Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.

Social Science & Medicine 272 (2021) 113743

Contents lists available at ScienceDirect

Social Science & Medicine

journal homepage: http://www.elsevier.com/locate/socscimed

A spectrum of (Dis)Belief: Coronavirus frames in a rural midwestern town in the United States

Adam D. Koon [a], Emily Mendenhall [b,*], Lori Eich [b], Abby Adams [c], Zach A. Borus [d]

[a] Department of International Health, Bloomberg School of Public Health, Johns Hopkins University, Baltimore, MD, USA
[b] Science, Technology, and International Affairs, School of Foreign Service, Georgetown University, Washington, DC, USA
[c] Feinberg School of Medicine, Northwestern University, Chicago, IL, USA
[d] Avera Medical Group, Spirit Lake, IA, USA

ARTICLE INFO

Keywords:
Coronavirus
COVID-19
Framing
Rural America
Ethnography
Health politics
Belief

ABSTRACT

Community responses to the SARS-CoV-2, or "coronavirus" outbreaks of 2020 reveal a great deal about society. In the absence of government mandates, debates over issues such as mask mandates and social distancing activated conflicting moral beliefs, dividing communities. Policy scholars argue that such controversies represent fundamental frame conflicts, which arise from incommensurable worldviews, such as contested notions of "liberty" versus "equity". This article investigates frames people constructed to make sense of coronavirus and how this affected social behavior in 2020. We conducted an interpretive framing analysis using ethnographic data from a predominately white, conservative, and rural midwestern tourist town in the United States from June to August 2020. We collected semi-structured interviews with 87 community members, observed meetings, events, and daily life. We identified four frames that individuals constructed to make sense of coronavirus: Concern, Crisis, Constraint, and Conspiracy. *Concern* frames illustrated how some individuals are uniquely affected and thus protect themselves. *Crisis* frames recognized coronavirus as a pervasive and profound threat requiring unprecedented action. *Constraint* frames emphasized the coronavirus response as a threat to financial stability and personal growth that should be resisted. *Conspiracy* frames denied its biological basis and did not compel action. These four conflicting frames demonstrate how social fragmentation, based on conflicting values, led to an incomplete pandemic response in the absence of government mandates at the national, state, and local levels in rural America. These findings provide a social rationale for public health mandates, such as masking, school/business closures, and social distancing, when contested beliefs impede collective action.

1. Introduction

Community responses to the SARS-CoV-2, or "coronavirus" outbreaks of 2020 reveal a great deal about society. As the virus spread through rural and urban settings, national, state, and local leaders behaved according to their interpretations of "what really matters" for their constituents (Kleinman, 2006). Some communities voluntarily shut down schools and businesses for months, while others ignored public health recommendations and rejected any notion of a government mandate. Debates over issues such as mask mandates and social distancing activated conflicting moral beliefs, dividing communities. Policy scholars argue that such controversies represent fundamental frame conflicts, which arise from incommensurable worldviews (Schön and Rein, 1994), such as contested notions of "liberty" versus "equity", which have characterized divisions in America's dominant political parties (Haidt, 2012). Understanding the value basis of these conflicts provides situated insight into the social dynamics that lead to entrenched policy positions. For this reason, we propose that COVID-19, the disease that advances from SARS-CoV-2 infection, is as much a social pandemic as a biological one. Moreover, the pandemic response has been hampered by applying technical solutions to a dynamic set of social problems, without fully appreciating their implications. In this article, we analyzed the frames citizens of a small midwestern tourist town constructed to make sense of coronavirus and how this affected social behavior in 2020.

Framing is a fundamental construct in the social sciences that explains how local moral worlds are inherently interactively constructed. In *Naven,* Gregory Bateson (1936, 1958) used the concept of "ethos" to

* Corresponding author.
E-mail address: em1061@georgetown.edu (E. Mendenhall).

https://doi.org/10.1016/j.socscimed.2021.113743
Received in revised form 28 January 2021; Accepted 31 January 2021
Available online 9 February 2021

unpack a collective frame of "the motives and the values" (22) through which people think, behave, and interact. He argued, ethos reflects "the system of emotional attitudes which governs what value a community shall set upon the various satisfactions or dissatisfactions which the context of life may offer" (220) and "constitutes a factor in the determination of the needs and desires of individuals" (1958:22; also qtd in Garro, 2011: 303). In this way, frames are interactive processes through which people construct meaning, enacting ethos, or as Linda Garro (2011) described "forms of social practice that unfold in local moral words" (304–305). This helps explain, in part, how people make sense of the world around them and their relationships in which health becomes embedded (see Jenkins, 1991).

As an analytical construct, frames are useful because they balance structure and agency, meaning that our world is framed by events and experiences and yet we actively frame events and experiences (Goffman, 1974). A central premise is that humans are perpetually engaged in the social construction of multiple, but equally legitimate interpretations of reality (Berger and Luckmann, 1967). Frames accomplish a great deal through their recruitment and mobilization of values. Their ability to operate at deep (social values), intermediate (issue-defining), and surface (linguistic) levels, endows them with a uniquely political character (Lakoff 2006). Because frames can define, diagnose, and evaluate problems as well as prescribe solutions (Entman, 1993), they are central to public opinion (Chong and Druckman, 2007) and social movements (Benford and Snow, 2000). For these reasons, scholars are increasingly using framing theory to understand the policy process for a wide range of health issues (Koon et al., 2016).

We draw from interpretive scholarship on framing to focus specifically on how people made sense of coronavirus during the summer of 2020. As a component of framing, sensemaking is an interactive process of enacting plausible explanations for disrupted social order and forms the organizational basis of identity (Van Hulst and Yanow, 2016; Weick, 1995). While scholars have reflected on their experiences making sense of COVID-19 (Stephens et al., 2020), the symbolic politics of the response (Dzhurova, 2020), political fragmentation (Carter & May 2020), and resilience among leaders (Barton et al., 2020), little empirical research has been conducted. Similarly, much remains unknown about how COVID-19 has been framed (Gilson et al., 2020), particularly in rural parts of the United States, which are increasingly at risk. We argue that it is inherently the social values imbued within these frames related to masking, socially distancing, and staying home that explain why collective responses have failed and the public health crisis continues to intensify.

How people respond to public health emergencies cannot be dissociated from social and political discourse indicating who is good and bad, right and wrong, or healthy and sick (Briggs, 2005). Based on research among Afghani families, Eggerman and Panter-Brick (2010) contend that cultural values foster considerable psychosocial strain as people rectify individual versus collective decisions. Moreover, what causes fear versus acceptance in illness and death cannot be dissociated from how people perceive and communicate affliction (Spitzenstätter and Schnell, 2020). This is in contrast to how Foucault (1990) perceived the use of medical knowledge to regulate behavior and reshape the self to adapt to a new biological reality. Briggs and Mantini-Briggs's (2003) work in Venezuela shows that institutions benefit from deflecting blame for cholera onto individuals by interpreting risk through cultural frames. This may relate to individuals but also communities—real and imagined. For example, Carolyn Smith-Morris (2017) located racism within a form of epidemiological placism during the Dallas Ebola outbreak of 2014 that inflected stigma from the infected patient, Eric Duncan, to the country of his birth (Liberia) and local residence (Vickery Meadow). Thus, rhetoric of emergency produce imagined and real images through which media and social discourse often inflame how people conceive actual risk within certain places and among certain people (Fassin and Pandolfi, 2010).

In this article, we investigate how residents constructed frames to make sense of coronavirus risk in the absence of national, state, or local mandates to follow public health guidelines for masking, staying home, and socially distancing. In the small tourist town in which this study was conducted, mandates were lifted in early May and the community shifted its collective attention to prepare the local economy for its seasonal burst of activity. We analyzed the construction of frames that transformed a biological threat into a social one, leading to its temporary designation as a national coronavirus "hotspot" (Coughlin, 2020). We found that understandings of coronavirus inconsistently varied according to age, health status, political beliefs, economic background, and profession—there were not two polarized ways of thinking. Instead, there were multiple overlapping and conflicting ways of understanding the pandemic, tied to deeper cultural beliefs, social values, norms, and ways of life in this conservative, rural, and mostly White community. By disentangling these "webs of significance" (Geertz, 1973), this paper explains how biological threats reveal dormant social fault lines, which leave communities vulnerable.

2. Methods

This study was conducted in a small Midwestern town in rural America, which is largely White (96%), conservative (two in three people voted for Donald Trump in 2020), and Christian (two-thirds, and most are protestant or evangelical) ("DATAUSA: Dickinson County, Iowa," 2020; "Election Results for Dickinson County, Iowa," 2020). This county accounts for nearly 17,000 year-round residents, and 100,000 summer residents. We interviewed primarily year-round residents and some summer residents (as opposed to tourists) to ensure we garnered an understanding of local perceptions and experiences. The coauthors' longstanding relationships and positions in the community facilitated study recruitment and intersubjective meaning-making.

Iowa was one of a handful of states that did not enact a formal "stay at home" order. Several respondents said, "We never really closed down in Dickinson County." But Governor Reynolds closed schools, churches, restaurants, and many retailers for a few weeks. State Representative John Wills, Speaker Pro Tempore in Iowa's Congress, wrote an op-ed in the Dickinson County News on April 28, 2020, entitled, "When should Iowa reopen the economy?" He suggested they had reached the peak, or would peak in the coming weeks. He argued that although there was fear of opening too soon, and spurring an outbreak, there was also the ensuing pain of financial ruin. Wills said, "Iowans can do both. We can fight COVID-19 by adding health precautions to protect ourselves and each other but also get people back to work and have Iowa thriving again." He went on to explain that Trump left decisions about reopening up to states. Governor Reynolds would soon reopen places like Dickinson County where cases and population density were low. He concluded, "There is no doubt that Iowa's best days lie ahead" (Wills, 2020).

The Republican governor of Iowa Kim Reynolds loosened restrictions on May 11 for counties with low coronavirus numbers. By May 22, Reynolds stated, "Movie theaters, zoos, aquariums, museums, and wedding reception venues will be permitted to reopen with appropriate public health measures in place. Swimming pools will also be permitted to reopen for lap swimming and swimming lessons" (Office of the Governor, 2020). By Memorial Day (May 25), everything was essentially open. Vice President Mike Pence said Reynolds is "leading the way" with her plans to reopen the economy and that "the outbreak in Iowa has not been like we've seen in other states and other metropolitan areas around the country." He continued complimenting the Governor, "It's a tribute to your early, strong steps" (Pfannenstiel and Coltrain, 2020).

We convened this study in early June to investigate why few businesses required masks and social distancing despite an increase from six documented cases in May to over 200 cases by the end of June. We expanded the study in July to accommodate a range of emerging perspectives frames as the outbreak matured. Coauthors (EM, LE, AA) conducted 81 in-depth (30–90 min) ethnographic interviews with 87

community members, business owners, elected officials, public health practitioners, and healthcare providers. We observed and recorded two public discussions of the school board. We also observed dialogue in the street, social media, community forums, school board meetings, and a local newspaper. These interviews were audio-recorded, transcribed verbatim, and complemented with comprehensive field notes about interviews, social interactions, board meetings, and everyday talk. Further, these observations, insights, and interviews were facilitated through our insider-status, as all study participants were full or part-time residents in the area; one author (ZAB) facilitated the public health response for the local hospital.

We used snow-ball sampling to recruit study participants (n = 87). Individuals were contacted through Facebook, including the second author's classmates who now work throughout the community. Those declining to participate often referred a friend, neighbor, or colleague. Some study participants were conveniently selected based on informal interactions in daily life (i.e. the local grocery store, park, etc.). Most interviews were conducted over zoom, although some were conducted in person, always socially distanced on people's porches, yards, or parks. We provided the consent for participating in advance of the interview (via email or Facebook), and we completed consent (verbal) before the interview was carried out. Our interview guide addressed questions about time (when did you first hear about, quarantine for, understand, respond to, adapt for coronavirus), risk (who are you most concerned for in your family – yourself, spouse, child, parent, sibling, other – and what are you doing to mitigate that risk?), and responsibility (focused explicitly on what public health prevention behaviors are they engaging in, why, and for what reasons).

Framing analysis borrows from different research traditions, including pragmatism, phenomenology, and hermeneutics, to explore situated interpretations of social phenomena. In our study, this was a useful way of understanding how individuals perceived and experienced coronavirus. We met daily to discuss each interview to "make, communicate, interpret, share, and contest meaning" (Yanow and Schwartz-Shea, 2006: 9). After approximately twenty interviews, vague frames emerged from the data, and over the subsequent 61 interviews we developed, tested, talked through, built, and re-examined frames. This process, as well as the review and interpretation of other data, involved all authors. More formally, we developed the codebook collectively and coded particular features associated with each individual, eventually aligning them with the frames presented here. We systematically coded each interview transcript and used these codes to confirm that each individual was appropriately assigned into each frame/category. We used Lakoff's (2006) classification of frames to distinguish between deep (social values) and intermediate (issue-defining) and Dewulf and Bouwen's (2012) framing mechanisms to examine how they interact.

This research was approved by the Institutional Review Board of Georgetown University. It was endorsed by the local coronavirus task force group at the hospital.

Table 1
Demographics.

	N	%
Age		
18–30	9	9.28%
31–49	61	62.89%
50+	27	27.84%
Gender		
Women	59	60.82%
Men	38	39.18%
Income		
Low or low-middle	12	12.37%
Middle	47	48.45%
Upper Middle	14	14.43%
High	24	24.74%
Education		
High School	5	5.15%
Technical	3	3.09%
Some College	15	15.46%
4 year degree	46	47.42%
Graduate	28	28.87%
Politics		
Libertarian	3	3.09%
Republican	41	42.27%
Democrat	40	41.24%
Moderate	5	5.15%
Independent	7	7.22%
Unsure	1	1.03%
Perceived Health		
Healthy	71	73.20%
Healthy, but … *	13	13.40%
Illness (chronic, acute, recovered)	8	8.25%
Overweight	7	7.22%
Perceived COVID Risk		
Low	67	69.07%
Low, but … *	4	4.12%
Middle	12	12.37%
High	14	14.43%
Coronavirus Infection		
Yes	5	5.15%
No	92	94.85%
Frames Reported (n = 99)[a]		
Concern	44	44.44%
Concern and crisis	26	59.09%
Concern and conspiracy	3	6.81%
Concern and constraint	2	4.54%
Crisis	15	15.15%
Crisis and concern	3	20%
Crisis and constraint	1	6.67%
Constraint	24	24.24%
Constraint and crisis	9	37.50%
Constraint and conspiracy	2	8.33%
Constraint and concern	1	4.17%
Conspiracy	16	16.16%
Conspiracy and concern	2	12.50%

[a] We assigned a primary frame (to which an individual most closely aligned) and secondary frame (for which an individual showed some shared beliefs/values).

3. Results

Citizens in this small rural midwestern town made sense of COVID-19 in particular, and inconsistent, ways. As a component of framing, this sensemaking process enacted myriad responses, often irrespective of exclusive political, economic, or public health priorities. The four frames that emerged from this study did not illustrate an explicit social divergence; rather, they characterize a spectrum of (dis)belief among many people in this community. Most people were very concerned about coronavirus, regardless of politics, religion, and income. Table 1 shows that most people we interviewed were between 31 and 49 years of age (63%), with one quarter older and nine younger. Three in five people in the study were women, the majority were middle class, and had completed some or all of college. Most self-identified as Republican (42%) or Democrat (41%), with others self-identifying as Libertarian (3%), Moderate (5%), and Independent (7%); one person was unsure. Most perceived themselves to be healthy (72%), with 13 stating they perceive themselves to be healthy, but they hesitated and said they "vape sometimes", were "older", "immunocompromised", had "asthma", or "smoke". Fifteen percent were somewhat concerned about their health due to weight or illness. Sixty-nine people perceived their risk for COVID-19 to be low, with four people saying their risk is low, but I "have asthma", "have allergies", "am a hypochondriac and am so very anxious", and "we don't actually know what risk is". Twelve people perceived medium risk and 14 perceived high risk – mostly due to age and underlying conditions. Five people had previously had coronavirus, but most had only known people with the virus; over the period in which the interviews were conducted, seven people in the community died.

In what follows, we describe frames people used to make sense of risk, responsibility, and health in relation to coronavirus (see Table 1).

The most common and broadest frame (**concern**) was related to occupational relative risk (44%), where people described COVID-19 as a unique biological threat, requiring adherence to public health recommendations because they or their family were healthcare workers, frontline workers, or teachers. A variant of the concern frame related to old age was also common. Similarly, individuals who perceived the pre-existing health status of themselves or their family members to be threatened by the virus narrowly endorsed public health guidance. Overlapping, but at times distinct, was the **crisis** frame, where people followed science and public health recommendations closely (around 15% subscribed to this frame as a primary frame, but around 36% endorsed aspects of this sentiment). The **constraint** frame was constructed by business owners and their (often hourly) employees (24%) who were more concerned about economic implications than the biological threat posed by COVID-19. Similarly, younger people subscribed to the constraint frame as they perceived minimal biological risk to themselves and were more concerned by COVID-19's impact on their social lives. Another common frame was the **conspiracy** frame (16%), where people held strong anti-government sentiment and did not follow public health recommendations at all, some calling it a "hoax". Similarly, the conspiracy theory frame was endorsed by three individuals who identified as anti-vaxxers as well as those who self-aligned closely with President Trump's political rhetoric. The latter two frames were skeptical of science to varying degrees and the government's role in regulating private affairs. While these numbers reflect our sample, we do not have data on the wider community. Also, individuals were understood to subscribe to multiple and occasionally conflicting frames, while suggesting that these are amenable to change over time.

Understanding these frames provides important insight into the ways in which beliefs shape action, as shown in Fig. 1.

3.1. Concern frame

COVID-19 is a concern because it uniquely affects me or my family; therefore, I will protect myself. The most common frame was associated with how people crafted their risk and responsibility around the health of others – thereby holding a strong sentiment of personal risk, which played a powerful role in adherence to public health guidelines. Many people expressing the concern frame asked why people have forgotten the early mantra of the local campaign, "we are all in this together." This was reflected in the comment of a local elected official, who stated, "It is our job to protect. It is a safety issue." Many described in detail how serious coronavirus is, exemplified by a nurse who self-identified as a lifelong Republican and Christian: "*I'm wearing a mask and I'm like you guys this is not a joke. I've been trying to explain to my husband this is serious like these kids cannot play with the neighbor kids. Like you cannot. I'm terrified for my mom who smokes and has some chronic lung diseases.*" Many feared contracting the coronavirus and transmitting it to a loved one, or someone within their social network. This was particularly true if someone was perceived to be at high-risk of serious complications from coronavirus infection.

People who expressed the concern frame held varied political beliefs, religious affiliations, and incomes. Most expressed frustration with the "political charades" of neighbors in both public and virtual spaces, such as the supermarket or Facebook, respectively. For example, one healthcare worker said,

> "as far as working at the hospital and having people who are fearful, it is a lot. I try and do a lot of education because […] one half [of the community] is terrified to go out or touching or doing anything and then the other half that is completely on the other side. I try to educate people that we can still live our lives we don't have to be isolated, that simple protections do help as far as masks, washing hands, and maintaining six feet of distance."

Within this group, few had visited a restaurant in over six months and were astonished by those visiting bars. Some were understanding of why people did not follow the rules, but still engaged in public health practices: A healthcare worker explained,

> "You know the only way that I can see it getting better is if Iowa mandated face masking in close tight quarters. Something like that would be the easiest way to protect everybody, if you across the board said wear face masks. But then again on the personal side of that I don't know if I want to be told to do that. But I'm doing it anyway."

This same healthcare worker was emphatic that social distancing and face masks were important in part so she could resume religious practice; the Catholic diocese opened mid-summer and this brought her a great deal of calm.

Many participants endorsed the concern frame based on their occupational status. People who were employed in service-oriented industries often described willingness to wear masks and socially distance to ensure their own safety, or that of their family. Some indicated that they went above and beyond to make masks for themselves and co-workers with fewer means. As the hospital is the largest employer in the community, most people we interviewed who self-identified as close adherents to public health recommendations had someone close to them who works in the hospital, if they did not work in the hospital themselves. Teachers also subscribed to the concern frame. They were anxious about returning to school (all interviews were conducted within a month of school re-openings), as exemplified by a middle-aged teacher who expressed:

> "I just want it to be normal and I want to get back into it. I feel like our district, and maybe I'm wrong, but I feel like that because of our area our district is going to go full in, no masks. I think they will be recommended but not required, I could be wrong, I've been surprised in the past with things. But I don't know I just feel that, I don't think we are going to follow a lot of anything. And hopefully we are in an area, although it is a tourist area but rural enough, you know it is not like New York City or something that we are able to get through it."

She went on to call her mental state a "corona coaster" due to the uncertainty that public health recommendations would be endorsed by the School Board.

The concern frame resonated with older people concerned about their age or health risk. Older people described heightened risk for moderate or severe COVID-19 as the reason *why* they stayed home or wore masks. A 75-year-old grandmother said, "*The older ones are distrusting because they think that the younger ones don't care.*" One retiree, who said her daily Bible study was the main thing keeping her sane, said, "we read things and listened to news and all that kinda stuff and got out masks on … did we wear our masks right away? Yes. I think we did right away. I think I started sewing the masks for the hospital right away." Many also described modifying their own behavior to mitigate risk for

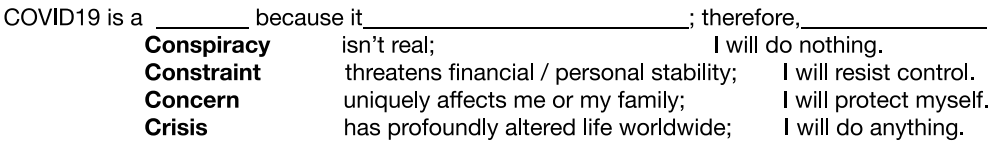

Fig. 1. Frames as a logic of social behavior.

loved ones or people close to their family. Another retiree and widow, working odd jobs for extra money to give her grandkids, said, *"I've been trying to be pro-active but at the same time I've said to people, you know, what I guess people just have to make their own choice. And my choice is to stay safe, you know, wear my mask, not be in crowds. I'm not a bar hop anyway so I don't need to go to [popular bar]. And would I like to go to [fancy restaurant] to go to supper, yeah, but there will be next summer you know we can give it up for a little bit."*

The concern frame illustrates how individuals act according to an intersubjective interpretation of what is required of them when their daily lives are altered. This pragmatic response explains a great deal about why the concern frame doesn't attach strongly to narrow social structures such as political beliefs, religion, or socioeconomic status. As opposed to conformity to social roles, the concern frame explains how action is a product of "people meeting their conditions of life" (Blumer, 1969: 74). These conditions could be the occupation of a friend or family member, the health status of themselves or others, or their age. Through experience, individuals make sense of coronavirus, activating deeper values such as security and welfare, and cautioning against perceived notions of risk. Thus, the concern frame both enables preventative action against coronavirus, while restricting this to small clusters of immediately identifiable social groups.

3.2. Crisis frame

COVID-19 is a crisis because it has profoundly altered life worldwide; therefore, I will do anything. The crisis frame involved people who feared coronavirus in part because they follow international news and scientific data very closely. For example, an older woman who has not had a tv for 13 years said she exclusively reads the "Economist" magazine and listens to BBC for news. She and many others noted that they read the Johns Hopkins Coronavirus updates daily. She went on to emphasize her disbelief in President Trump's leadership on coronavirus, stating, *"I don't understand how anybody can believe somebody or respect anything they say at all after they make statements like, maybe we can inject ourselves with some bleach? You know? I mean like, it's bizarre. It's completely bizarre to me."* Most people expressed exasperation by the large majority of people who disregarded public health recommendations, with many saying that most people are being careful. One local activist exclaimed, *"I think the local at-risk population is being more careful. And I mean I am sure that you know they all kind of despise the tourist in summer anyway, so they kind of lock down and leave town."*

Most talked about personal responsibility in some way, such as a business woman who said, *"I do have a strong immune system, but, you know, my husband works with someone that's immune compromised, so if he got it, he would pass it to her. She would most likely die. Just so many reasons why we should be safe."* An older small business owner explained his rationale for being very cautious to prevent coronavirus, *"I think first of all you have to be respectful and have empathy for others."* He continued, *"I've just decided to work by appointment you know no walk-in and no regular hours at all that is essentially what I'm doing."* He added, *"I guess that is the sad part to all of this that you can't interact with the public like you normally would."* A young progressive small business owner explained how other's indignance to masking or staying home to prevent coronavirus has affected how she sees her community:

> "Honestly it has changed my perspective even driving down the road now. Because I'm viewing humans differently as to how they are caring for other people. And so, if they have so much disregard for other people how are they going to be driving so fast this vehicle you know. I have all of these other mind-boggling perspectives on human nature that comes from this. That I feel we have gone so far from the general moral of what it is to be human and what it is to live in a community to take care of one another."

Respondents speaking within the crisis frame were adamant about mask-wearing, social distancing, and quarantining as much as possible, especially if they were high risk. Most ordered groceries online, picked up take-out, and avoided public spaces. A young woman who bagged groceries at a local grocer explained, after describing why she was frustrated people would not wear masks in the store, *"I like love my homemade mask and I wear it all the time and I can breathe so good."* Largely this group is less visible because they stay home, away from the public, and are a minority in this rural community.

The crisis frame suggests a profound preoccupation with existentialism and inherent tensions between authenticity and angst. In our data, intersubjective constructions of crisis reflected the destabilizing force of COVID-19 not only on individual perceptions of health risk, but at least as much on preconceived notions of community. These poignant accounts suggest a recalibration of place and social solidarity, so cherished by sponsors of the crisis frame. The fragility of life in the context of a pandemic sweeping the globe stood in marked contrast to their friends and neighbors who saw it as a challenge to authenticity. Moreover, many were further troubled by the exercise of personal freedom (those resisting social conformity), especially in the absence of government mandates. For these reasons, narratives related to the crisis frame are marked by despair; many expressed feelings of disorientation, searching for meaning, while trying to remain socially distant. The extent to which these competing impulses could be reconciled was unclear at the time of our research.

3.3. Constraint frame

COVID-19 is a constraint because it threatens financial/personal stability; therefore, I will resist control. We interviewed people amidst the 100 days of summer during which many people generate a large share of their annual income. This was a source of tension for the many business owners and frontline workers we interviewed. Most were concerned about exposure to coronavirus but expressed a strong desire to keep their businesses open. Business owners described very careful practices, such as working by appointment only, as one businessman explained, *"What we have done, we've locked the doors, it's by appointment only, it's up to our clients whether they wanna wear a mask."* Similarly, a regional store manager explained that workers could make their own decisions about their safety (even though there was already a mask-mandate in place at the store): *"my cashiers themselves, if they feel more comfortable wearing gloves, we suggest it. If not, we totally understand - we offer hand sanitizer for our team to use as they need to."* A foreman at a manufacturing plant similarly said, *"now it's basically if you're anywhere near anyone, put your mask on. Any of the common areas. If you're going for a break or going to the restroom or any of that kinda stuff you gotta wear your mask."* Yet, not everyone was that flexible: a barista we interviewed described feeling shame about wanting to wear a mask by her boss who was a very open anti-vaxxer and who believed people needed to contract COVID-19 to build immunity. A local religious leader explained that conflicts over masking reflect a class issue: *"I think money can insulate you from a lot of problems. And this is a problem that goes through that and all of a sudden, the things that affect people at Walmart now also affecting the people on [wealthy part of town] and that is not something that usually happens. But the people who work at Walmart are a lot more used to being inconvenienced."*

Few young people were concerned about coronavirus. Many claimed to have already had it, or actively tried to get it in the early weeks of summer. A 21-year-old waiter said, *"I was hoping I could just get it [laughter] to be honest with you."* He went on to explain that many of his friends had coronavirus, but few were tested. *"I haven't heard of anybody that's even been to the hospital or doctor, anyone that I'm friends with, I guess my age. Nobody's been to the hospital, doctor, and nobody that's said that um like the bad feeling has lasted more than four days."* The public health community was aware of their beliefs, as one public health official said they were worried about young people who *"are really apathetic because it feels like, 'Oh maybe I'll be asymptomatic, I'll just get it over with.'"* Yet, these young people interfaced with the broader community every day:

young people worked in largely unmasked jobs with high risk for exposures like waiting tables, filling boats with gas, or selling ice cream or trinkets. Others worked in masked jobs, such as bagging groceries or stocking shelves. Interviews with parents of young people also agreed that their kids had coronavirus, but were never tested, indicating that the numbers of people infected in the region was much higher than the state recorded.

Most young people appeared unphased by the virus, frequently visiting local bars, restaurants, beaches, and lake-parties, such as tying up boats together in a popular cove to drink, smooch, and party. There was reason to worry, as one young woman bartended for an entire week with covid at the busiest bar in town; three weeks later she said she *"went in and got an anti-body test and sure enough it came back positive."* Another young woman was forced to return to work before the doctor had cleared her, even though she made minimum wage selling t-shirts. At a large business conglomerate, where staff stay in residential housing, one woman explained that *"One of my roommates and then co-workers was really sick, and she just felt terrible. She went into work that day and we were talking to her and we felt that she had a fever and we were like you really need to go home and get checked. And she was really nervous to tell them because they never made it feel like it's okay to, you know, if you had coronavirus."* Most of the cases occurred in June 2020, when we frequently heard people in the community say, *"everyone has covid!"*

Through the constraint frame, the taken-for-granted assumptions embedded within intersubjective, co-created social realities are amenable to further analysis. Some of these assumptions concern the economics of tourism, the efficacy of pandemic control measures, occupational power asymmetry, viral immunity, age-specific mortality risk, and behavioral expectations of peer group acceptance. Ethnographic data also provides insight into the ways in which members of social groups interpret individual experience to create collective meanings of the consequences of COVID-19 through exchanges that resonate with (and shape) their 'lifeworld'. This includes accounts of specific changes to business practices, previous viral exposure/infection, powerlessness in employer/employee relations, and patterns of risk-taking behavior. These phenomena suggest that adherents of the constraint frame share an affinity for security, highlighting salient threats to their financial and social stability, while (at least publicly) diminishing health and safety concerns. In this way, health protections directly conflict with assumed, informal social protections. Thus, in the absence of government mandates, the constraint frame is particularly problematic because the proposed measures to stop viral proliferation are understood to threaten a way of life.

3.4. Conspiracy frame

COVID-19 is a conspiracy because it isn't real'; therefore, I will do nothing. Most subscribing to the conspiracy frame did not believe in "dictating" masks or social distancing and described beliefs in "personal freedoms" and "personal choice" above all else. These individuals did not believe coronavirus to be a major health threat; a School Board member described it as similar to the "cold or flu." In this framing, people called coronavirus a "hoax", or found it difficult to believe public health messaging because, as a public official stated, "*Republicans probably trust Trump over the CDC*." Most in this frame actively rejected masks and this was linked to political myths as well as religious beliefs. A school board member stated, *"I'm not a big fan of being dictated to either. You control kids as much as you can. I mean if they go to school, I'm going to tell them, 'hey buddy,* 7th *grader' [pause] but that is different. I know that it doesn't seem like a big deal but that is controlling. […] The beautiful thing about where we live is its every family's choice."*

Many stated that coronavirus would go away after the November election, thinking it was a political gimmick linked to the Democratic Party. Much of this narrative was reinforced by President Trump, Fox-News (Re, 2020) or conspiracy theorists, like Alex Jones (Owermohle, 2020). Conspiracy theories were central to the identities of people who self-identified as anti-vaxxers (who actively mistrust and/or reject the government establishment and science), exemplified by a woman who said, "*I do not trust our government in many, many ways*."

Most people who held this belief tied it to their "faith" in God and politics. A couple who had both had coronavirus, and were ardent Trump supporters, explained, *"We know where we're going when we die. We put our trust in God. There's no fear. I mean, as far as our kids, I think on my part, there was fear. I don't necessarily want them to get it, but I want them to build the immune system towards it. We are very against the mass masking, but I will say when I, especially being from a small town, when I go out to Walmart [where it is mandatory] and stuff, I do."* This was in part because people believed masks were harmful due to ingesting carbon dioxide, or at least used that logic to argue against wearing them. One mother of four said, *"I just think that people are overdoing it. And I think that a mask on a healthy child for 8 h a day could cause some serious health problems and breathing problems and other issues."*

Most of these conspiracy theories were co-generated online and within the local community of anti-vaxxers. Physicians estimate that about 10–15% of families in the school are not vaccinated and therefore would not accept a coronavirus vaccine. Many stated that they "have no fear" and are trying to build up immunity for when they have it. Others said that they are actively trying to get coronavirus in order to build immunity, overcome any inhibition, and move on with their lives. In some cases, people were whispering about how anti-vaxxers were actively causing people harm, such as a nurse and businesswoman who described a well-known anti-vaxxer and business owner, "*Now I know that her daughter was positive, not because I should, but I know enough health care providers in this area that they told me. But yeah that is frustrating to me because, and they think it is a joke, and I saw [woman1's] kids running around in the store and they were positive with no masks on you know."* In doing this, they argue that this involves actively rejecting the fear and hysteria fueled by the media. Some mock mask-wearers and reject any notion of public health guidelines, while others quietly feared exposure of high-risk loved ones.

In the conspiracy frame, with its fixation on freedom and autonomy, a complex portrait of authenticity emerges. On the one hand, these constructions are developed intersubjectively through engagement with conflicting belief structures that give rise to moral compromise. By denying the legitimacy of COVID-19, sponsors of the conspiracy frame interpret their resistance to social conformity as a faithful adherence to self-constructed values and meaning. This is all the more apparent in their opposition to rationalism, in the sociopolitical realm (i.e. Trump supporters), the natural world (i.e. anti-vaxxers), or the spiritual realm (i.e. religious fatalists). On the other hand, a closer reading of our data questions whether conspiracy theorists are genuine in their pursuit of freedom or whether they are engaged in a naïve form of mimicry. Themes of President Trump's truculent worldview are interwoven through these accounts and a penchant for mockery/shaming suggests a desire to impose social conformity. Moreover, conspiracy acknowledges a hegimonic sequence and logic, against which adherents define themselves. In this way, we argue that constructions of social reality embedded within the conspiracy frame simply confer a particular type of identity its sponsors wish to present in everyday life.

4. Discussion

Coronavirus frames constructed in this small Midwestern tourist town demonstrate how and why people think differently about risk, health, and responsibility. These frames illuminate how and why some people expressed *concern* for loved ones, *constraint* due to disruption of their daily lives, *crisis* by way of thinking about collective risk, and *conspiracy* by denying COVID-19's biological basis. These frames are encoded in divergent social values, beliefs, and norms that inform individuals' fears and actions. As such, they explain the cultural basis for collective action, including pandemic response amidst a particularly contentious political climate preceding a national election. In what

follows, we describe why these frames matter and what these frames do.

Sensemaking is a useful construct for thinking about how frames work (Van Hulst and Yanow, 2016). Identity is a central concern of sensemaking, and variable belief structures provide a means of social differentiation (Weick, 1995). For instance, as Table 2 demonstrates, the Conspiracy frame recruits individualist values of liberty, which rejects (disconnection) alternative framings, often leading to further amplification of entrenched beliefs (polarization). Thus, conspiracy framing denies coronavirus as a biological threat and ignores attempts to control its spread. This was not unlike the constraint frame, although dismissal of coronavirus as a legitimate threat is largely due to a higher priority (reconnection) placed on perceptions of its damage due to financial stability or personal growth (security and efficiency), which should be resisted. The concern frame expressed self-preservation, based on values of security and welfare, whereby individuals feared their own infection, or the infection of those in their immediate social network. This creates the means of incorporating a milder version of risk restricted to individual or familial vigilance. The crisis frame expressed ideas of equity and social welfare, irrespective of personal risk, in a way no other frame did; this demonstrates people's willingness to accommodate the full scale of coronavirus as a biological threat and champion measures to halt its spread.

We can make sense of these frames through broader social constructions of culture (Goffman, 1974). Identities are conferred through frames that people draw from cultural orientations within society (see Fig. 2). The preponderance of individualist or tribalist oriented frames perhaps reflects the community's position of seasonal economic productivity, directly perceived to be threatened by coronavirus. Yet, something deeper appears to be at play. The strong anti-government and anti-science sentiments in the American Midwest most likely contribute to a cultural imagery of self-sufficiency (Fraser, 2017) and individualism that was exhibited in the conspiracy frame, revealing the "primacy of personal goals over group goals and the regulation of behavior by personal attitudes rather than social norms" that weakened social distancing and mask use (Bazzi et al., 2020: 2). Bazzi et al. (2020) linked this to "total frontier experience", which may inform the ascendance of the conspiracy frame and, to a lesser extent, the constraint frame. This points to the inadequacy of political orientation as an explanation for behavior, liberals and conservatives co-constructed many of these frames. Given the fact that very few businesses required any type of public health interventions, and no mandates were in place to enforce them, conspiracy, constraint, and concern frames featured prominently in our data. This also demonstrates why, from a pandemic control perspective, these mandates are so crucial (Bergquist et al., 2020). In both the constraint and concern frames, social obligation to comply was often restricted to the self or family, rarely to the broader community.

Table 2
Frames from values to action.

Issue-Defining Frame	Identity (sub-frame)	Social Value/Goal Emphasis (Deep frames)	Framing Mechanisms for coronavirus	Behavioral implications of coronavirus (threat – control)
Conspiracy	Trumpian Anti-vaxxer	Liberty	Polarization, Disconnection	Denial – Ignore
Constraint	Employer Employee RR – Age (Young)	Efficiency, Security	Disconnection, Reconnection	Dismissal – Resistance
Concern	RR – Age (Old) RR – Occupation RR – Health Status	Security, Welfare	Reconnection Incorporation	Endorsement – Vigilance
Crisis	Global Citizen	Welfare, Equity	Accommodation	Amplification – Champion

Moreover, the crisis frame, with its concern for social solidarity and its alignment with public health messaging, featured less regularly. In this way, the rapid emergence and spread of coronavirus is understandable because neither a coherent appreciation of its biological risk nor wide-spread adoption of control measures materialized in this community.

Yet, even within the healthcare community, a plurality of frames led to inconsistent guidance and action. While most healthcare workers advocated for pandemic control measures, others actively dismissed them, advancing conspiracy frames. Given the cultural authority of the medical profession in the United States (Starr, 1982), these beliefs are particularly damaging, and amplify contemporary science-skeptic discourse. Moreover, they polarize debate, leading to entrenched policy positions that are frequently aired in public forums. That science is politicized to this extent within the healthcare community reveals just how deeply mistrust has penetrated the social life of rural America, irrespective of occupation or socioeconomic status.

There are limitations to this study. Our study was restricted to a cross-sectional view of a particular segment of society at a particular time. For example, conspiracy frames were likely more common than we were able to capture; most individuals who distrusted science and government also distrusted research and declined interviews. Moreover, because very few businesses required masking and social distancing—and only one closed down due to two positive covid-19 cases—it is likely that a larger cohort within the constraint frame shared these beliefs. Nevertheless, we believe that the concern frame was prominent because so many people were connected to the hospital, businesses, and school, although we were unable to explore this phenomenon across the wider community.

Our decision to interview only locals (as opposed to tourists) most likely had an impact on our findings. But tourists were transient and self-selected to travel, dine in restaurants, and stay in hotels and resorts; we were interested in the views of locals who stayed primarily in the community. Moreover, because our interviews involved mostly year-round residents, we contend that these findings reflect broader rural Midwestern values. Although, the community's fervent turn toward the economy was most certainly associated with its dependency on tourism, of which locals call "the 100 days of summer"; for many this period provides income for the entire year.

5. Conclusion

This study presents timely analysis of the social basis for the spread of coronavirus in a small midwestern tourist town. This is important because we have demonstrated that communities that appear homogeneous—in this case, rural, white, conservative—are populated by conflicting value structures that present challenges for collective action. The emergence of coronavirus initiated a jarring process of sensemaking which resulted in social differentiation along cultural fault lines. We identified how actors framed the risk and response to coronavirus, coupling belief and action. In so doing, we provide a social rationale for public health mandates to control the spread of pandemics and protect the health and welfare of rural communities.

Funding

No funding to report.

Author statement

ADK conceptualized the manuscript, contributed to analysis, and co-wrote the first draft and revision; EM conceptualized the manuscript, conducted the research, analyzed and wrote up the data, and co-wrote the first draft of the revision; LE contributed to data collection and commented on drafts of the manuscript. AA contributed to data collection and commented on drafts of the manuscript. ZAB contributed to

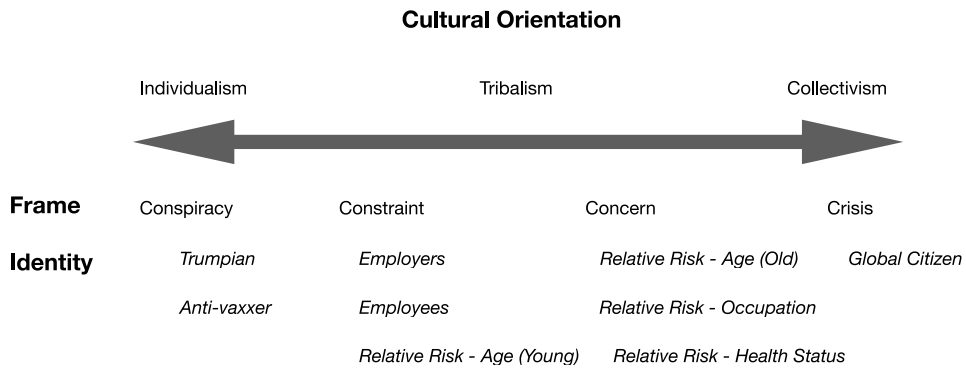

Fig. 2. A Culture of frames.

data collection and commented on drafts of the manuscript.

Declaration of competing interest

We report no conflict of interests.

References

Barton, M.A., Christianson, M., Myers, C.G., Sutcliffe, K., 2020. Resilience in action: leading for resilience in response to COVID-19. BMJ Leader 1–3. https://doi.org/10.1136/leader-2020-000260.

Bateson, G., 1936,1958. Naven, second ed. Stanford University Press, Palo Alto.

Bazzi, S., Fiszbein, M., Gebresilasse, M., 2020. Rugged individualism and collective (in) action during the COVID-19 pandemic. In: NBER Working Paper Series, vol. 5.

Benford, R.D., Snow, D.A., 2000. Framing processes and social movements: an overview and assessment. Annu. Rev. Sociol. 611–639.

Berger, L.P., Luckmann, T., 1967. The Social Construction of Reality. Anchor Books, New York, NY.

Bergquist, S., Otten, T., Sarich, N., 2020. COVID- 19 pandemic in the United States. Health Policy and Technology 9 (4), 623–638. https://doi.org/10.1016/j.hlpt.2020.08.007.

Blumer, H., 1969. Symbolic Interactionism: Perspective and Method. Prentice-Hall Inc, Englewood Cliffs, NJ.

Briggs, C.L., 2005. Communicability, racial discourse, and disease. Annu. Rev. Anthropol. 34, 269–291.

Briggs, C.L., Mantini-Briggs, C., 2003. Stories in the Time of Cholera: Racial Profiling in a Medical Nightmare. University of California Press, Berkeley.

Carter, D.P., May, P.J., 2020. Making sense of the U.S. COVID-19 pandemic response: a policy regime perspective. Adm. Theor. Prax. 42 (2), 265–277. https://doi.org/10.1080/10841806.2020.1758991.

Chong, D., Druckman, J.N., 2007. Framing theory. Annu. Rev. Polit. Sci. 10, 103–126.

Coughlin, E., 2020. Three SC Metropolitan Areas Currently Among Top 30 Hot Spots in America for COVID-19. Retrieved June 16, 2020, from. https://www.wistv.com/2020/06/16/three-sc-metropolitan-areas-currently-among-top-hot-spots-america-covid-/1/8/.

DATAUSA, 2020. Dickinson county. In: Iowa. Retrieved November 9, 2020, from. https://datausa.io/profile/geo/dickinson-county-ia#:~:text=The 5 largest ethnic groups. Hispanic) (0.529%25).

Dewulf, A., Bouwen, R., 2012. Issue framing in conversations for change: discursive interaction strategies for "doing differences. J. Appl. Behav. Sci. 48 (2), 168–193. https://doi.org/10.1177/0021886312438858.

Dzhurova, A., 2020. Symbolic politics and government response to a national emergency: narrating the COVID-19 crisis. Adm. Theor. Prax. 1–17. https://doi.org/10.1080/10841806.2020.1816787.

Eggerman, M., Panter-Brick, C., 2010. Suffering, hope, and entrapment: resilience and cultural values in Afghanistan. Soc. Sci. Med. 71 (1), 71–83. https://doi.org/10.1016/j.socscimed.2010.03.023.

Election Results for Dickinson County, 2020. Iowa. Retrieved November 9, 2020, from. https://electionresults.iowa.gov/IA/Dickinson/106309/web.259135/#/summary.

Entman, R.M., 1993. Framing: toward clarification of a fractured paradigm. J. Commun. 43 (4), 51–58.

Fassin, D., Pandolfi, M., 2010. Contemporary States of Emergency: the Politics of Military and Humanitarian Intervention. Zone Books, Brooklyn.

Foucault, M., 1990. The history of sexuality. In: The Use of Pleasure, vol. 2. Vintage, New York.

Fraser, C., 2017. Prairie Fires: the American Dreams of Laura Ingalls Wilder. Picador, New York.

Garro, L.C., 2011. Enacting ethos, enacting health: realizing health in the everyday life of a California family of Mexican descent. Ethos 39 (3), 300–330. https://doi.org/10.1111/j.1548-1352.2011.01195.x.

Geertz, C., 1973. The Interpretation of Cultures. Basic Books, New York, NY.

Gilson, L., Marchal, B., Ayepong, I., Barasa, E., Dossou, J., George, A., Whyle, E., 2020. What role can health policy and systems research play in supporting responses to COVID-19 that strengthen socially just health systems? Health Pol. Plann. 1–6. https://doi.org/10.1093/heapol/czaa112.

Goffman, E., 1974. Frame Analysis: an Essay on the Organization of Experience. Harvard University Press, Cambridge.

Haidt, J., 2012. The Righteous Mind: Why Good People Are Divided by Politics and Religion. Vintage Books, New York.

Jenkins, Janis., 1991. Anthropology, Expressed Emotion, and Schizophrenia. Ethos 19 (4), 387–431.

Kleinman, A., 2006. What Really Matters: Living a Moral Life amidst Uncertainty and Danger. Oxford University Press, Oxford.

Koon, A.D., Hawkins, B., Mayhew, S.H., 2016. Framing and the health policy process: a scoping review. Health Pol. Plann. 31 (6), 801–816. https://doi.org/10.1093/heapol/czv128.

Lakoff, G., 2006. Thinking Points: Communicating Our American Values and Vision. Book. Farrar, Straus and Giroux, New York.

Office of the Governor, 2020. Gov. Reynolds Signs New Proclamation Continuing the State Public Health Emergency Declaration. Des Moines, Iowa. Retrieved from. https://governor.iowa.gov/press-release/gov-reynolds-signs-new-proclamation-continuing-the-state-public-health-emergency-3.

Owermohle, S., 2020. FDA Warns Alex Jones over False Coronavirus Claims from. https://www.politico.com/news/2020/04/09/fda-warns-alex-jones-over-false-coronavirus-claims-178629. (Accessed 9 November 2020).

Pfannenstiel, B., Coltrain, N., 2020, May 11. Gov. Kim Reynolds Says Iowa Will Loosen Restrictions on the Economy This Week. *Des Moines Register* from. https://www.desmoinesregister.com/story/news/health/2020/05/11/iowa-gov-kim-reynolds-covid-19-coronavirus-data-matrix-maps-reopening/3073063001/.

Re, G., 2020. Coronavirus timeline shows politicians', media's changing rhetoric on risk of pandemic. from. https://www.foxnews.com/politics/from-new-york-to-canada-to-the-white-house-initial-coronavirus-responses-havent-aged-well. (Accessed 9 November 2020).

Schön, D.A., Rein, M., 1994. Frame Reflection: toward the Resolution of Intractable Policy Controversies. Basic Books, New York.

Smith-Morris, C., 2017. Epidemiological placism in public health emergencies: Ebola in two Dallas neighborhoods. Soc. Sci. Med. 179, 106–114. https://doi.org/10.1016/j.socscimed.2017.02.036.

Spitzenstätter, D., Schnell, T., 2020. Effects of mortality awareness on attitudes toward dying and death and meaning in life—a randomized controlled trial. Death Stud. 1–15. https://doi.org/10.1080/07481187.2020.1808737.

Starr, P., 1982. The Social Transformation of American Medicine: the Rise of A Sovereign Profession and the Making of A Vast Industry. Basic Books, New York.

Stephens, K.K., Jahn, J.L.S., Fox, S., Charoensap-Kelly, P., Mitra, R., Sutton, J., Meisenbach, R.J., 2020. Collective sensemaking around COVID-19: experiences, concerns, and agendas for our rapidly changing organizational lives. Manag. Commun. Q. 34 (3), 426–457. https://doi.org/10.1177/0893318920934890.

Van Hulst, M., Yanow, D., 2016. From policy "frames" to "framing": theorizing a more dynamic, political approach. Am. Rev. Publ. Adm. 46 (1), 92–112.

Weick, K.E., 1995. Sensemaking in Organizations. SAGE Publications, Thousand Oaks, CA.

Wills, J., 2020. When Should Iowa Open up the Economy? Dickinson County News. From April 28. https://www.dickinsoncountynews.com/story/2686550.html.

Yanow, D., Schwartz-Shea, P., 2006. Interpretation and Method: Empirical Research Methods and the Interpretive Turn. ME Sharpe Inc, London.