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Community Recovery Following the Deepwater Horizon Oil Spill: Toward A Theory of Cultural Resilience

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Abstract

Culture plays an important role in communities' abilities to adapt to environmental change and crises. The emerging field of resilience thinking has made several efforts to better integrate social and cultural factors into the systems-level approach to understanding socialecological resilience. However, attempts to integrate culture into structural models often fail to account for the agentic processes that influence recovery at the individual and community levels, overshadowing the potential for agency and variation in community response. Using empirical data on the 2010 BP oil spill's impact on a small, natural resource-dependent community, we propose an alternative approach emphasizing culture's ability to operate as a resource that contributes to social, or community, resilience. We refer to this more explicit articulation of culture's role in resilience as *cultural resilience*. Our findings reveal that not all cultural resources that define resilience in reference to certain disasters provided successful mitigation, adaptation, or recovery from the BP spill.

Keywords

agency; culture; environmental sociology; natural resource-based communities; oil spill; resilience

Scholarly interest in the field of resilience continues to grow at a rapid pace, despite regular critiques of a lack of much theoretical development of its potential social components (Berkes and Ross 2013; Davidson 2010; Keck and Sakdaporlak 2013; Lyon 2014; more). Moving beyond the vulnerability-centric approach of contemporary disaster studies, the social components of resilience are increasingly emphasized as an approach favoring adaptation and transformation in recognition that communities can learn from past environmental crises and modify practices and structures in preparation for future change (Berkes and Jolly 2001; Walker et al. 2004). Yet this community level of resilience and the mechanisms that potentially enable or inhibit adaptation remain under-theorized (Berkes and Ross 2013). We argue that further theoretically-informed investigation into the role of culture in resilience may be integral to advancing our understanding of how resilience operates. Using our investigation into a natural resource-dependent community's recovery following the *Deepwater Horizon* oil spill (DWHOS) and theoretical developments from the sociology of culture (e.g. Swidler 1986), we propose that culture may be viewed as offering

a set of resources available to affected individuals and communities in response to external challenges. We refer to this more explicit articulation of culture's role in resilience as *cultural resilience* and demonstrate its implications for disaster preparation, response, and recovery.

The literature on disaster recovery has long acknowledged the importance of cultural awareness and sensitivity in the development of successful recovery programs (Berke et al. 2008; Binder et al. 2014; Chamlee-Wright 2010; Trickett 2011). This work has demonstrated the importance of understanding the broader cultural context in which intervention efforts take place, as without such awareness outside response and recovery efforts will not be able to harness the latent capacity for resilience and recovery that exists at the local level. This capacity includes the social capital that flows through local networks (Berke et al. 2008; Binder et al. 2014) and the motivating power of community narratives regarding history and place (Chamlee-Wright 2010). Less attention has been paid to how, exactly, culture contributes to resilience in a more individual and agentic manner. We thus use our empirical evidence to better integrate existing work with theoretical developments from the sociology of culture that offer insight into the mechanisms through which culture may facilitate, or impede, individual action and community recovery post-disaster.

Our concept of cultural resilience builds on the work of Colten et al. (2012), who emphasize the role of “inherent resilience” in mediating the impact of disasters. They define inherent resilience as “practices that natural resource-dependent residents deploy to cope with disruptions and that are retained in their collective memory” (4) and propose that it is often overlooked by the “formalized” approach to disaster response undertaken by both government and private entities. These traditional practices and communal narratives enable community members to collectively interpret and draw meaning from their disaster experiences and shape individual and collective actions (Tierney 2014). Yet recent attempts to fully integrate culture into contemporary theories of resilience remain under-theorized, treating culture as a distinct and homogenous system (e.g. Crane 2010) or confining the concept to a systems level (e.g. Lyon and Parkins 2013). It may instead be more analytically and practically useful to consider culture's ability to operate as a resource within social-ecological systems that individuals may draw upon in response to external crises or threat, which can either aid or inhibit community resilience under given conditions. These cultural resources exist in conjunction with a social-ecological system, but they reside in the knowledge of individual actors, and they are used to construct “strategies of action” for everyday life (Swidler 1986, 2001, 2008) and for confronting “problem situations” (Gross 2009). We therefore define *cultural resilience* as the capacity of communities to mobilize cultural resources in response to external crises and threat, which in turn shapes individual and community actions related to the recovery process.

Our approach is also indebted to the symbolic-ecological perspective within disaster research first advocated by Kroll-Smith and Crouch (1991). When “socially-rendered strategies” for relating to an environment are ineffective in the face of a significant stressor such as a disaster, an “extreme environment” occurs within which the symbolic-ecological relationship will be highlighted (Kroll-Smith et al. 1997). Symbolic-ecological linkages shape social relations within a community because they operate “between and within social

units that also incorporate various social constructions of ‘nature’” (Picou 2009, p. 128–9). Disasters challenge a community’s symbolic-ecological relationships in part by straining cultural traditions and practices related to the biophysical environment and the social relations that depend on them. Moreover, disasters create a theoretical case for investigating the “socially-rendered strategies” left ineffective post-disaster, because extreme environments are analogous to what Swidler (1986) refers to as “unsettled times.” During these periods, strategies that otherwise exist at a largely taken-for-granted and unarticulated level are exposed more clearly, creating an ideal opportunity to document them.

Our case study of Apalachicola, Florida, a small and rural natural resource community (NRC) impacted by the DWHOS provides this opportunity. The unique properties of NRCs serve as an ideal way to redirect disaster research away from vulnerability and toward local capacity for agency (Flint and Luloff 2005). Apalachicola has a long history of facing natural disasters, as well as a strong collective awareness of their ability to respond to and cope with hardship, and they have developed a deep tradition of community resilience as a result. This resilience was challenged, however, by conditions created by the DWHOS and by the response process, when local cultural strategies that had served the community for generations were rendered suddenly inoperable. The reversal of several of these existing strategies for resilience into vulnerabilities within the context of the disaster demonstrates the continued need for approaches to resiliency that emphasize the mediating effects of culture and agency on community recovery.

Theorizing the Role of Culture in Resilience

The concept of resilience emerged from ecological science as a perspective on the nature of unstable ecological systems (Folke 2006). Holling’s (1973) seminal work on the persistence of ecological systems in the face of stressors is often credited as the first use of resilience as a way of thinking about system equilibrium and adaptation. Today, resilience is often defined as the capacity of a system to withstand or absorb outside stressors in order to return to some nonequilibrium, or multi-equilibrium state (Walker et al. 2004).

Contemporary resilience thinking has expanded to examine the interplay of social-ecological systems (Berkes and Ross 2013). Adger (2000), for example, outlines the relationship between social and ecological resilience, by defining social resilience as “the ability of communities to withstand external shocks due to their social infrastructure” (p. 361). Adger (2000) argues that institutions must have the capacity to absorb environmental disturbances: “it is important to note that, because of its institutional context, social resilience is defined at the community level rather than being a phenomenon pertaining to individuals” (p. 349). And yet, it is individuals who must adapt to changing circumstances to effectively contribute to community resilience – not solely the institutions themselves. Too great a focus on either exogenous factors or institutional resilience downplays the capacity for agency embedded within communities themselves and contributes to a lack of research examining the local knowledge and practices that contribute to community disaster response, which “is a better indicator of community action than structural characteristics” (Flint and Luloff 2005, p. 405).

Further attention to individual-level processes that may aid or inhibit community resilience is thus a logical and necessary step in enhancing social-ecological resilience thinking. We argue that greater engagement with the concept of culture, whose relation to action and ability to operate as a causal variable has been significantly refined over the last several decades, offers a promising path forward. References to culture are scattered throughout the research on resilience. Dyer et al. (1992), for example, discuss the cultural heritage disrupted by the *Exxon-Valdez* oil spill among native Alaskans. Culture exists behind references to collective memory (Colten et al. 2012), place meaning and place character (Cox and Perry 2014; Lyon 2014), and community strengths (Berkes and Ross 2013; Tierney 2014). Others have noted the importance of properly understanding the local cultural context for organizing successful intervention efforts post-disaster (Berke et al. 2008; Telford and Cosgrave 2007). Few studies, however, have taken these important insights into the role of culture in resilience and attempted to develop them into a fully articulated and analytically useful concept.

One exception is Lyon and Parkins (2013), who attempt to integrate culture into their model of social-ecological resilience, arguing that a more robust understanding of cultural adaptation is needed. They note: “studies that draw on theories of culture would address this, but are limited within the resilience literature, which is surprising given that culture creates the social lenses through which people see the world” (p. 532–3). A second exception is Crane (2010), who also explicitly adds culture to a model of social-ecological resilience. Culture is here conceptualized as a separate, normative system of values more or less capable of absorbing changes in economic practice. When cultural resilience is lacking, crises will be experienced by community members as disruptive; when cultural resilience is strong, the crisis will be experienced more smoothly.

We argue that while prior approaches to the role of culture in resilience and disaster recovery are notable, they are often limited by a top-heavy and dated conceptualization of culture. Theorists in sociology and anthropology have heavily criticized this classic, Parsonian approach, in which culture is seen as a system—consistent across actors, homogenous, and distinct from both social systems and personalities—and instead emphasized its uneven, dynamic, and fragmented properties (Barrios 2014; Brightman 1995; DiMaggio 2002; Gupta and Ferguson 1992; Swidler 1986). Key to our purposes here, Swidler (1986) introduced the ‘toolkit approach,’ in which culture is seen as a collection of habits, beliefs, and practices that are unevenly distributed and utilized as a resource by individual actors as they construct strategies of action for everyday life. Further advances have continued to develop a more sophisticated understanding of how and when culture does affect action, whether the causal mechanism is, ultimately, supported by practice theory (Bourdieu 1990; Lizardo and Strand 2010), pragmatism (Gross 2009), symbolic interactionism (Miles 2015), field theory (Martin 2003), or cognitive science (Vaisey 2009). While culture is given a conditional place in the “social lenses through which people see the world,” it is stressed that this world is continuously being (re)built as individuals mobilize and engage with these understandings to various degrees and in a variety of ways (Sewell 1999).

To say that culture operates as a resource for social action is not meant to imply that collective meaning and values are not still relevant. Social location contributes to the

dispositional outlooks and skillsets that become embodied in cultural practices, and thus it remains an important determinant in the structural distribution of culture (Bourdieu 1990; Fligstein and McAdam 2012). NRCs, for example, have been demonstrated to invoke particularly strong attachments to place, which can be integral to the forming of individual and community identity that governs how individuals understand appropriate action by themselves and others (Cheng et al. 2003). Focusing on the way culture is *used*, however, allows the researcher to also view it as an “individual parameter” (Abramson 2012), thus granting the concept necessary room for individual variation and agency, rather than leaving it a blanket term for broad generalizations of social behavior.

While downplaying the existence of culture as an overarching system, then, we argue that a more contemporary approach that look at patterns in its composition, usage, and distribution within and across social groups offers an opportunity to improve resilience thinking. Differences between individuals and groups in the distribution and utilization of culture are integral to the modern reproduction of inequality, particularly to the degree that powerful institutions privilege some over others (Lamont et al. 2014). Institutions involved in a claims process following a disaster, for example, may assume widespread availability of the detailed accounting records prevalent at large corporate environments rather than accept the bookkeeping typical of small family-run businesses, thus forestalling their ability to recover.

Incorporating the causal effects of culture into resilience thinking will thus allow us to pick up on variance in the individual-level orientations and culturally-based strategies that contribute to local capacities for resilience across communities in a way that respects a role for “actor-oriented processes” without resorting to purely psychological explanations. With proper attention given to the interaction between local community environments and the larger, external fields in which they are embedded, we can also avoid reverting to the ahistorical and power-absent approach to which cultural analyses have at times been prone (Barrios 2014). In other words, cultural resilience can be a language for traversing what Berkes and Ross (2013) refer to as a “productive common ground” of community that lies between a psychological and social-ecological approach.

Case Study and Methodology

Whereas Crane (2010) then applies a “resilience perspective to cultural systems,” we apply a cultural perspective to resilient systems. Examining the contribution of culture to resilience in a natural resource community provides a compelling case within which symbolic-ecological linkages are especially clear. NRCs share a special relationship with their environments because they are both economically and culturally dependent upon them (Dyer et al. 1992). They are especially sensitive to environmental disruptions as a result of this relationship (Gill 1994; Gill and Picou 1998). While place attachment in NRCs is often a source of community resilience (Cutter et al. 2008), it can also contribute to negative effects on individual mental well-being in the aftermath of technological disasters should that place be irrevocably altered (Lee and Blanchard 2012).

In 2010, the worst oil spill in U.S. maritime history occurred off the coast of southern Louisiana. The *Deepwater Horizon* drilling platform suffered a massive explosion, which

sank the entire drilling operation. For nearly three months, the mile-deep wellhead leaked crude oil into the Gulf of Mexico, releasing some 185 to 205 million gallons of oil. To understand the long-term impacts of the spill on coastal communities, and with the ultimate goal of providing recommendations to improve community resilience, we designed a multisite case study of four counties in the eastern Gulf region and collected hundreds of hours of observations, focus groups, and interviews. Here we focus on our analysis of data collected from one of these sites, Franklin County, and its largest community – Apalachicola.

Located along Florida’s “Forgotten Coast,” the 2,000-person community of Apalachicola is in many ways an archetypal NRC. Its history is centered on the extraction of natural resources and the adaptation to shortages by means of shifting to exploiting a new resource. When timber forests began to dwindle, a sponge industry developed to make use of the abundant species in Apalachicola Bay. As the sponge population was over-harvested, the region turned to seafood harvesting– in particular shrimp and oysters. Prior to the DWHOS, the Apalachicola Bay had produced 90% of Florida’s oyster catch and 10% of the United States’ oyster harvest (UF IFAS 2013). Following the DWHOS in the summer of 2010, the catastrophic threat to the fragile oyster beds prompted mismanagement and overfishing. Already stressed by steadily decreasing freshwater flows from the watersheds feeding the estuary, the limited oyster harvests from the Bay rapidly declined, prompting Florida’s governor to request that a fishery resource disaster be declared in late 2012 (Clas 2013). As of 2016, the ecological health of the Bay remains dim with very little improvement in oyster stock forecasted for the future.

We utilized community-based participatory research (CBPR) for this project, an approach that prioritizes shared decision-making in all stages of the research process (Israel et al. 1998). Prior to beginning fieldwork, we developed a partnership with Franklin’s Promise Coalition, Inc. (FPC), a nonprofit community social service organization in Apalachicola. Through this partnership, we were able to identify and recruit participants from key demographic, occupational, and social groups for a series of focus groups conducted between November 2011 and April 2012. Focus group results helped shape the development of semi-structured questions for individual interviews with community stakeholders.

In total, we conducted 37 semi-structured interviews in Franklin County, with individuals representing a variety of business, political, and civic interests, and an emphasis placed on workers in the seafood and tourism industries. The interview schedule included twenty open-ended questions covering topics including: the spill’s impact on personal, family, and community life; response and recovery efforts; experiences with the claims process; and comparisons with prior disasters. Though our analysis is informed by the entirety of the project interviews, the findings we present here focus on an open-ended question asking participants to reflect on the characteristics of their community that make it resilient to disasters. No prompts on specific definitions of resilience were given, allowing respondents to reflect on significant characteristics of their community in their own terms.

We used QSR NVivo 10 qualitative data analysis software to facilitate the coding process. Interviews were transcribed verbatim and all responses were sorted according to categories

identified during initial stages of the study. We then used open-coding to identify emergent themes and topics within these categories of data, followed by a closed-coding scheme that structured these findings into broader components based on common underlying factors (Emerson and Shaw 1995). Findings were discussed and reviewed with FPC to confirm their validity in relation to their decades of experience working to address local social problems.

Components of Cultural Resilience in Apalachicola

Earlier we expanded the definition of culture to include a collection of habits, beliefs, and practices structured by a social-ecological context but utilized by individuals as they construct strategies of action for everyday life (Swidler 1986, 2001, 2008) and for confronting problem situations (Gross 2009). When describing what makes their community resilient, residents articulated the ways in which they derive a propensity for particular strategies and modes of response from three primary components, which we have labeled: *Place*, *Heritage*, and *Moral Identity*. While we find clear evidence that individuals attempted to draw from these community-defined sources of resilience in the aftermath of the spill, the nature of spill context, and, perhaps more importantly, the nature of the institutional response process, severely limited their application. Below, we describe how each of these components operated, first in general and then within the context of the DWHOS, as articulated by our respondents. As noted above, disaster conditions create an extreme environment that highlights the symbolic-ecologic relationship within a community, thus allowing resident views to be captured during a time when they are particularly salient.

Place

Past studies have noted the motivating power of place meaning and place attachment (e.g. Brehm et al. 2013; Cheng et al. 2003; Cox and Perry 2011; Marshall et al. 2005). Consistent with these findings, characteristics of place form the first component of Apalachicola's cultural resilience, which includes preparedness for recurrent hardships and a willingness to fight to preserve a valued environment integral to the community's heritage. These sources of community resilience are derived from the specific meaning given to Apalachicola as a place: first, as one that is unique, beautiful, and, consequently, worthy of protection; and second, as one that is challenging, imparting a seasoned readiness to those who live there. A nearly universal response to the question of what makes Apalachicola resilient was that residents are able to tap into a common appreciation for what they have and are willing to do what is necessary to protect their environment. As one resident summarizes, resilience stems from "pride of area and knowing that we want to stay here and we are going to do what we need to do to make sure we can" (Natalie, real estate).

Respondents also described the role of familiarity with inclement weather, primarily hurricanes and tropical storms, characterizing themselves as "fighters" and "survivors" who deal with storms as regular events. Over the last fifty years, the Apalachicola region has experienced nearly forty tropical storms, including five named hurricanes (NCDC 2014). Experience with regular climatic weather is said to lead to a stoic preparedness on their part, both ready and resigned at the same time. As one resident states: "Disasters are going to

happen, I don't think we can avoid them. We have all chosen to live here" (Adam, tourism business).

Regular exposure to inclement weather breeds the kind of inherent resilience identified by Colten et al. (2012) as developing and persisting in local knowledge and memory. Similarly to many coastal residents of the Gulf, resilience to disaster was almost always defined in reference to hurricanes:

People when they first move here, they'll say, "oh, it's a hurricane, it's a Category One, I'm gonna leave!" and you remember that you went through that too. Once you experience life and things you become more resilient towards it. I see people now who would have left during a Category 1, who wouldn't think about it at that point. (Elizabeth, civic leader)

Despite the potential for major damage following a hurricane, attachment to Apalachicola, as a place, provides a sense of stability. Respondents described how people can always fall back on its natural resources, however scarce, when times get tough:

You know what was so great about this community here? During the housing crisis, a lot of the younger generation were doing construction and landscaping work... When all of that crashed, your local people in this part of the world had something to fall back onto, they fell back on the bay... They were able to maintain their lifestyle and keep what they had without losing it. (Carl, seafood business)

The bay has been a constant, renewable source of income across generations. This multigenerational dimension adds depth to the component, but even for newcomers, the area "gets in your blood" (Lynn, real estate).

Heritage

The second component identified by residents as contributing to Apalachicola's cultural resilience revolves around its traditional heritage. This component includes respect for tradition, valuation of local knowledge, appreciation of the area's simplicity, and a preference for hands-on methods, which is derived, in part, from Apalachicola's status as a relatively insular geographic community. The self-portrait painted of the region by residents is of a strong, hardworking, and trusting community, but one that is also highly individualistic and at times resistant to new ways of life.

This individualistic way of being was frequently related to the nature of the dominant industry, as oystermen are used to getting paid small, frequent amounts and are able to set their own pace, be their own boss, and retain that direct relationship between their own labor output and their net income. As Donald, an oysterman, describes it, there are "few jobs [where] the harder you work the more you make." When combined with the modest income and cyclical ups and downs that accompany the occupation, this creates what is described as a very simple way of living:

People live a little bit simpler. A lot of 'em don't get to drive new cars. They don't have \$800 a month car payments. They live, they entertain their self from going hunting and fishing. We have a beautiful place to go fishing and hunting around and

that's one thing that we try to take care of, is keep everything natural, the woods and the rivers and pollution free. (Matt, seafood business)

Appreciation for this simplicity is another recurrent theme within this component, and it is often reported in tandem with views of limiting area development. For example, John (civic leader) connects this appreciation to his intention to protect the area from commercialism and damage to the environment:

We don't have ten story condos here in Franklin County, we don't have shopping malls, we don't have theme parks, we don't have manufacturing jobs. Why? Because it's all about protecting the environment, our ecosystem and our way of life; we don't want anything in here that is going to cause pollution, which is what you have when you have unbridled growth.

Many residents take solace in living in the "forgotten coast" and not conforming to modern and consumeristic norms.

Another factor reported within this component is the intergenerational transfer of knowledge within the community that takes place on the bay, often between kin, rather than in a classroom or other professional setting. Respondents pointed out that the skills involved to make it in the oyster industry are usually passed down within families: "just growing up in the swamps and growing up on a boat. You're fishing with your daddy and your granddaddy. They know where the [fishing] holes are" (Marc, tourism business).

Moral Identity

The third component contributing to the community's cultural resilience is moral identity derived from harsh environmental and work conditions. Working hard is not just said to be a trait in Apalachicola; it's an imperative. This final component includes deeply held values and notions of self that exist at an individual level, and as part of the community's overall self-concept, which can be drawn upon in times of hardship. The component also includes the vaulted status of personal characteristics such as self-reliance, individualism, and hard work, as well as a shared and enforced value system that frames these as necessary traits in people like "us" that are not contained in people like "them."

While oystering is said to have its rewards, a strong safety net is not one of them. Oystering is hard, precarious, and seasonal. As there is no threat of being fired for failure to show up at work, it is economic need that provides the strongest motivation. Therefore the "scrappiness" that results from precarious economic conditions and the resourcefulness that comes from being your own boss are reported as key factors within this component, and as a strong resource for community resilience. As one resident describes it:

There's certainly a large sense of self-sufficiency here. Our economic base is natural resource production, in order to be successful in that, you have to be able to go out on your own or with one other person on a boat, harvest your resource, clean it, package it, and bring it back and sell it to somebody. You are responsible—a large percentage of our population, our workforce, is responsible for the start and end of their [day]. They're not a cog in the wheel. They're their own wheel. They

are somewhat self-reliant, and I think that helps the community be resilient. (Phil, civic leader)

Again, this economic way of life has existed across generations, which is recited as further testament that the community is made up of strong, hard-working, independent people who know how to get a job done and are willing to do what they need to do to survive.

This survival, of course, begins with the Bay. Respondents regularly identified the economic interdependence created by commonalities to the bay as a cornerstone of community resilience. Awareness by individuals of this interdependency is said to activate solidarity, even between the often-sparring industries of seafood and tourism, as each industry needs the other to economically prosper. But both need the local community, as well, as a restaurant owner notes, because: “during the winter...it’s the locals that keep our doors open” (Karen, tourism business). If the Bay is disturbed, so, too, are the interconnections it creates in the local economy, disrupting the daily economic conditions that underlie trust in the resourcefulness and hard work that constitute such a strong foundation for both individual and community identity.

Resilience in the Face of Disaster

Crises often force communities to close ranks and to enforce traditional norms and practices in order to cope with external threats. However, the context of the DWHOS created a series of conditions significantly different from past experiences and knowledge and therefore not amenable to familiar strategies of response. This context is particularly helpful for illustrating how the components of cultural resilience outlined above operate. In addition to the unsettled conditions created by the spill itself, our findings suggest that the top-down, formalized approach to disaster recovery promoted by external agencies involved in the response process also failed to match with local strategies for resilience, a disjuncture that magnified the frustration of the experience for residents.

We begin with *Place*. While attachment to place was referred to as a key contributor to community resilience, consistent with findings from previous studies on the “dark side” of place attachment (e.g. Lee and Blanchard 2012), our inductive analysis revealed it to be also a vulnerability. Even before the spill came close to shore, its news had brought the shared value of the Bay and the community’s dependence on it to a level of awareness not always considered in day-to-day life. Yet residents also reported that the shared perception of the natural environment’s value meant that most residents were equally threatened. The prospect of oil contamination was clearly a threat to the economic livelihood of seafood workers, but it did not stop there. As Elizabeth puts it, “All of our lives circulate around the bay and the river. There is nothing that is divorced of that.” For many, this circulation goes far beyond economics. The disaster impacted the Bay and therefore it threatened the community itself: “We are not talking about damaging some reef,” says Chris (civic leader), “we are talking about taking out a way of life that has existed for generations.”

While attachment to place was clearly mobilized after the spill as a potential resource for community resilience, the official response process did not allow it to be actualized. In fact, our data indicate that the formal response blatantly limited community input and

participation. As Ron (nonprofit) states: “It didn’t take us too long to figure out that it was kind of just a little bit of a façade, because BP was not allowing anyone to volunteer to help clean up. Just because of their liability that if you went out there and started cleaning something up and you got sick from exposure to the oil or whatever, they wouldn’t let anybody volunteer to clean up the oil or wildlife.” Combined with the greater uncertainty and potential dispersion of the oil through the Gulf, residents felt like they were squaring off with “ghosts,” rather than a hurricane or poor yield, and yet the fear they faced for their environment was very real.

Likewise, our analysis reveals that *Heritage* was also found to operate as both a strength and a vulnerability within the context of the DWHOS. Part of the darker side of Apalachicola’s traditional heritage is that information relayed by outsiders is not always trusted. This was brought into relief by the specifics of the spill. As Lynn (real estate) explains her company’s hand-on response to the crisis: “We’d rather get [the information] ourselves and know that one of us knows what’s going on.” While the preference for being hands-on has served the community through multiple trials, Russell (nonprofit) describes the frustration with the recovery process articulated by many: “I think the thing that has stayed Apalachicola is just the resilience of the people, of the individuals. I think that was what was so devastating to the community was that they had never come up against something that would be so out of their control that they couldn’t do something.”

Again, disaster conditions mobilized familiar strategies, but instead of respecting this history of hands-on tactics and relying on local knowledge, the response process limited community involvement and exacerbated feelings of distrust and lack of control.

Finally, in the context of the DWHOS, spill conditions foregrounded the values and strategies embedded in the *Moral Identity* component by challenging their continued relevance for structuring individual action and community identity. Many residents reported failure on the part of others to uphold this identity during and after the crisis. The response process was instrumental in creating this effect, largely because so many perceived moral failures occurred within the context of BP’s response measures. For example, the most recurrent topic of moral failure relates to the initial round of compensation checks. These are frequently said to have provided an incentive for workers not to work; or rather, they provided an incentive not to work for those who lack the proper inward impetus:

Me, I went to work seven days a week when they opened the bay seven days a week catching all I can as long as I could, taking them to a dealer. I was trying to bank my money back so if they oil did come here, we got shut down, I was gonna have to go look for another job. Then you got some people that was goin’ to BP. They was filling out BP claims. They was gettin’ paid immediately. (Randall, oysterer)

The distinction between “us” and “them” that occurs when describing the action of others during the response is at times a simple personal distinction between other’s ways and “my” ways, such as a decision to keep working when someone could easily have chosen to stop. Other times, however, the action of others is framed more strongly as a violation of local norms, whereas: “Those of us who were born and raised here—we know this is coming and

it's gonna go, and so when it leaves, you pick up the pieces and start over. You don't cry for help. You don't scream, 'give me money!'" (Sabrina, tourism business).

Adding to these compensation effects, many of those who did take the money are said to have not handled it wisely, but rather to have "wasted" the money on cars, boats, televisions, and other consumer goods. Many non-oystering residents offered a common story: that the oystermen refused to return to work after receiving payouts from the claims processes. As the narrative we repeatedly heard went, many oystermen could live better on claims checks than work, and their decisions to do so added to the financial burden of the broader business community. Additionally, well-compensated oystermen were judged for purchasing luxury items instead of investing BP's claims money back into the community. Several respondents even said that seafood workers were capitalizing on the crisis by challenging the traditional power structure granting seafood distributors more power through their refusal to return to fishing. As a city official phrases these sentiments: "they wanted to send that type of message" after "getting shafted for years by the seafood industry and the owners" (Mike, civic leader).

Discussion

As articulated by its residents, cultural resilience in Apalachicola is derived from the three components of *Place*, *Heritage*, and *Moral Identity*, each of which gives rise to a set of socially-rendered strategies that function effectively within the parameters of daily life and under the periodically recurring natural disasters to which this region is prone. Approaches to understanding social or community resilience that place an overly heavy emphasis on institutional factors Adger (2000) or systems-level approaches that treat culture as a fixed system of norms and values equally available to all and applicable to any disaster context are likely to misattribute the many challenges in the recovery process from the oil spill to a lack of community resilience within Apalachicola. Our analysis suggests instead that the components of cultural resilience outlined above provided specific resources available for individuals to draw upon as their individual experiences and reactions were formed.

Not all resources will be applicable to all disasters. Coastal residents attempted to draw upon familiar strategies of response, but some failed to work or failed to apply – leading to many unmet expectations of the progression of the disaster and thus adding to the stress of the experience. Moreover, the institutional context in which this disaster unfolded, particularly the structure of the response process, also imposed its own set of assumptions regarding the primacy of certain practices and modes of behavior. The spill's official recovery framework, organized primarily by external actors, may then have differentially disadvantaged this particular community's ability to respond to the disaster in a resilient manner, a potential outcome that is too often ignored in the resilience literature (Barrios 2014; Pugh 2014; Welsh 2014).

This potential is growing into an important debate, however, with increased criticisms of the resiliency concept for being a normative "co-option into a neoliberal governmentality" (Welsh 2014: 21), as individuals are encouraged to enhance their resiliency while simultaneously decreasing dependence on the state (Pugh 2014; Welsh 2014) and failures to

bounce back from disaster risk being attributed to certain cultural practices (Barrios 2014). For example, we observed multiple sites of conflict over the implementation and utilization of formal recovery programs following the spill. Whereas these interventions may have offered opportunities for local actors to utilize their skillsets and resources to affect positive change (Fligstein and McAdam 2012), we instead observed a situation where some local actors took advantage—or were *perceived* to have taken advantage of—an opportunity offered to maximize their own resource allocation at the expense of the group.

The reversal of these perceived sources of resilience into vulnerabilities presents a challenge to the culture-as-system approach to social resilience: resilience may be context-dependent. Local strategies to quickly recover and economically bounce back from a hurricane were not all relevant to managing recovery from the oil spill and some were, in fact, detrimental to a swift recovery. A different community may have been better equipped to address a technical disaster such as the DWHOS, since community characteristics and adaptive capacity are linked (Berkes and Ross 2013; Fligstein and McAdam 2012). It is not necessarily, then, that only the unfamiliarity or technological distinction of the spill would account for a different outcome, but rather the extent to which a set of strategies and practices that have been “socially rendered” within the community could be more applicable. Rather than engage in “victim blaming,” resilience-building activities should instead take into account these cultural resources and engage in planning and recovery interventions that are culturally appropriate (Barrios 2014).

A theory of cultural resilience will thus be challenging to quantify and combine with ecological models of resilience. Cross-case comparisons, as well as the incorporation of additional methodologies, should prove integral to expanding and developing a full theory of cultural resilience, particularly as culture’s ability to operate as a resource for social action is seen most sharply through a comparative lens (Abramson 2012). The components identified in this study do, however, point to some potential approaches to measuring cultural resources that may be applicable to other disasters. Place attachment, for example, is likely to be a common resource in coastal communities, along with a heritage that is traditional as opposed to innovative and inward rather than outward looking. Our analysis reveals that such communities may favor self-reliance, continuance of work, and independent movement towards hands-on solutions. Continued identification of the ways in which culture contributes to effective community and institutional response may allow other models of community, or social, resilience to be more finely attuned to local practices. In the context of the DWHOS, an awareness of the culture behind these practices could have helped policy-makers craft a response that would have been a better fit between the community’s needs and its existing resources.

Conclusion

It has now been over two decades since research on the Exxon-Valdez spill called for culturally appropriate responses to disaster recovery (Dyer et al. 1992). Although the disaster research field responded to this call by studying the role of culture in disaster impacts and recovery, the evolving academic and professional fields of resilience thinking has paid far less attention to its significance in shaping the experience of disaster as well as

communities' adaptive capacity in preparing for the future. Through this case study, we have attempted to demonstrate how a theory of cultural resilience would better emphasize the role of individual action and agency in the recovery process that has been shaped, in this case, by Apalachicola's shared awareness of place, heritage, and moral identity. Increased attention to individual-level processes that may aid or inhibit community resilience may also help researchers understand how to improve capacity for innovation and change in the face of looming environmental crises. Furthermore, in building culturally appropriate responses, local capacity can be enhanced from the ground up in a sustainable fashion, increasing resilience to future crises.

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