doi.org/10.15788/npf3.