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Bounded Stories

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Narrative Policy Framework (NPF) and framing scholars share an interest in how the construction of policy arguments influences opinions and policy decisions. However, conceptual clarification is needed. This study advances the NPF by clarifying the meaning and function of frames and narrative, as well as their respective roles in creating policy realities. We explore sociological and psychological roots of framing scholarship and map these onto NPF's science of narratives philosophy, suggesting that narratives can reveal internally held cognitive schemas. We focus on issue categorization frames as boundaries for narrative construction. Within these bounds, narrative settings further focalize the audience by specifying where action toward a solution takes place. Based on 26 interviews with floodplain decision makers in Montana, we capture internally held cognitions through the assemblage of issue categorization frames and narrative elements. We find that settings can traverse issue categorization frames and policy solutions, with actions of characters that unfold within the setting being key. Similarly, we find that a single issue categorization frame can contain multiple different narratives and that individuals may simultaneously hold multiple different narratives internally. Overall, this study contributes to policy process research through establishment of connections among narratives, issue categorization frames, and cognitive schemas.

KEY WORDS: Narrative Policy Framework, frames, framing, flooding, risk, natural disaster, Yellowstone

叙事政策框架（NPF）和框架学者都对政策论点的构建如何影响意见和政策决策感兴趣。但是，我们需要进行一些概念上的澄清。本研究通过阐明框架和叙事的含义、功能以及它们在创造政策现实中各自的作用来推进NPF的研究。我们探讨框架研究的社会学和心理学根源，并将这些纳入NPF科学的叙事哲学。我们借此表明，叙事可以揭示内部持有的认知模式。我们专注于问题分类框架作为叙事建构的界限。在这些范围内，叙事情境通过指定解决方案的行动方式，进一步聚焦了受众。根据对蒙大拿州洪泛区决策者的26个访谈，我们通过问题分类框架和叙事元素的组合捕捉到了其内部认知。我们发现情境可以横贯问题分类框架和政策解决方案，其中在情境中揭示出的人物行为是关键。同时，我们发现单个问题分类框架可以包含多个不同的叙事，并且个体可以在内部同时持有多个不同的叙事。总体而言，本研究通过建立叙事、问题分类框架和认知模式之间的联系，为政策过程研究做出了贡献。

Narrative Policy Framework (NPF) scholars and framing scholars share an interest in how policy argument construction influences public opinion and policy decisions. The NPF posits that policy narratives both reflect and shape people's opinions surrounding policy solutions (Shanahan, Jones, McBeth, & Radaelli, 2017[1]).

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Similarly, framing scholars theorize that the nature of what information is presented (e.g., Entman, 1993; Gamson & Modigliani, 1989) or how information is presented (e.g., Tversky & Kahneman, 1981) can shape opinions and choices. However, NPF scholarship has been imprecise in distinguishing frames from narratives, at times referring to "policy narrative frames" (McBeth, Shanahan, Arnell, & Hathaway, 2007, pp. 94–95), equating core policy values with frames (e.g., biocentric and anthropogenic frames in McBeth, Shanahan, & Jones, 2005), or simply equating frames and narratives (e.g., Merry, 2016). While some NPF work has sought to distinguish narratives from frames (e.g., Crow & Lawlor, 2016; Jones & Song, 2014; McBeth, Shanahan, Hathaway, Tigert, & Sampson, 2010), framing concepts and narrative concepts remain largely confounded.

Moving toward conceptual clarity of frames and narratives requires answering certain questions. What exactly are the structural and strategic differences between narratives and frames? Are frames internal or external to policy narratives? How do frames relate to specific narrative elements, including the settings that share a similar focusing function? This study aims to advance the NPF by clarifying the meaning and function of specific framing and narrative concepts through a careful examination of relevant theory. Then, the study empirically examines how frames and narrative elements interact to create policy realities.

For theoretical and conceptual orientation, we examine the literatures on frames and narratives. We begin with the task of considering framing definitions that have risen out of different disciplinary traditions. We then map these perspectives onto the NPF's work in bringing an objective epistemological approach to bear on a subjective ontology (i.e., social construction of reality) (Jones, McBeth, & Shanahan, 2014; Shanahan, Jones, & McBeth, 2015). We choose a narrow definition of a frame for this study and consider the location of frames (e.g., internal, external) relative to narratives, followed by a detailed rationale for and definition of narrative settings. Finally, we discuss frames and narratives from the perspective of both communication efforts and cognition.

The Necessity of Precision in Defining Frames

Since Entman's (1993) declaration of a "fractured paradigm" two and a half decades ago, the cracks have continued splintering out like those on a broken window. The framing literature has become ponderous as it has expanded in both breadth and depth across multiple disciplines over the last few decades (see summaries in Borah, 2011; Chong & Druckman, 2007; Crow & Lawlor, 2016; de Vreese, 2005, 2012; Scheufele & Iyengar, 2017). Bluntly stated, virtually all selective presentations of information now qualify as framing activities due to the substantial variation in the disciplinary and theoretical homes that define and operationalize frames. Cacciatore, Scheufele, and Iyengar (2016) levy a massive critique against the current trajectory of framing scholarship, positing that framing will lose its explanatory power as a research enterprise without greater conceptual precision. In fact, they argue that we should abandon the all-purpose term "framing" and opt for more

precisely and narrowly defined framing *types*. We follow their advice by adopting a narrower conceptualization of framing in this study.

Broadly speaking, researchers often trace framing in the social sciences back to separate roots in sociology and psychology (see Borah, 2011). In the sociological tradition, researchers have studied the use of frames in the social construction of problems. Goffman's (1974) seminal work, in which he proposes that frames offer principles of organization or a classifying schema to interpret and bring meaning to information, often serves as a starting point for discussing such ideas. This type of activity utilizes *emphasis frames* that specify which ideas to highlight and which ideas to exclude when considering an issue (Druckman, 2001). By accentuating particular aspects of an issue, distinct emphasis frames lead to different content. For example, Burscher, Vliegenthart, and de Vreese (2016) use cluster analysis to uncover different emphasis frames in the news media (e.g., nuclear weapon development, safety, economic aspects, energy production) that drive different news content about nuclear power. Many emphasis framing studies look only at this different content itself, but over time scholars have also looked more carefully at how different presentations of information influence attitudes and opinions—largely through survey experiments or message experiments (e.g., Bullock & Vedlitz, 2017; Druckman, 2004; Nelson, Clawson, & Oxley, 1997). Consequently, emphasis framing studies have expanded well beyond their roots in sociology or rhetoric into a range of new research areas over time, often with a psychological bent (see Borah, 2011).

The psychological tradition has also produced *equivalence frames* in the interest of narrowing the scope of experimental manipulations (see discussion in Druckman, 2001; Levin, Schneider, & Gaeth, 1998). These frames keep the substantive content the same but alter its presentation slightly, thereby isolating the manipulation. This approach traces back to Tversky and Kahneman's (1981) oft-cited study in which equivalent information about a disease was presented in terms of losses (death) and gains (lives saved), resulting in significant differences in participants' risk response (see discussion in Druckman, 2004). Equivalence framing studies have often focused on the same idea: the effects of portraying the same substantive information in positive and negative ways (e.g., Chong & Druckman, 2007; Koch & Peter, 2017).

NPF research has also drawn from both sociological and psychological traditions. Historically, NPF meso-level scholarship that examines frames in tandem with policy narratives (e.g., Crow & Lawlor, 2016; Shanahan, McBeth, Arnell, & Hathaway, 2008) has leaned into the (sociological) emphasis framing tradition that looks at message construction. This NPF scholarship has cited researchers who define framing as a process of information selection and emphasis that socially constructs the problem definition (e.g., Entman, 1993; Gamson & Modigliani, 1989; Stone, 2012). Therefore, the NPF meso-level scholarship to this point has relied on emphasis framing research that uses case studies to identify issue-specific (versus generic) frames (for issue-specific examples see Benford, 1997, pp. 414–15). The NPF's micro-level scholarship (e.g., Jones, 2014a, 2014b; Shanahan, Adams, Jones, & McBeth, 2014) has focused on narrative features rather than framing devices. However, parallel to psychology-informed framing scholarship, NPF micro-level studies have also employed psychological theories like narrative transportation (Green & Brock, 2000)

and congruence (Taber & Lodge, 2006) in experiments to understand the persuasiveness of particular narrative elements and strategies.

While Cacciatore et al. (2016) bemoan a general lack of cohesion and progress in nonpsychological studies on emphasis framing, they also point out the disagreement about cognitive processing models in psychologically oriented studies. These models are important for understanding "frames in thought" (Druckman, 2001). While equivalence framing effects are often the result of people applying cognitive heuristics, emphasis framing effects are likely more complex. Some scholars have forwarded the notion that emphasis frames make certain ideas more *accessible* when people form their opinions (e.g., Entman, 1993). However, Cacciatore et al. (2016) complain that such an understanding makes the effects of emphasis framing indistinguishable from the effects of agenda setting and priming. The *applicability* model of cognition constitutes an alternative approach to understanding how framing works. This model argues that different presentations of information activate different interpretive cognitive schemas for processing the incoming information (Price & Tewksbury, 1997; Scheufele, 2000).

The cognitive schemas (see Fiske & Taylor, 1991) themselves are consequently a very important part of emphasis framing effects. The idea of schemas goes back at least as far as Piaget's (1952) elaboration of cognitive models in childhood development. Both psychologists and sociologists have used the concept extensively. In an overview of literature, DiMaggio (1997) defines *culturally available schemata* as "knowledge structures that represent objects or events and provide default assumptions about their characteristics, relationships, and entailments under conditions of incomplete information" (p. 269). These schemas are both "representations of knowledge and information-processing mechanisms" (DiMaggio, 1997, p. 269). While work on cognitive schemas appears to have peaked in the late 1990s or early 2000s in the social sciences, neuroscientists have continued work on memory and schemas (see Ghosh & Gilboa, 2014). Understanding *how* frames affect individual opinion is thus necessarily reliant on understanding cognitive schemas. As detailed below, we contend that the NPF's objective epistemology using narrative structure is a way to reveal and measure these individual cognitive schemas.

Bounded Stories: Emphasis Framing, Cognitive Schemas, and the NPF

We can think of individual interpretations of narratives or stories as cognitive schemas themselves (i.e., knowledge structures) or as being associated directly with cognitive schemas functioning as information-processing structures. The NPF has catalogued the ways narratives serve as a preferred means of cognitive organization (see Jones et al., 2014, pp. 2–3 and 13). Other scholars have come to similar conclusions. For example, building on his earlier work (Polkinghorne, 1988) in psychological research, Polkinghorne (2015) has recently defined narrative thinking as "a complex of interrelated schemas for mapping human activity" (p. 157). The narrative paradigm in the field of communication (Fisher, 1984, 1985) similarly positions narratives as the means by which human beings make sense of complex information.

Thus, across disciplines and methods, scholars have converged on the idea that narratives are a means of organizing and understanding information much like cognitive schemas.

Consequently, narratives likely serve as a critical means of advancing the science on emphasis framing and cognitive schemas. Cacciatore et al.'s (2016) call for greater precision to improve the science of framing studies is similar to Sabatier's "clear enough to be wrong" standard set forth in the development of policy theories (2000, p. 135). We respond to the framing scholars' call for greater precision through application of NPF's now familiar rejoinder to Sabatier (Shanahan, Jones, McBeth, & Lane, 2013): the NPF's science of narratives (see Shanahan et al., 2015) espouses a subjective ontology (allowing for different interpretative views of content) and an objective epistemology (employing universal narrative form to measure the mechanisms of persuasion objectively). We assert that the NPF's unique ability to deal with both the subjectivist ideas embedded in message construction and the objectivist epistemology necessary for understanding narrative effects in generalizable ways can effectively build a bridge between sociological and psychological traditions in framing.

Emphasis framing as an activity is theoretically congruent with NPF's subjective ontology. Both are anchored in a meaning-making function: emphasis frames construct the essence of the problem (Nelson & Kinder, 1996, p. 1057) and narratives construct policy realities (McBeth, Jones, & Shanahan, 2014, p. 250). Both center on interpretations of the *what* in policy debates or on the social construction of content; the heart of policy debates resides in these contested social constructions (Shanahan et al., 2017). On the other hand, the NPF's objective epistemology fits with calls (e.g., Cacciatore et al., 2016) to examine framing in more scientific ways. The NPF measures narrative structure in order to understand narrative effects across policy domains (Shanahan et al., 2017). In this study, we address the problem of ontological relativism in emphasis framing by anchoring emphasis frames to particular, measureable narrative elements.

As noted earlier, frames and narratives have historically been confounded. The breadth of framing definitions (see Druckman, 2001, pp. 226–28) locates frames all over the place—within, outside, and spanning throughout policy narratives. As such, the first step in leveraging a more objective epistemological approach is conceptual clarity of frames, separate from the definition of a narrative. In order to gain precision (and replicability), we look to define frames by returning to Goffman's (1974) idea that frames provide a lens through which to interpret information. In the process of classifying or organizing ideas, people use or create categories in which to locate information. In practice, many of the definitions of framing rely on some process of categorization (see Druckman, 2001). Nelson (2004), for example, employs "policy categorization" or "issue categorization" as one of multiple different "rhetorical strategies" (e.g., goal ranking, institutional role assignment) that might be used in framing. We recognize that other useful framing approaches exist (e.g., Iyengar and Kinder's [1987] episodic and thematic frames are likely fruitful in some NPF queries), but in this study we adapt Nelson's subtype to define an *issue categorization frame* as an emphasis frame that assigns a policy issue or problem to a

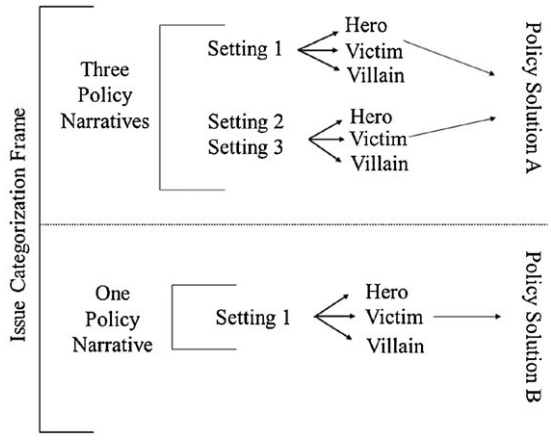


Figure 1. Example Arrangement of Issue Categorization Frame and Narrative Elements.

particular, familiar category.[2] This delimiting of the issue by restricting perspective is the first step in socially constructing meaning. The issue categorization frame provides the aperture through which to focus the audience's attention.

In policy debates, we situate issue categorization frames as external to narratives, serving as a category or border within which the policy narrative unfolds (see Figure 1).[3] Issue categorization frames create boundaries within which policy narrative elements must be logically congruent. The primary need for congruence is between the issue categorization frame and the moral of the story or the policy solution (e.g., Cobb & Elder, 1983; Iyengar & Kinder, 1987; Liu, Robinson, & Vedlitz, 2016). For example, an individual might use morality as an issue categorization frame for gay marriage. A congruent policy solution would be disallowing gay marriage based on a religious rule (i.e., "gay marriage violates a moral order established by God"). In contrast, an issue categorization frame focused on individual rights might mean that the Fourteenth Amendment is the basis for the policy solution (i.e., "we have the right to love whom we love"). Importantly, a single issue categorization frame could be congruent with multiple, maybe even contradictory, policy solutions. An issue categorization frame focused on morality could also contain a policy solution of allowing gay marriage based on a moral imperative to adhere to the golden rule. An example of incongruence would be combining a policy solution of contingent legal tests for allowing gay marriage with an issue categorization frame of moral absolutism. To summarize, a story is "bounded" in the sense that the narrative should share the basic organizing logic of the issue categorization frame.

The Case for Narrative Settings and Issue Categorization Frames

While we have described an inherent connection between issue categorization frames and policy solutions, we also find that the similar focusing function of issue categorization frames and narrative settings reveals an important relationship. Narrative settings focus audience attention on a specific space and time, much like

issue categorization frames focus attention on a subset of potential considerations. While the NPF has proposed that settings are an important structural component of policy narratives (Shanahan et al., 2017, p. 176), empirical NPF work regarding settings is practically nonexistent (see exceptions in Gray & Jones, 2016; Ney, 2014). As such, the need to operationalize the concept effectively is acute. In order to understand the role of settings in a policy narrative more completely, we turn briefly to NPF's intellectual roots in narratology.

In the literary theoretical approach, narratologists have conceptualized settings as a structural narrative element that consists of both *space and time* (e.g., Chatman, 1978; Genette, 1983; Herman, 2011; Herman, Jahn, & Ryan, 2005; Hess-Lüttich, 2012; Phelan & Rabinowitz, 2012; Prince, 1982; 2003). The parsing of settings has generated a sizeable volume of research on the aspect of *time*, which is the specific sequencing of events or the time period of the story (see Herman et al., 2005).[4] However, examination of *space* in settings has moved more slowly due to complexity (Bridgeman, 2007; Phelan & Rabinowitz, 2012; Ronen, 1986). Based on our reading, we understand the concept of space in a setting to have three aspects. First, space can be a spatial context or the immediate surroundings of events (Ronen, 1986), like a room in a government building. Second, space can be the larger social–economic–geographic context (Phelan & Rabinowitz, 2012) in which the spatial context resides, such as the American West. Third, space can be the story world or the audience's completion of setting based on their own experience or knowledge (Herman, 2004), such as understanding of the rural expanse of the American West.

The NPF has defined settings as specific policy contexts like "legal and constitutional parameters, geography, evidence, economic conditions, norms, or other features" that are consequential in the policy area (Shanahan et al., 2017, p. 176). The NPF's perspective of settings has leaned mostly on the larger social–economic–geographic context. Yet, at their most basic, settings are the environment (*space*) in which characters exist and interact with one another *over time* (Herman et al., 2005). The NPF has mostly accounted for time through its definition of plot as the "arc of action" of characters in a setting (Shanahan et al., 2017, p. 176). However, in staying true to the narratology roots of the NPF, identification of setting should involve looking for *where and when the action is taking place* (i.e., the spatial and temporal contexts of characters and their actions). With some guidance from narratology in hand, the next question to answer is: Do settings really matter in policy narratives? We suggest four potential ways that settings are important to policy narratives.

First, settings are critical for understanding the story as a whole. The setting brings characters together and provides a space for them to interact (Herman, 2004, 2009). Settings thereby engage the audience in mental mapping, an important cognitive process for understanding and retaining narratives (Herman, 2009; Ryan, 2003).

Second, settings are crucial for transporting audiences more effectively into the story. Green and Brock (2000) conceive of *transportation* as the process of being absorbed into a story without scrutiny of the information presented. They refer to transportation as a convergent process (pp. 701–2) of empathy with the characters and, importantly for this study, mental imagery of events and place (i.e., setting). This process thus focuses audience attention in part by drawing people into a specific

time and place (Green & Brock, 2000).[5] Though settings are not required in the minimalist definition of a narrative (see Shanahan et al., 2013), narratives without settings have a short shelf life as people enjoy, remember, and are affected by more robust stories. Such stories have higher *narrativity*, or more extensive presence of narrative elements and strategies (see McBeth, Shanahan, Anderson, & Rose, 2012).

Third, settings may contribute to the extent to which a narrative is perceived as congruent to the audience. Policy narratives that are more congruent with the audience's life experiences and understandings of the world tend to be more persuasive (Jones & McBeth, 2010; Jones & Song, 2014; Lybecker, McBeth, & Kusko, 2013; Shanahan, McBeth, & Hathaway, 2011). Public policy is inherently and inextricably linked to real times and places, and a policy narrative can be more convincing with real-world settings. A realistic setting includes actions, events, and characters that are logically consistent, which in turn lends legitimacy to the proposed policy solution (Edelman, 1985). For instance, when a judge issues a ruling from the bench, the courtroom setting provides legitimacy for the story; however, if the judge were issuing the ruling from behind a butcher's counter in a supermarket, the action would no longer carry the same weight for the audience (Edelman, 1985, pp. 95–96). Settings are a key part of creating a realistic world for the audience.

Finally, settings typically serve as a purposely politicized space (Duncan, 1953; Edelman, 1985; Prince, 1982). Geographers (e.g., Massey, 1992; Pugh, 2009) have identified a "spatial turn" in the social sciences that recognizes that space is not static (i.e., a mere backdrop) but rather is political. For example, Horner and Rule (2013) describe one perspective in the Australian immigration policy debate that employs country borders as the setting to cast immigrants as "infectious" outsiders who threaten citizens (insiders) through literal and moral contagion of disease and cultural differences. Thus, space in the immigration debate is constitutive of the politics of immigration by creating notions of "inside" and "outside" that are embodied in a policy solution that creates legal barriers to immigration. Such examples show the power of space to politicize narrative settings.

Scoping back to frames and narratives, some scholars (e.g., Guber & Bosso, 2012) assert that frames and narratives are synonymous; this simply does not comport with the framing and narratology literatures. Narratives have distinguishing structural characteristics that frames do not—like the requirement of at least one character (Shanahan et al., 2013). Even narrowly construed issue categorization frames differ in important ways from narrative settings in that the issue category is not the same as policy contexts like institutions, geography, evidence, etc. Finally, time is a critical element of a narrative (Genette, 1983; McComas & Shanahan, 1999; Merry, 2016). Policy narratives have a narrative arc (Jones et al., 2014, p. 6), but a frame has no temporality. Thus, while settings and issue categorization frames share a similar focusing function, they are clearly different.

Communication and Cognition

In both framing and NPF studies writ large, the focus is on how external (e.g., news media, advocacy groups, political officials) communication influences individual

opinions, attitudes, and beliefs. The NPF has proved successful at understanding how narrative elements and strategies operate within and across externally communicated narratives at the meso level (e.g., Merry, 2016; Schlaufer, 2016; Shanahan et al., 2013), as well as how these externally communicated meso-level policy narratives influence micro-level individual beliefs and opinions (e.g., Jones, 2014a; Lybecker, McBeth, & Stoutenborough, 2016; Shanahan et al., 2014). However, the NPF has largely left unexamined the internal cognition associated with external realities. The framing literature features a similar dilemma. *Frames in communication* produce *framing effects* when they alter or strengthen *frames in thought* (Druckman, 2001). However, as noted earlier, the cognitive mechanisms at work are often variable, confounding, or unspecified.

The applicability model and its emphasis on cognitive schemas provide one way forward. As we have argued, narratives and cognitive schemas appear to fit together quite well. As such, this study represents a new approach to NPF scholarship not only in its assessment of frames and narratives but also in its focus on the narrative elements, particularly settings, employed in internally mapping and organizing information related to external realities. This study maps issue categorization frames to internal cognition in the form of individual narrative elements—specifically characters, settings, and policy solutions. We begin by understanding internal cognition of decision makers regarding flood hazards on the Yellowstone River.

Case Study: Flood Preparation on the Yellowstone River

The Yellowstone River runs diagonally across Montana, from its headwaters in Yellowstone National Park to its confluence with the Missouri River in northwestern North Dakota. As the longest free-flowing river in the contiguous United States,[6] the Yellowstone poses many challenges to flood hazard management. The channels of the river change from year to year, sometimes quite drastically, leaving some channels dry, scouring the bottom of other channels, and eroding banks by sometimes hundreds of feet (U.S. Army Corps of Engineers & Yellowstone River Conservation District Council, 2015). Additionally, the flow is highly sensitive to climatological and meteorological conditions like snowmelt, rainfall, and drought (Montana Department of Natural Resources and Conservation and Yellowstone Basin Advisory Council, 2014). Flood events have caused significant damage in recent years, including an oil pipeline rupture (Ritter, 2011), and disruption of a city's water intake (Hudson, 2016).

Floodplain administrators, mayors, and county commissioners are some of the key people who engage with flood policy at the community level. These local public officials have to uphold federal regulations and attend to the preparedness needs of their communities. At the national level, the Federal Emergency Management Agency (FEMA) administers the National Flood Insurance Program (NFIP) and publishes flood insurance rate maps (FIRMs) based on flood frequency analysis (see FEMA, 2017). The federal government views flood insurance as especially important for community flood preparedness. For land use planning and insurance rate purposes, the most critical part of this map is the 100-year floodplain (Holmes & Dinicola, 2010). Floodplain administrators at the county and local level enforce the

NFIP regulations as they affect landowners, homeowners, public entities, and industry (FEMA, 2017). These public officials also work with their communities to employ a combination of land use planning, emergency protocols, cultural norms, and limited built infrastructure like levees to prepare for floods.

Methods

To understand how issue categorization frames and narratives illuminate internal cognition and the mapping of external realities, we analyzed interview transcripts for flood decision makers along the Yellowstone River. Using a semi-structured interview protocol with five open-ended questions (see the Appendix), we coded first for narrative elements and then for issue categorization frames. We used matrix analyses in NVivo11 to understand the relationships between issue categorization frames, settings, and characters and then used SPSS to assess the frequency of use and covariation among elements.

Sampling

Although the Yellowstone River flows through ten counties, we focused on the five counties and six municipalities within these counties that have recently experienced flood events. We defined decision makers in this domain as individuals who occupied one of four positions within local governments: municipal floodplain administrator, county floodplain administrator, city mayor, or county commissioner. The first two categories are appointed positions deeply involved with flood events and preparation, and the latter two categories are elected officials responsible for budgetary expenditures and overall safety related to these hazards. From a total population of 34 such individuals, we interviewed 26 decision makers between June and October of 2016; 13 interviewees were flood plain administrators and 13 were elected officials. We conducted 24 of the interviews in person and 2 over the phone, all recorded digitally and transcribed. Interviews were 40–75 minutes in length.

Coding and Concept Definitions

Using NVivo11, the research team deductively and inductively coded the interviews (n = 26). Deductively, the team drafted a coding frame for narrative elements as informed by previous NPF codebooks (e.g., Shanahan et al., 2013). Using an iterative approach, researchers reconvened after coding a few interviews at the segment level (i.e., codes could include multiple sentences or parts of sentences) to adjust and clarify coding rules and concept definitions. One researcher coded the remaining interviews in full, with a second researcher independently coding 27 percent of the interviews for reliability (see below). With the interviews coded for narrative elements, we then coded inductively for issue categorization frames, employing the same iterative approach. As issue categorization frames are not always directly observable in the interviews, we examined the text surrounding the policy solution to

identify the issue categorization frame. As discussed above, an issue categorization frame delimits the scope of the narrative and must be consistent with the policy solution. For example, when our interviewees discussed the need for government officials (hero) to deliver education on hazard preparedness (policy solution) to the public, we coded the issue categorization frame as *Government*. This inductive approach allowed us to code for issue categorization frames surrounding character action toward a policy solution.

We assessed reliability by independently coding a random selection of 27 percent of the interviews. NVivo11 offers two measures of intercoder reliability: percent agreement and Cohen's kappa coefficient. NVivo assesses reliability for each node individually by source (i.e., interview). Thus, each of our 63 nodes had seven reliability scores (for the seven interviews coded separately by two individuals) for both kappa and percent agreement. In some instances, kappa scores were low (e.g., 0.18) when corresponding percent agreement was high (e.g., 91 percent). This occurs because the kappa coefficient subtracts out the likelihood of chance agreement, which increases with the amount of uncoded text. As such, we focused our assessment of intercoder reliability on percent agreement by node and averaged the percent agreement across the seven sources for each node. The majority of the agreement fell in the acceptable range, above 80 percent, with many nodes reaching above 90 percent agreement. Two of the 63 nodes averaged below the threshold of 80 percent. First, the Economic issue categorization frame reached only 71 percent agreement. Upon investigation, the lower agreement occurred because one coder double-coded *Government* and *Economic* issue categorization frames at times, while the second coder did not double code. The second lower reliability score (68 percent) came with the policy solution of *Intergovernmental Cooperation*, which was removed from later stages of analysis due to low frequency.

We define a character as *an entity who is human or that is nonhuman with personified characteristics* (Shanahan, Jones, & McBeth, 2018). Some research (e.g., Weible, Olofsson, Costie, Katz, & Heikkila, 2016) limits characters to human agents who act, but we find that narrators may cast nonhumans as critical characters in the story. For example, though we did not code the Yellowstone River as a villain when the river is described as running high and overflowing its banks, we did code the river as a character when portrayed as having motives, emotions, or a personality (e.g., "The river does what it wants"). Additionally, we used the same definitions of hero, victim, and villain as in previous NPF research (e.g., McBeth et al., 2010). A *hero* is the fixer of the problem. A *victim* is the entity being harmed. A *villain* is the entity causing the problem and/or inflicting harm. The same entity can be a hero in one setting and a villain in another.

We coded for setting by answering the following question: *Where is the action taking place?* Historically, the NPF has coded characters without regard for setting; however, the action of the characters often reveals the setting. This new coding rubric reflects the space into which the audience is transported and serves as the vantage point from which the speaker understands and describes the problem of flooding. We found four settings in the interviews.

- A *River* setting, where the action takes place on/near/next to a river (e.g., watching the river from a bridge or bank) or the river itself provides the action (e.g., channel migration).
- A *Bureaucratic* setting, where the action takes place in or between public agencies (e.g., agency meetings and communications) or within implementation of rules (e.g., new FIRMs).
- A *Community* setting, where the action takes place within cultural and social boundaries (e.g., "Around here, we …") or shared public spaces (e.g., flooding on main street downtown).
- A *Private* setting, where the action takes place at specific private locations (e.g., home, property, or business).

The focalization of these settings transports the reader into the narrative at different vantage points, such as an interagency meeting, technical flood insurance language and rules, customs of behavior, shared public space, someone's front porch, or the riverbank.

We define a policy solution as *the moral of the story that gives purpose to the characters' actions and motives*. We coded the exact nature of each policy solution and subsequently combined these detailed policy solutions (referred to as intermediary steps in Shanahan et al., 2018) into five broader categories of policy solutions.

- The *No Federal Assistance* category entails getting rid of federal rules and allowing local government, communities, and private individuals to take care of the problem.
- The *Federal Assistance* category includes improvement of the current flood-prevention infrastructure with federal funding or in line with federal standards, as well as receiving federal relief funds.
- The *Cannot Stop Mother Nature* category entails preparing for the river to flow naturally and doing nothing to stop flooding.
- The *Public Hazards Education* category points toward the local government educating citizens about federal regulations and hazard preparation decisions in order to reduce hazard risk.
- The *Intergovernmental Cooperation* category includes cooperation across local, state, and/or federal government agencies.

Finally, we returned to the data to code for issue categorization frames. Importantly, we decided to code for broad issue categorization frames given Benford's (1997, pp. 414–15) thinking that generic frames have greater utility in advancing science in broader domains (e.g., hazards, social movements) than do issue-specific frames (e.g., Gray & Jones, 2016). Furthermore, these broad issue categorization frames are more compatible with the idea of culturally available schemata mentioned earlier, as they are more likely to be widely shared in a community. As discussed earlier, the policy solution must be congruent with the boundaries that an issue categorization frame defines. However, the policy solution is implemented through the action of the characters in particular settings. As such, we found that both policy solutions and characters in their settings were necessary for reliably coding issue categorization frames. The need to add characters also reinforces the idea that policy solutions and issue categorization frames are not strictly equivalent. We identified four different issue categorization frames.

- We coded for a *Government* issue categorization frame when the hero characters' actions were linked to a policy solution that called for any level of government to assist with (or refrain from acting on) a regulatory or policy matter. However, simple requests for funds appeared in the *Economic* category (see below).
- We coded for a *Mother Nature* issue categorization frame when the hero characters' actions were linked to a solution that allowed nature to take its course.
- We coded for a *Self-reliance* issue categorization frame when the hero characters' actions were linked to a policy solution that invoked an individual's responsibility to take care of him/herself and to lend a helping hand to neighbors in need, with no governmental interference.
- We coded for an *Economic* issue categorization frame when the hero characters' actions were linked to a policy solution that required a remedy along the lines of economic development or financial costs and benefits.

Results and Discussion

Our goal is to understand empirically how issue categorization frames and narratives array to represent the internal cognition of decision makers. We present our results in a stair-stepped manner. First, we discuss the frequencies of issue categorization frames and narrative elements to understand the prevalence of these concepts in the construction of policy realities. Second, we uncover the different narratives expressed by the interviewees by capturing the arrays of characters in different settings with different policy solutions. Finally, we examine the use of these narratives within an issue categorization frame to create a particular internal cognitive mapping of a policy reality.

Frequencies of Issue Categorization Frames and Narrative Elements

We exported the data reference counts from NVivo11 to SPSS so that we could quantify the frequency distributions and usage means for issue categorization frames and narrative elements. Doing so allows us to understand the configuration of elements composing decision makers' cognitive schemas. Table 1 shows the presence of issue categorization frames, settings, policy solutions, and characters in the interviews, as well as the relative intensity of each as indicated by the range of references and a computation of average use.

Issue Categorization Frames. The *Government* issue categorization frame is the most used issue categorization frame, appearing more than twice as often as any other overall.[7] This is not surprising, as our population is government officials from particularly flood-prone Yellowstone River communities. Importantly, individual interviewees often use more than one issue categorization frame. This suggests that some interviewees internally use *multiple different cognitive schemas simultaneously*, even within a relatively narrow domain like flood preparation. While externally communicated policy narratives are strategically constructed in simpler terms, likely within a single issue categorization frame, individual cognition is multifaceted.

Table 1. Frequencies of Issue Categorization Frames and Narrative Elements

	Presence % (n)	Presence Range	Mean Use (sd)
Issue categorization frame			
Government	100% (26)	1 to 14	5.77 (2.89)
Mother nature	81% (21)	0 to 6	2.19 (1.79)
Self-reliance	73% (19)	0 to 7	1.96 (1.89)
Economic	69% (18)	0 to 6	1.46 (1.63)
Setting			
River	100% (26)	2 to 15	6.85 (3.90)
Bureaucratic	92% (24)	0 to 10	5.12 (3.40)
Community	85% (22)	0 to 22	5.88 (5.35)
Private	77% (20)	0 to 9	2.46 (2.60)
Policy solution			
No federal assistance	88% (23)	0 to 12	6.08 (3.96)
Federal assistance	73% (19)	0 to 11	2.19 (2.50)
Cannot stop Mother Nature	69% (18)	0 to 8	2.04 (2.16)
Public hazards education	54% (14)	0 to 7	1.58 (2.06)
Intergovernmental cooperation	38% (10)	0 to 6	0.96 (1.59)
Hero character			
Local government	100% (26)	1 to 19	5.84 (3.58)
Citizens and community	69% (18)	0 to 8	1.73 (1.96)
Federal government	62% (16)	0 to 4	1.23 (1.39)
Levee	31% (8)	0 to 3	0.39 (0.70)
Victim character			
Citizens and community	100% (26)	3 to 22	11.58 (5.57)
Local government	50% (13)	0 to 10	1.42 (2.40)
Yellowstone River	19% (5)	0 to 5	0.54 (0.70)
Villain character			
Federal government	65% (17)	0 to 17	2.92 (3.99)
Irresponsible individuals	42% (11)	0 to 6	0.96 (1.51)
Yellowstone River	38% (10)	0 to 5	0.81 (1.33)
Local government	23% (6)	0 to 6	0.73 (1.71)
Citizens and community	8% (2)	0 to 3	0.15 (0.61)

Notes: The presence % is the percentage of interviews in which the item appears, followed by the corresponding number of interviews. The presence range is the range for the number of times the item appears in an interview. For example, a range of 0 to 5 indicates that the lowest number of appearances in any interview is 0 and the highest is 5. The mean use is the average number of times the item shows up per interview, with a corresponding standard deviation.

Settings. Within cognitive schemas, settings reveal the personal mental map of the issue. Our sample of public officials tends to portray their work settings: the Yellowstone River itself (*River*), their governmental workspace (*Bureaucratic*), and their work with the community (*Community*).

Policy Solutions. Solutions are posited to deal with a particular problem. With the problem of substandard flood preparedness, the most dominant solution expresses what *not* to do: *No Federal Assistance*. This policy solution reflects the confluence of a looming presence of federal regulations for flood insurance and a strong libertarian political culture locally. However, multiple other solutions (i.e., *Federal Assistance*, *Cannot Stop Mother Nature,* and *Public Hazards Education*) are prevalent. As with issue categorization frames, one person sometimes suggests more than one solution, indicating that these solutions are not necessarily mutually exclusive.

Characters. The array of characters is instrumental in creating policy realities within the settings. The dominant characters are *Local Government* as hero, *Citizens and Community* as victim, and *Federal Government* as villain. Authors of policy narratives often cast themselves as the heroes of their own stories, so we are not surprised to find our interviewees as the heroes. Given that the primary constituency of the local government is the local citizenry, these narratives naturally cast citizens and the community as victims. Finally, local officials' designation of the federal government as the typical villain also makes sense given a fairly libertarian culture in this part of state and the frustrations of having to enforce federal regulations that cost communities money.

Policy Narratives: Alignment of Settings with Policy Solutions

To further our understanding of cognitive schemas, we now need to assess the ways decision makers arrange narrative elements. The descriptive results in Table 2 are an important starting point for understanding the narrative terrain. We identified which characters appear in different settings with different policy solutions through NVivo matrix queries in which characters and policy solutions were compared within each of the four settings. The results reveal unique combinations of a particular setting with a specific policy solution as proposed by the characters acting in that setting; each unique combination represents one narrative in the data. Below, we discuss three general findings.

First, our data reveal ten unique narratives on flood hazards at the intersections of settings and policy solutions (Table 2). With four settings and four policy solutions, the total possible number of narratives is 16. However, six of the cells in Table 2 are empty. Interestingly, NPF meso-level research typically analyzes policy debates based on two policy positions—pro and con. In contrast, the data from the 26 interviews reveal a much more narratively complex environment, with multiple narratives both across and within the environment.

Second, the arrangements of character types within these 10 unique narratives (see the double boxes in Table 2) reveal unexpected results. While we anticipated heroes being cast consistently, the most frequently used character in most of these flood narratives is the victim. Interviewees reference victims more than villains in all narratives that feature a villain, and they reference victims more than heroes in 70 percent of narratives. External narratives tend to focus on the hero to persuade individuals (Jones, 2014b); here, internally held narratives have a stronger focus on

Table 2. Internally Held Policy Narratives: Settings and Characters by Policy Solution

Setting	Character	Policy Solution			
		No Federal Assistance	*Federal Assistance*	*Public Hazards Education*	*Cannot Stop Mother Nature*
River	*Hero(es)*	Local Government (13) Citizens/Community (10) Levee (6)	Local Government (11)		Citizens/Community (5)
	Victim(s)	Citizens/Community (24) Yellowstone River (6)	Citizens/Community (15)		Citizens/Community (10)
	Villain	Federal Government (5)			Federal Government (7)
Bureaucratic	*Hero*	Local Government (26)	Local Government (13)		
	Victim	Citizens/Community (23)	Citizens/Community (16)		
	Villain	Federal Government (9)	Federal Government (8)		
Community	*Hero*	Local Government (9)	Local Government (12)	Local Government (11)	
	Victim	Citizens/Community (25)	Citizens/Community (24)	Citizens/Community (11)	
	Villain	Federal Government (6)			
Private	*Hero*	Citizens/Community (7)			Citizens/Community (6)
	Victim	Citizens/Community (9)			Citizens/Community (5)
	Villain	Irresponsible Individuals (7)			

Notes: The numbers in parentheses are the total number of references across interviews. The cutoff for inclusion in the table is five total references.

whom the problem harms. Additionally, the absence of a villain character in 40 percent of the narratives is a surprise. This finding means that the focus of these narratives is more hero-saves-victim than hero-combats-villain.

Third, a closer look at Table 2 reveals that settings are agnostic in terms of policy solutions but sometimes make more sense with one policy solution than another. The linkage between settings and policy solutions depends on the characters cast to describe and solve the problem. For example, the policy solution of *Public Hazards Education*—a professional activity for many floodplain managers—is only situated in the setting of the *Community* and would not necessarily work in the *Private* space, given that the hero cast in the *Community* is *Local Government*. Similarly, the *Private* setting includes *No Federal Assistance* as a policy solution and remains silent with regard to *Federal Assistance* and *Public Hazards Education*. The heroes in this setting are C*itizens and Community*, not governmental entities. However, the policy solution *Cannot Stop Mother Nature* is located in two settings—*River* and *Private*—as the definition of this policy solution is to allow for flooding and for people and businesses to be the hero by taking responsibility for the risk of flood events. Yet, *Federal Assistance* as a solution appears across the setting spaces of *River, Bureaucratic*, and *Community*. This appearance of a single policy solution across settings is possible because the actions in which the characters engage within the setting lead to a particular policy solution. Settings can provide a flexible background for understanding character actions and policy solutions.

Adding Issue Categorization Frames

Cognitive schemas that structure policy realities emerge through the alignment of issue categorization frames, settings, and characters with policy solutions. As such, the next step in our analysis is to document the presence of issue categorization frames in conjunction with each of the internally held narratives. We start by calculating correlation coefficients (Pearson's *r*) to determine which issue categorization frames appear with which policy solution–setting combinations in statistically significant ways. The variable for each issue categorization frame in the correlation matrix is the number of times that particular issue categorization frame appeared in an interview. The same is true of the policy solution–setting combinations. A positive and statistically significant correlation, then, tells us that a particular issue categorization frame moves positively with a particular policy solution–setting combination across interviewees. We take such movement to indicate linkage of issue categorization frames and narrative elements. Table 3 shows statistically significant associations of issue categorization frames and narratives (including settings, characters, and policy solutions), as arranged by policy solution.[8] Importantly, the 10 different combinations here represent different cognitive schemas from the interview data.

The simplest cognitive schema contains only one narrative-frame combination, with the *Community* setting in the *Government* issue categorization frame leading to the policy solution of *Public Hazards Education* (#8 in Table 3). The issue is a governmental one to be solved in the *Community* (setting) by *Local Government* (hero). The

Table 3. Narrative-Frame Combinations in Ten Cognitive Schemas from Interview Data

Frame	Setting	Characters	Solution
Government	[#1] River (0.403*)	Heroes: Local Government; Citizens/Community; Levee Victims: Citizens/Community; Yellowstone River; Levee Villain: Federal Government	No Federal Assistance
Economic	[#2] Bureaucratic (0.395*) [#3] Community (0.443*)	Hero: Local Government Victim: Citizens/Community Villain: Federal Government	
Self-reliance	[#4] Private (0.646**)	Hero: Citizens/Community Victim: Citizens/Community Villain: Irresponsible Individuals	
Government	[#5] River (0.427*) [#6] Community (0.556**)	Hero: Local Government Victim: Citizens/Community	Federal Assistance
Economic	[#7] Bureaucratic (0.445*)	Hero: Local Government Victim: Citizens/Community Villain: Federal Government	
Government	[#8] Community (0.608**)	Hero: Local Government Victim: Citizens/Community	Public Hazards Education
Mother Nature	[#9] River (0.727**)	Hero: Citizens/Community Victim: Citizens/Community Villain: Federal Government	Cannot Stop Mother Nature
Self-reliance	[#10] Private (0.456*)	Hero: Citizens/Community Victim: Citizens/Community Villain: Federal Government	

Notes: The reported numbers in parentheses are Pearson's r for the correlation between issue categorization frames and setting–policy solution combinations across interviews. Two-tailed p-values: $^{**}p \leq 0.01$, $^{*}p \leq 0.05$.

hero provides education for *Citizens/Community* (victim), who could suffer worse consequences from flood disaster without this education. In contrast, the policy reality centered on the policy solution of *No Federal Assistance* involves three issue categorization frames and four settings, constituting four separate cognitive schemas. This means the narrative-frame combinations leading to the policy solution of *No Federal Assistance* are very different. For example, one (#4) says that the issue is one of individual responsibility (*Self-reliance* issue categorization frame) and is situated in a home in the floodplain (*Private* setting). The hero here is the homeowner protecting his/her own property, and the victim is the same homeowner subjected to paying high insurance costs dues to overbearing federal regulations. Another narrative (#1) is that the problem is a governmental one, but the setting is the *River* with the *Local Government* (hero) fending off the *Federal Government* (villain), who questions the efficacy of the local *Levee* (another hero) protecting the town. Despite the same policy solution of *No Federal Assistance*, these narrative-frame combinations transport the audience into very different spaces and characterizations of the issue, creating different pathways to building this policy reality.

We also see in Table 3 that the same issue categorization frame appears across different policy solutions. The *Government* frame is the dominant one in our data, categorizing the issue as a governmental one for three policy solutions: *No Federal Assistance, Federal Assistance,* and *Public Hazards Education*. This result is likely due to our sample of public officials who work on policy issues tied to flood hazard. Whether this particular issue categorization frame also resides within cognitive schemas for members of the larger public in these communities is an important question for future study. The *Economic* issue categorization frame straddles the two different solutions of *Federal Assistance* and *No Federal Assistance*, while the *Self-reliance* issue categorization frame accompanies *No Federal Assistance* and *Cannot Stop Mother Nature*. Finally, the *Mother Nature* issue categorization frame only materializes in conjunction with one policy solution.

Given the multiplicity and complexity discussed above, understanding the role of issue categorization frames and narrative elements in the construction of policy realities comes by capturing the *arrangement* of issue categorization frames and narrative elements (settings and characters) by particular policy solutions. For example, the *Government* issue categorization frame with a *River* setting appears for both *No Federal Assistance* and *Federal Assistance* in Table 3. The difference comes in how the characters populate and act in the setting of the levee on the river. With the *No Federal Assistance* solution, the *Local Government* (hero) protects the threatened *Levee* (a victim that is a shared public space where people go to watch the river) by fighting the *Federal Government*'s (villain) regulatory intrusion. In contrast, with a *Federal Assistance* solution, the *Local Government* (hero) protects the *Community* (victim) by ensuring that the federal government continues to supply reliable river flow data (e.g., river gauges and websites with current and historic data). Thus, the issue categorization frame delimits the focus of the narrative to a governmental issue, the setting brings the audience to the river, and the characters act and interact in ways that create the policy solution.

Conclusion

This study offers a variety of innovations and advancements in terms of theory, methods, and findings for NPF scholars. Along theoretical lines, the study first emphasizes a more precise definition of socially constructed emphasis frames—that of the issue categorization frame. While NPF scholars may find other types of frames useful (e.g., episodic and thematic), we believe this narrower definition addresses conceptual slippage in the emphasis framing literature. Second, we provide a more complete definition of the narrative element of settings, which allows for better comparison and contrasting of settings and frames. Third, we elaborate directly on the respective locations of and connections between issue categorization frames and narrative elements like settings. Fourth, we link the NPF to a specific model of cognition, the applicability model, which emphasizes the role of cognitive schemas in processing incoming information. These cognitive schemas have a lot in common with narratives, thus allowing for a more objective epistemology to address the relativity associated with emphasis framing and opening a new line of inquiry for the NPF.

In terms of advancing methods, we first employed interviews to reveal cognitive schemas. Currently, many micro-level hypotheses in the NPF focus on how externally communicated narratives influence or persuade an individual; through interviews, our study offers a way to capture internally held narratives that are more than just basic opinions. Instead, our analyses allow a view into how individuals assemble policy narratives within particular issue categorization frames. Second, researchers have typically coded for NPF elements separately, but this study offers a method for discovering narrative elements in combination. Coding matrixes for characters and policy solutions within particular settings can reveal the diversity of narratives. Researchers could also use this method for meso-level narratives that are externally communicated by advocacy groups. Third, we suggest an operationalization of setting that locates where and when the action is taking place. Fourth, the process we have adopted allows for identifying issue categorization frames and their relationships with narrative elements (though see the discussion below). Finally, we have identified coding categories for issue categorization frames (e.g., government, economic, self-reliance, Mother Nature) and settings (e.g., bureaucratic, community, private) that should largely be generalizable to other studies, particularly those concerning hazard issues.

We move next to advancements based more specifically on the findings of this study. Policy narratives are stories bounded by issue categorization frames. However, such bindings are not random. Narrative elements (e.g., settings, characters, policy solutions) must be consistent with the issue categorization frame in order to be persuasive. As a consequence, issue categorization frames and policy narratives build policy realties *together*. Importantly, we have discovered that one cannot fully understand the construction of policy realities through simple accounting of individual narrative elements; settings and characters, for example, may traverse different issue categorization frames and policy solutions. Though the prominence

of victims in these internally held narratives is noteworthy for hazards research, this prominence does not tell us much on its own about policy realities. Policy realities become much clearer when looking at combinations of issue categorization frames and narrative elements.

These combinations contribute to a degree of complexity we did not anticipate. Most meso-level NPF research has focused on two (pro–con) policy positions as externally communicated by advocacy groups. We have learned that internal narratives exist in greater numbers than just binaries, sometimes even within a single issue categorization frame. Similarly, we have learned that one issue categorization frame can work in conjunction with multiple different policy solutions. The NPF has historically asserted that narratives with greater narrativity (i.e., greater aggregate use of narrative elements and strategies) are more powerful and robust. We propose that the strategic combination of different narrative elements and issue categorization frames is an important consideration in narrativity for both externally communicated narratives and internally held ones. In this study, we can only describe whether a policy reality is the result of a single issue categorization frame and narrative or multiple issue categorization frames and narratives. Whether a streamlined approach or one with a bounty of issue categorization frames and narratives is more persuasive to an individual is an empirical question that awaits answers.

As a whole, this study's findings have implications for examination and comprehension of the policy process. Understanding how issue categorization frames bound policy narratives can help us to obtain empirically derived and more complete representations of individual cognition beyond opinions or beyond making assumptions. Consequently, we can better understand how various policy actors (e.g., policymakers, policy influencers, citizens) think and how they respond to external messages. Short of significant advances in neuroscience, cognitive schemas can only be revealed through communication. Thus, this study more generally contributes to policy process research through the establishment of connections among narratives, issue categorization frames, and cognitive schemas. The NPF provides a lens for viewing and organizing the communicated information.

This study does have certain limitations. We are unsure to what degree the case study's focus on a natural hazard has influenced the findings (e.g., the findings of a greater focus on victims than heroes and the absence of villains in some narratives). Additionally, our sample is decision makers who are ultimately responsible for external hazard preparation communication. Future research could compare decision makers' internally held narratives with the narratives in their external communications. We also see a need for fleshing out the use of issue categorization frames and narratives in the hazards domain more broadly and for comparing such work to NPF scholarship in other policy areas. Finally, the use of correlations to link issue categorization frames to narrative elements could be stronger. Further work could consider ways to tie issue categorization frames more directly to narrative elements and perhaps to tie cognitive schemas to specific individuals.

As this study represents an initial effort at understanding the role of settings within policy narratives and at integrating this understanding with issue

categorization frames, we see more questions that await answers. How does the multiplicity and messiness among internally held narratives happen? What does it mean? How does it influence understanding and persuasiveness? Moving to external communication, are certain combinations of issue categorization frames and narratives identified in this study more persuasive than others? Additionally, the clearer definition of narrative settings allows for experimental manipulation of settings in NPF studies. Such manipulation presents an opportunity for better understanding narrative strategies, similar to the use of characters to operationalize policy beliefs (see McBeth et al., 2005). We also see room for refining the identities of issue categorization frames and settings and for further developing the coding procedures and methods for measuring convergence or divergence. With the boundaries for studying issue categorization frames and narrative settings established, the aperture for further research is open.

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Notes

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1. This citation reflects the most recent NPF theorizing to date. However, this 2017 work is an iteration built from important previous NPF works, including Jones and McBeth (2010); Jones, McBeth, and Shanahan (2014); McBeth, Jones, and Shanahan (2014); Shanahan, Jones, and McBeth (2011); Shanahan, Jones, McBeth, and Lane (2013); Shanahan, Jones and McBeth (2015).
2. Some framing scholars (e.g., Benford & Snow, 2000; Entman, 1993) situate the processes of categorization, casual attribution, and identifying solutions all under the umbrella of frames. By defining the diffuse term "frame" much more narrowly as an issue categorization frame, we are able to better

differentiate a frame (i.e., the boundary within which a policy issue is categorized) from policy narratives (i.e., narrative elements and strategies).

3. However, we acknowledge that certain other types of frames, like equivalence frames, might be used *within* narratives.
4. Some readers might be inclined to view the specific sequencing of events as the plot rather than as setting. However, narratologists see plot as occupying a space beyond the events and their connections, saying that a plot "keys in on the content of the story and what it is about" (Shenhav, 2015, p. 32). Stone avoids the term "plot" and looks at "story lines" like different "stories of change" and "stories of power" (2012, pp. 158–59). The NPF uses Stone's story lines as examples of plots (Jones et al., 2014, p. 6).
5. Green and Brock's (2000, p. 704) 11-point narrative transportation analytical tool includes a number of items directly related to setting, including items 1, 3, and 10.
6. Labeling the Yellowstone River free flowing or undammed is a source of some controversy, as the river does have several weirs that serve as mini-dams for irrigation and city water intakes (Palmer, 2004).
7. The *Government* issue categorization frame is admittedly broad, though maybe no broader than the *Economic* one. Splitting the issue categorization frame along lines of jurisdiction (e.g., federal, state, local) might be useful in some contexts, but the identities of characters in this case tend to make such jurisdictions clear.
8. Table 3 excludes nonsignificant Pearson's *r* results as well as statistically significant results with small sample sizes.

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Appendix

INTERVIEW QUESTIONS

1. (EXPERIENCE/SETTING): Flooding on the Yellowstone has been occurring over many years. In thinking about [community], can you describe a memorable flood event?
2. (PROBLEM DEFINITION): What happened? What were the consequences?
3. (VILLAIN): Who is to blame for the [flood consequences]?
4. (VICTIM): Who was affected by the [flood consequences]?
5. (HERO): Who helped during this flood event? Who helped right after the event?
6. (POLICY SOLUTION): Can you tell me about what plans were in place to prepare for that flood event?