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# Everyday Epistemologies: What People Say About Knowledge and What It Means for Public Deliberation

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## Abstract

Public knowledge presents a persistent problem for democratic deliberation. While especially salient for public participation in technical decision-making, scholars agree that all deliberations are best informed by quality, shared information. But what kind of knowledge is required in deliberation? Can deliberative practices foster requisite learning? Through rhetorical analysis of 20 small-group, public conversations about water policy in Kansas, USA, I sought to describe cultural understandings of public knowledge to inform future research and deliberative practice. Discussants voiced three epistemologies, which I label cognitivist, sociocultural, and behaviorist, each with distinct implications for democracy. I argue that researchers and practitioners should further consider how and when to foreground epistemological assumptions in deliberation. I also question whether facts are the most critical information for community self-determination, and instead argue that deliberators be pushed to openly discuss their values.



## Keywords

public knowledge, public discussion, rhetorical analysis, water, shared values

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## Introduction

Democracy has a knowledge problem, or, as John Dewey (1922/1988, p. 344) observed, public knowledge is the "fundamental difficulty of democracy." For if, as Walter Lippmann (1922, p. 273) asserted, democracy is predicated on a mythical "omnicompetent citizen," how can we expect the public to make quality civic decisions? Worse yet, the increasing complexity of social problems makes most people's personal experience woefully insufficient (Dewey, 1922/1988, p. 338). While agreeing on the problem, Lippmann and Dewey offered different solutions. The former elevated informed experts, while the latter insisted on "fundamental general education," which was "at once so necessary, and so difficult of achievement" (Dewey, 1922/1988, p. 344).

Nearly 100 years later, informing the public seems especially necessary and difficult. Public trust in the news plummeted even before leaders in the United States, Australia, the Philippines, and India made bald threats against independent journalism. Now, officials spreading verifiable falsehoods and dismissing critical stories as fake news are barely newsworthy.[1] Even without elites purposefully misleading, citizens can confuse themselves. For instance, motivated reasoning leads to the incorrect understanding of global warming (Kahan, 2017), while social media distorts the perceptions of heavy users even to the point of inciting violence (Taub & Fisher, 2018).

Because of the fundamental difficulty presented by knowledge to democracy, this article describes opinions about knowledge as expressed by 150 participants in 20 small-group, public discussions about water supply. Through rhetorical criticism of claims, evidence, and arguments, I analyzed what discussants invited listeners to implicitly accept about public knowledge. In doing so, I avoided questions of *what the public needs to know*, and instead sought to uncover *what people think the public needs to know*. The result is a descriptive assessment of current cultural attitudes toward public knowledge and decision-making. The texts studied here concern water scarcity, an increasingly common problem that, like many public dilemmas, is technical, systemic, complex, boundary-spanning, transdisciplinary, and potentially life threatening. Therefore, the analysis offers insights applicable to democratic decision-making on a wide swath of issues.

Specifically, I find that discussants draw on three theories of knowledge as they put forward opinions about what the public needs to know and who needs to know it. That discussants move so freely between different epistemic paradigms suggests that formal and informal deliberators can successfully consider the most appropriate kinds of information in various settings. At the same time, I pose questions about the importance of knowledge as currently conceived, arguing for a more characteristically non-Western relational epistemic as well as open deliberation of community values.

[1] For a current worldwide assessment of press freedom and threats to it from elected leaders, see https://rsf.org/en/rsf-index-2018-hatred-journalism-threatens-democracies.

## Democracy's Knowledge Problem

Since Plato's allegory of the cave, elite assessments of public knowledge have swung between outright distrust, mild misgivings, and cautious optimism. In the United States, the founders expressed inconsistent opinions, alternately arguing that democracy was dangerous because of mass irrationality while also advocating for public education as the chief means of securing a stable republic.[2] By the early 1900s, confidence that persons could thoughtfully consider public affairs beyond their immediate experience had swelled, animating the Chautauqua movement—a popular drive for adult education—and progressive-era reforms (Gastil & Keith, 2005). But by the late 1930s, broadcasting and the propaganda it spread obligated intellectuals to reconcile their democratic desires with the apparent dangers of mass misinformation. Pioneering public-opinion research reassured that people did not unthinkingly accept whatever the radio told them, but in 1952 even prominent behavioral scientist Bernard Berelson (1952, p. 319) wondered, "How can an electorate be expected to be informed on the wide range of issues which confront the modern public?"

The debate continues. Some demonstrate the value of political knowledge by showing its association with desirable traits including voting, tolerance of difference, and holding political opinions (Delli Carpini & Keeter, 1996). Others document the lack of public will to learn about or make political decisions (Hibbing & Theiss-Morse, 2002). Within the study of formal deliberations, public knowledge is mostly presumed to be a necessary component of quality and inclusive decision-making. Indeed, the very deliberativeness of a forum presumably turns on the extent to which it incorporates accurate knowledge of relevant information. That deliberations can increase participant knowing is said to be vital because "knowledge is a prerequisite to offering informed policy input, which may make the input more useful and influential" (PytlikZillig, Hutchens, Muhlberger & Tomkins, 2017, p. 1). Similarly, Niklas Gudowsky and Ulrike Bechtold (2013, p. 1) argue that "providing sound information and respecting the power of information is essential for meaningful outcomes of participatory processes."

And yet, what deliberators can and should know remains elusive. Forums have been demonstrated to improve the quality of deliberation partly through increasing participants' objective knowledge (Fishkin & Luskin, 2005), though other studies question how long such learning lasts and what part of the process, if any, leads to information gains (Muhlberger & Weber, 2006; PytlikZillig et al., 2017). Other studies indicate that certain deliberative qualities must be met for learning to occur, including balanced presentation of competing ideas (Gastil, 2006) and open conflict between interests (Myers, 2018). Scholars also have investigated whether deliberative forums can narrow information gaps between participants, documenting mixed results (Fraile, 2014; Karpowitz, Raphael & Hammond, 2009; PytlikZillig et al., 2017). At least one experiment demonstrated that certain formats *exacerbated* knowledge inequalities (Polletta, Chen & Anderson, 2008).

[2] For example, John Witherspoon (1912, p. 93) wrote that "pure democracy cannot subsist long nor be carried far into the departments of state, it is very subject to caprice and the madness of popular rage." But Thomas Jefferson (1899, p. 161) countered: "I know no safe depository of the ultimate powers of the society but the people themselves, (A)nd if we think them not enlightened enough to exercise their control with a wholesome discretion, the remedy is not to take it from them, but to inform their discretion by education."

Unfortunately, public knowledge is not just unequally distributed and limited, but sometimes dead wrong. Indeed, the spread and resilience of empirically falsifiable beliefs impede informed deliberations. For example, Brendan Nyhan (2010) demonstrates how U.S. elites, given a platform by national media, spread verifiable falsehoods about Democratic health care reforms. In both 1993 and 2009, Republicans who judged themselves well-informed about the respective proposals were *more* likely to believe the incorrect information. Most troubling is that evidence indicates that actual political knowledge does not mitigate these effects, with partisans at high and low levels of objective knowledge equally likely to hold congenial but incorrect beliefs (Reedy, Wells & Gastil, 2014). Apparently, once inaccurate information takes hold, presenting evidence to the contrary makes little difference in what people believe. Perhaps formal deliberations properly structured can stem the tide, but informal public discussions allow social enclaves to entrench themselves more deeply in misinformation (Edy & Risley-Baird, 2016).

Others question how important objective facts are to an informed public (e.g., Burkhalter, Gastil & Kelshaw, 2002). To their point, if full participation is the goal, then feeling confident enough to join the discussion is at least as important as the breadth, depth, or accuracy of one's knowledge. Similarly, knowing others' opinions and why they hold them is valuable, for it not only helps build consensus and trust but also strengthens one's own position. In at least one deliberative setting, participants reported high levels of learning from other participants, although this was documented through self-reports (Gudowsky & Bechtold, 2013).

Still, others argue that the real problem is a Western conception of knowledge as objective and representational. Despite the colloquial understanding of fact as neutral, information has a political dimension too (Ramsey & Wilson, 2009). Particularly in disputes over scientific or technical risks, deliberative structures and discourses privilege knowledge produced via scientific methods while disadvantaging lived experience, community values, and lay voices (Healy, 2009; see also Sauer, 1993). Thanks to "the implicit, structural privilege granted 'facts' and resultant tendency to relegate lay concerns to the marginal status of 'context' and/or 'values', lay people are systemically disenfranchised and disempowered" (Healy, 2009, p. 1652). Even in controversies that do not obviously engage expertise, focusing on facts to the exclusion of values can divert deliberative dialogue from its ultimate purpose: deciding how we shall live (Levine, 2013). If conveners could broaden the definition of important information, then publics and their perspectives could be positioned as a resource rather than a deficit to be filled (Fischer, 2000).

In sum, the scholarship of deliberation takes divergent paths: one track prioritizes quality and equity of knowledge, while the other interrogates what knowledge is and who gets to decide. And yet, the camps are unified by a common question: what ought the public know?

## The Opacity of Civic Knowledge

I suggest momentarily suspending the consideration of this important question. Instead, we might listen to the public, asking: *what do deliberators think the public needs to know*? As Greg Myers (2004) argues, opinion expression is an inherently rhetorical act. Therefore, when speaking their minds in public, discussants account for what listeners will likely accept or reject. Consequently, scholars can analyze expressed opinions to learn about latent cultural presumptions.

Susan Herbst (2001) uses a similar approach when searching for public opinions on the deliberativeness of ordinary citizens. In her reading of *Mr. Smith Goes to Washington*, she finds contradictory attitudes, with the film sometimes suggesting the sagacity of everyday persons while at other moments positing widespread naiveté. In the same way that Herbst reads a cultural artifact to learn members' opinions about democratic capacities, we might listen to public discussions to learn what people take for granted about public knowledge, allowing access to an important cultural story. And as Herbst (2001, p. 455) posits, to ignore culture would be to study "political reality that does not have much basis in reality at all."

Arguably, scholars need a better map of cultural attitudes about knowledge. Historian Richard Hofstadter (1963) famously detailed the American tendency toward anti-intellectualism, tracing its roots to the U.S. preference for privitism, populism, evangelicalism, and material success. Thanks to these influences, he argued, "the plain sense of the common man, especially if tested by success in some demanding line of practical work, is an altogether adequate substitute for, if not actually much superior to, formal knowledge and expertise acquired in the schools" (Hofstadter, 1963, p. 19). For most of US history, Hofstadter argued, the cultural attitude toward formal education was nonthreateningly negative. But as technical specialization became embedded in contemporary life, US culture came to appreciate, grudgingly, the expert:

> What used to be a jocular and usually benign ridicule of intellect and formal training has turned into a malign resentment of the intellectual in his capacity as expert... Once the intellectual was gently ridiculed because he was not needed; now he is fiercely resented because he is needed too much… Intellect is resented as a form of power privilege. (Hofstadter, 1963, p. 34)

Nevertheless, contemporary evidence complicates the story: two-thirds of Americans say that science has mostly a positive impact on society, a percentage that has been stable for almost 35 years (National Science Foundation, 2014). Also, most people say that they admire scientists, granting them higher levels of trust than almost any other professional group (Funk, Hefferon, Kennedy & Johnson, 2019). But public confidence in scientific understanding of some issues, including global warming and GMOs, is low, with only 28 and 19 percent indicating that scientists understand these subjects "very well" (Funk, 2017). To be sure, these responses reflect successful elite framing of science issues as faux controversies (Ceccarelli, 2011). Additionally, ideological conservatives' trust in the scientific community has decreased gradually since the early 1990s, while liberals have maintained moderately positive views.[3] Interestingly, however, not all scientific controversies have become politically polarized. Attitudes about water fluoridation, for example, do not neatly adhere to partisanship or ideology (Kahan, 2013). In sum, public attitudes toward scientific knowing need clarification.

As political elites attack knowledge for ideological and partisan gain (Dorfman, 2017), scholars and practitioners committed to fostering knowledge—whatever its from—need a clear-eyed understanding of what people value regarding it. In other words, positivist and interpretive approaches to public deliberation share a common foe: polluters of our information environments (Kahan, 2017). At a time when the contaminators seem particularly active, public deliberation

[3] See Matthew Motta (2018) for a full review, as well as empirical evidence that public attitudes toward science and scientists are related to political attitudes and policy preferences.

needs a more thorough understanding of cultural presumptions about public knowledge. For example, within social groups, cultures, subcultures, publics, counterpublics, parties, or deliberative circles, what counts as knowledge? What kinds of knowledge are most prized: technical information of specialized fields or broad understanding of human experience? And where is knowledge thought to reside: in community norms or in the formal methods of trained observers? Such queries would help establish a richer, more accurate understanding of current *doxa* on knowledge.

## Case and Method: Kansas Water Conversations

Toward this end, I analyzed a series of community conversations about water use in Kansas. Around the globe, but especially in the western United States, water presents itself as the most immediate and critical natural resources issue (Sanderson & Frey, 2014). Western Kansas, for example, relies on fossil water from the Ogallala Aquifer for industry, agriculture, and municipal use. The Kansas Geological Survey estimates that most of the aquifer has a usable lifetime of less than 50 years, with broad sections of the deposit to be functionally gone in less than 20 years (Buchanan, Wilson, Buddemeier & Butler, 2015). Central and eastern Kansans face water problems, too. Here, state and federal reservoirs supply water, but holding capacity has been significantly compromised by siltation from soil erosion. In both cases, questions of water supply involve technical issues of climatology, hydrology, engineering, and economics.

With these topics in mind, in October 2013, the administration of Governor Sam Brownback initiated development of a 50-year water plan. The process included a series of public meetings that were framed as information-gathering sessions. As then Kansas Secretary of Agriculture Jackie McClaskey told those assembled in Salina, Kansas, the administration wanted to hear from "average Kansans," because they "have good ideas." From February to April 2015, I attended eight of these meetings held in different Kansas towns. Publicized in local and state media, the meetings drew between 30 to 100 people each and included a range of interests. Some participants represented environmental concerns but most self-identified as farmers, irrigators, or trade-association members. Also in attendance were municipal waterworks professionals, staff and board members of conservation districts, rural water association members, and university and extension experts.

All meetings opened with a welcome from a state official and a technical debriefing from a state staffer. The technical updates addressed local conditions. After the welcome and briefing, trained facilitators led a group process, asking participants to work in small groups. Transcripts from 20 of these small-group dialogues served as the texts for this study. Each set of eight to ten participants discussed four questions about water supply in their region. Conveners at all sites included the following query: "What role should water conservation and public education play in meeting future needs?" I focused exclusively on responses to this question.

While a questionnaire would be more suitable for determining what people know about a given topic (Tourangeau, Maitland & Yan, 2016), I instead read the transcripts to uncover the informal theories on which discussants drew as they made claims and forwarded arguments. Language in-use reveals what speakers take for granted as true, hold most dear, and reject out of hand. As does Chris Blackmore (2007), I argue that addressing assumptions about learning and knowledge will help us discover what we still need to know. Therefore, I reviewed the transcripts repeatedly,

looking for explicit and implicit answers to the following questions: What does the public need to know? What kind of knowledge is said to be existing or lacking in the minds of others, and to what consequence? Are classes or persons identified as being especially knowledgeable or uninformed, and if so, why and to what end? Ultimately, I sought to identify and describe the everyday epistemologies informing public talk.

## Common Knowledge on Public Knowledge

From the transcripts, three distinct theories of knowledge can be heard. Unsurprisingly, discussants do not explicitly state their views on the nature of knowledge. But as they indicate *what* the public needs to know as well as *who* needs to know it, they reveal cognitivist, sociocultural, and behaviorist perspectives, each with its own way of thinking about human behavior, social action, and how difficult decisions ought to be made.

### Cognitivist Knowledge

Gudowsky and Bechtold (2013, p. 5) review several typologies of knowledge relevant to participatory processes. Some categorize by kind (e.g., scientific, experiential, and normative) and others by use (i.e., determine problem scope versus solve problem). In contrast, participants in the Kansas water discussions adopt a form-follows-function approach.

For example, a participant in Beloit explains his work on educational tours with a litany of how-tos: "You can say things like you don't need to run the water all the time when you're brushing your teeth… You know, just different things like what do you do with used oil." Others call for specific information tailored to particular audiences, as when a participant in Salina states that farmers ought to be "governed by the latest water usage research and crop selection. Alternative crops that use less water and, you know, maximizing water efficiency." Similarly, another participant in Beloit sees a "need to educate farmers on when to water and how much to put on as a conservation tool and use pre-watering… so you're not all pumping at the same time and pumping from the same part [of the aquifer]." In all three examples, participants indicate that the public needs discrete facts to make environmentally sound decisions: the most efficient time to irrigate, where to properly dispose used oil, and how much one can save by turning off the tap.

We might label this implicit theory of knowledge cognitivist, emphasizing as it does a certain kind of knowledge—usually objective and technical—as a necessary condition for appropriate behavior. As a speaker in Beloit states, "Well my opinion is you educate people. They're going to conserve when they're aware of what the problem is. They will come to the conclusion then." While the participant identifies her view as an opinion, her matter-of-fact style suggests that her belief is based on sincere and thorough reflections. While cognitivism does not always claim such a direct, causal relationship between knowledge and action, it does presume, as does this speaker, that when properly informed, people will act as they should.

Consequently, the cognitivist theory emphasizes learning, with the educator holding unique power and responsibility. As a participant in Goodland summarizes, "Conservation has to play an important role, but to get good conservation there has to be education. These two things are like this," with his fingers crossed, illustrating the relationship between knowing and doing. Cognitivism thereby offers hope in knowing, because knowing is what leads to right action. As a

Hiawatha participant concludes, “You don’t teach them, they’re not going to change it.” Without someone informing the public, he essentially asks, how can we expect persons to *do* if they do not *know*?

In keeping with the cognitivist philosophy, information ought to be targeted at those whose actions have the greatest impact. As one participant in Ottawa puts it, “Industries have to have a water conservation program because they are the heaviest users outside of municipalities.” Like marketing messages, information is best targeted based on the audience’s ability to make a difference. Similarly, agriculturalists are at times singled out for special educational consideration. As another Ottawa participant says:

> Public education is very important but the general public isn’t contributing the majority of the sediment. It’s the [agricultural] producers right around the reservoirs farming up to them. That’s kind of, if you’re calling the farmers the public then yes 100%, but I think you could even focus your education more toward the [agricultural] producers that are right around the watershed.

The speaker indicates an unwillingness to totally abandon mass messaging, for “public education is very important.” In contrast, another participant in Ottawa indicates that scattershot communication is misdirected: “We can talk about [educating] these kids and save them some water and stuff but we need to look at these big industries and say, ‘Here’s an expert that can save 45% of your water, you need to look at this.’” We might imagine the preceding participant in the next breath pleading that “the stakes are too high, and time is too short. We’ve got to educate those who are doing the most damage.”

**Sociocultural Knowledge**

Participants also voice a second epistemology of public knowing, one that de-emphasizes facts and individual action while placing a premium on relationships and experiences. Several speakers, for example, advocate for public understanding of the entire water system, as did this participant in Ottawa:

> Participant: I think that probably the most important thing… is that the public needs to know every aspect of what we’re talking about. They need to realize it’s almost—there’s a lot of people trying to use a lot of water and so it breaks down to you got people who need it for drinking or cleaning and so on and so forth. You got agriculture that needs it for producing crops and then we have a recreation side to it now; it’s being used for recreation. I think people need to know all of those clearly.
>
> Facilitator: So public awareness?
>
> Participant: Absolutely—that it’s not just your issue. There’s multiple issues at play here. I would also make sure wildlife is included in that.

Likewise, a speaker in Beloit notes that “from western Kansas to eastern Kansas there’s a lot of difference in what conservation means.” Consequently, educating the people “would be two totally different things for somebody in an urban setting versus someone in a rural, irrigated setting because they’ll look at the total gallons used and say that’s an awful lot of water used” compared

to "their personal needs." Another Beloit participant goes further, advocating for education that supports his preferred policy outcome: "We can't ignore the fact [that] agriculture consumes 85% of the water. People need to understand the economic impact that has on the economy and the jobs that it brings. That has to be part of the education."

Ironically, these participants want different outcomes, with the Ottawa attendee seeking to curtail agricultural use and Beloit speakers defending it. But all three participants imply that the public needs to know about experiences beyond their own and the relationships between actors and actions. As the participant from Beloit continues, "People need to understand what the difference is between the different roles of the different water uses." A knowledgeable public, then, sees more than the facts relevant to personal behavior, also learning about a web of ecological and social effects.

In addition to knowledge type, the sociocultural perspective thinks differently about who needs to know: everyone does. As a participant from Goodland argues, "The public needs to be aware of what's going on. It's not all a farming thing, it's a general-public thing. This water belongs to all of us and we need to take care of it." Similarly, the following participant from Erie expresses a democratic attitude toward public knowledge: "No matter what the plan is, the public has to buy into it for it to work. The only way you're going to get that is to educate Joe Blow about water conservation and why we need to do this." Notably, both comments connect public knowledge with democratic legitimacy: the public has a right and a responsibility to address the water problem, where "awareness" becomes the conduit for achieving action.

Even when a specific audience is said to need education, the sociocultural perspective makes the case based on a democratic ideal of shared civic duty. In the following exchange at the Beloit meeting, participants distinguish themselves—highly informed and invested farmers—from the out-group that needs education:

> Facilitator: What about other areas of the public?
>
> Participant A: I think we need a lot of effort in the public education area because there's going to be more and more pressure to change things that we've seen done over the years coming from this part of the world—urban is kind of an oxymoron [in Kansas], but from people who don't have an invested interest in what happens to these waters…
>
> Participant B: I think there should be a lot more education as far as the urban areas. Rural areas are already doing a number of things to try and cut back so that way they realize that there's a number of things we have done in the past and we are still maintaining these certain things, you know, like your waterways and terraces and so on. There's just constant things the rural [areas] are trying to make better. I don't think the urban areas know that or realize that.

A third participant from Beloit in a different small group expresses a more conspiratorial view of attitudes among the nonfarming public: "There are a lot of radicals out there putting out false information but they have the money behind them and they want to continue because that's how they are getting paid." Manifestly, these speakers offer negative assessments of the current state of public knowledge, with the out-group being misinformed thanks to its apathy or self-serving

activists who exploit its naiveté. But ultimately, all of them voice the same epistemological presumption: knowledge is a vital resource for self-governance. In this way, the cognitivist and sociocultural approaches each emphasize the value of knowledge, but who needs to know and why differ rather drastically. The former accentuates the individuals whose actions can most significantly contribute to progress, while the latter stresses the *demos* and its authority.

The cognitive versus sociocultural split mirrors a long-recognized discursive divide, with those seeking systemic change thwarted by the privileging of private action.[4] But in public talk, cognitive and sociocultural discourses are sometimes indistinct. A participant in Hiawatha, for example, implicitly draws on both, indicating that the public ought to know certain objective facts to appreciate our shared challenge:

> There's 125,000 people in this region and 100 people show up to talk about the need of water? To me that shows they don't quite understand that the population [will be] about 12 billion people in 50 years, a 50 percent increase, and we've got the same amount of water now that they had when dinosaurs were here and will have the same amount in 50 years. People got to understand that this is an issue.

Similarly, a participant in Manhattan complains that public opinion is incongruous:

> I was doing a meeting Saturday on water, talking about advances in irrigation technology, but one lady got up and she thought dredging John Redmond [reservoir] was really great because you had to keep the nuclear power plant going and didn't worry about costs there, and then she cut to possibly using Missouri [River] water. And of course, all she saw was the $18 billion projected cost of the Kansas aqueduct. But if you do the math on that, $18 billion divided by 4-million-acre foot is cheaper than the Manhattan water rate.

In keeping with cognitivism, this participant seeks a more rational public—one that thinks about costs versus benefits rather than evaluating projects based on an illogical aversion to big numbers. But he also implies that proper application of accurate empirical information will lead to the correct collective action on a systemic problem. In this way, participants draw on both theories about the nature of knowledge, implying that smart civic thinking requires both.

**Behaviorist Knowledge**

In contrast, a third view implicitly indicates that what the public knows matters little because knowing is unreliably connected to behavior. A conversational thread at the Hiawatha meeting illustrates this philosophy. Participants begin with banter about atrazine contamination in water, whether federally determined maximum loads are truly safe, and the incomprehensibility of official water reports. One participant draws the discussion to a close, thusly:

[4] In an environmental context, see for example Pieter Maeseele, Daniëlle Raeijmaekers, Laurens Van der Steen, Robin Reul, and Steve Paulussen (2017).

> … we can't control what our neighbors do and that's the hard part. We can only control what we do and our impact. So we have to try to work with our neighbors and educate them and try to change their impact. Some people you can't, though. It's hard. In our day and age we have technology and sciences to think of better ways to help our problem.

The speaker wants her listeners to know that she has not completely given up on the public, for "we have to try to work with our neighbors and educate them," but in the end, for some people, "you can't." Thankfully, she asserts, we have "technology and sciences," not the civic sphere, "to think of better ways" to live on earth together.

Likewise, another Hiawatha participant stops short of saying that his neighbors cannot learn, but he advocates for alternative measures: "If you're not going to be a good steward yourself, then you have to have some type of enforcement or incentive. Just knowing isn't enough for everybody." As another participant in Hiawatha says about nitrate contamination, "A lot of farmers like to be in denial about that."

Such a behaviorist theory downplays the value of knowing and presumes social change must be promoted via other means. As a participant from Salina argues,

> Water conservation is important, education is important, [but] neither is sufficient to address the problem of having water in the future. The only thing that will ensure water in the future is that they don't use water more quickly than it's replaced.

From the behaviorist perspective, knowing is fine but carrots and sticks foster change. As the same participant concludes, "While conservation and education are useful, policy and regulation are probably the only tools that will actually get the job done."

Consequently, the behaviorist connects knowing with neither voluntary personal behaviors nor civic action, but with influences that provoke action involuntarily. Notice, for example, how the following participant from Beloit argues for educating others because his people know enough. While confusing on its face, a comment such as this makes sense considering the behaviorist perspective:

> Participant: As a whole area we've been pretty well educated of the dos and don'ts of what's going to happen down the road if we don't do anything.
>
> Facilitator: When you say we, are you talking about a specific group of people?
>
> Participant: I come from the farm, irrigators, basically the irrigation standpoint. We've been pretty well regulated and that's probably good in the long run.

Initially the participant could be presumed to be an advocate of conservation education since people in his world have been "pretty well educated" and "that's probably good." But when asked to clarify his position, the speaker makes a meaningful shift, from "pretty well educated" to "pretty well regulated." Here, regulated means legal limits on when and how much water farmers may pump for crop irrigation. The substitution of "regulated" for "educated" could have been a slip of the tongue, but the speaker makes no attempt to correct himself, indicating that he assumes the audience will understand the substitution. Qualifying his assessment with "probably" and "in the

long run" specifies that the thing, be it education or regulation, is harsh medicine—something that produces change not because persons know they should but because they hurt.

To be clear, no one in the transcripts says that knowledge and learning are pointless. Indeed, such a sentiment would be out of place at a community meeting, where people tacitly gather to learn from one another. Even the forceful Salina voice quoted above, advocating for "policy and regulation" includes the qualifier "probably" in his comments, leaving open the possibility that knowledge might make a meaningful difference. But overall, the voice of behaviorism suggests it would be naive to expect people to do the right thing based on what they know. As a Hiawatha educator testifies, "I taught school for 30 some years and you can teach all you want to but that doesn't mean anything's going to happen so you need to have positive incentives at all levels for [agricultural], for people in town."

## Different Assumptions, Same Conversations

This analysis sought to learn what discussants assumed about the nature of knowledge, its status in the civic realm, and its relationship to personal and social action. My reading reveals conflicting, even contradictory theories in play. For example, in just three conversational moves at the Erie meeting, the cognitivist, sociocultural, and behaviorist worldviews can be observed, respectively:

> Speaker A: I think conservation should play a large role, but to have conservation is to educate first because you need them to understand why they need to conserve water before they're going to.
>
> Speaker B: For those of us who grew up in western Kansas, I understood conserving water for a long time.
>
> Speaker C: You tell them they need to slow down on their water usage they're just going to be like, no. In one ear and out the other.

Each speaker offers qualitatively different assessments of what others ought to know and, consequently, how they will behave. In the flow of face-to-face conversation, discussants rarely parse each other's claims. Only upon closer inspection do we notice the incommensurability of these statements. This does not mean that discussants are irrational. Rather, participants draw on a range of culturally acceptable ideas about what knowledge is and how people use it.

Nevertheless, this analysis also raises difficult questions for deliberation since all three theories are potentially persuasive but each assigns a different value and role to public participation. To my point, the cognitivist position requires specialists to disseminate knowledge but grants ultimate responsibility to individuals whose behaviors must change. Civic deliberation thereby becomes moot, with technocratic experts and strategic communication supplanting democratic decision-making (Swyngedouw, 2005). In contrast, the sociocultural model calls for the public to be knowledge about community problems. But in the case of technical topics, can the public be expected to learn the right things? Meanwhile, the behaviorist calls into question the wisdom of intentional, inclusive efforts to foster progressive change.

Therefore, practitioners and scholars must consider the influence of these everyday theories on deliberation. For example, in some instances, facilitators might foreground divergent perspectives

on knowledge and action. In the same way that a National Issues Forum guide presents options for approaching a topic, participants could then reflect on which knowledge theory and its trade-offs seem most appropriate. Likewise, we might consider the best practices for encouraging one orientation over the other, depending on the context of the discussion, for not every public meeting can or should be deliberative, with some necessarily emphasizing dissemination of objective knowledge to shape community behavior. On the other hand, much like experts who hijack deliberations (Sprain, Carcasson & Merolla, 2013), some participants might be marginalizing ideas or contributors by presuming one's sense of knowledge (cognitive or behavioral) over another (sociocultural). No matter the scenario, reflecting on what is taken for granted about knowledge would likely improve dialogue in civic spaces.

Regarding behaviorism specifically, it seems incompatible with democratic decision-making, given its lack of Deweyan faith in public education for progress. But examples of successful Lippmann-like social policies are legion, from seat belt laws to air pollution limits to the personal mortgage deduction. On the local level, small groups of Kansas farmers have deliberated on expert information and corporately decided to impose on themselves irrigation limits (Dillon, 2018). My analysis indicates that other Kansans, too, indirectly accept a need for democratic decision-making, expert authority, *and* compulsory regulation. Finding the right balance is crucial and, therefore, scholars ought to further investigate.

**What Counts as Community Knowledge?**

We might be heartened that both the cognitivist and sociocultural approaches can be heard in these conversations, indicating a need for personal and collective action. However, there are at least two conspicuous absences in the transcripts, posing concerns for deliberative democracy.

First, discussants speak of knowledge as created and held exclusively by individuals. The three epistemic perspectives envision different kinds of knowledge, but all indicate that it is revealed through individual endeavor, not collaborative engagement or collective reflection. Certainly, some classes of people are said to have the same understanding because of their similar experiences. For example, western Kansans appreciate the importance of conserving water in a way that others do not. But beyond these few instances of shared experience, there is no talk of knowledge as community construction, neither in the sense of aggregated thoughts producing a superior public opinion (Landemore, 2012) nor as an emergent product of shared discussion or work (Levine, 2013).

That Kansans would fail to speak of knowledge in this way is perhaps unsurprising. But among cultures of the Global South, "moral status is constituted by some kind of interactive property between one entity and another," standing "'in between' individualism and holism" (Metz, 2014, p. 148). Drawing on this cultural account, Leyla Tavernaro-Haidarian (2018) suggests a deliberative epistemology based on the Sub-Saharan concept of relationality associated with ubuntu. It offers a "lens through which knowledge has been defined as the essence of experience after communal discourse about its meaning. In other words, knowledge is generated and justified through communal discourse and through the cultivation of relations with others" (Tavernaro-Haidarian, 2018, p. 230). Such a way of knowing is consensual but not conformist, as "seemingly contradictory truths can emerge because everyone adds their own voice" to the understanding produced via talk (Tavernaro-Haidarian, 2018, p. 230). Therefore, through an "integrative yet

emancipatory lens, horizontal and vertical ways of knowing can be reconciled" (Tavernaro-Haidarian, 2018, p. 230).

Thinking about knowledge as created and held in common, rather than as personal property, could encourage decision-making that maximizes not individual nor corporate welfares but relational interests. Indeed, a relational framing "derives from recognition of humanity's increasing global interdependence" (Karlberg, 2012, p. 15), as well as the mutuality of human and nonhuman elements of the environment. In contrast, Western liberal epistemology invites deliberators, as individuals, to discover an ideal solution. But there is no correct answer to wicked problems such as water scarcity, which can only be ameliorated through the melding of technical and experiential knowledge in a way consistent with the community's understanding of what matters most. As others have argued, "there is weighty evidence that non-Western relational approaches… have something substantial to contribute to contemporary controversies" (Metz, 2014, p. 146). However, this study is limited by my training in Western theories and methods, as well as my Western cultural biases. Therefore, future investigations must consider cultural attitudes from non-Western perspectives, which could yield productive insights for deliberators everywhere.

Second, the analysis produced no clear evidence that participants spoke about shared values as relevant knowledge. The behaviorist orientation comes closest by advocating for harnessing self-interest to promote conservation. But when asked about the role of public education and information, there was no manifest consideration of what participants cared most deeply about or what standards Kansans ought to hold each other accountable.

The only obvious entertainment of community values occurs early in each meeting, when officials explain that water planning is meant to advance economic interests of the state and its inhabitants. This value orientation, as well its alternatives, go unconsidered in the small groups. Therefore, the discussions make almost no contribution to the work of community building, a necessary component of any civic action. As David Procter (2005, p. 142) asserts upon the completion of 14 years of research on community collaborations, "for [a] community to exist, there needs to be not only a concern for individuals at the humane level, but also some level of value agreement among people." Indeed, Procter (2005, p. 146) identifies value contestation and reification as the primary rhetorical task of community building events: "Much of the talk during moments of civic communion is either contested discussion or moments of celebration of history, values, and political ideals important to a town's existence."

Perhaps shared values seemed less germane in these conversations because the topic was water rather than communities per se. Nevertheless, the literal existence of a human community in much of western Kansas depends on the Ogallala Aquifer. Alternately, and as a behaviorist might attest, humans famously avoid discomfort, and open discussion of values might risk face threats thought out of place in public dialogue (Black & Wiederhold, 2014). Whatever the reason, the lack of overt consideration of shared values when talk turns to public information and education invites listeners to conclude that (1) persons do not need to hold common values or (2) they already do. Neither assumption is safe.

In the Kansas case, polling indicates significant agreement on what priorities ought to drive water policy (Lauer et al., 2018). But unless people have a chance to hear from each other what they hold dear and why, the narrow interests of issue publics are more likely to shape policy than those of

the majority. As James Fishkin (2009, pp. 107-108) observes, "If we are to understand competing arguments we need to talk to diverse others and to understand their concerns and values from their own points of view." Put differently, there is value in hearing all sides—not simply in gaining information but also in developing a shared sense of what is best for the community. Both types of knowledge are needed in democratic decision-making, particularly when topics turn technical. For while experts hold vital information, they cannot "provide the values and goals to determine a policy" nor substitute their "judgments about what is… desirable" (Fishkin, 2009, p. 104).

To prevent such a substitution, forums likely need to intentionally promote explicit consideration of community values. For example, models such as Deliberative Polling enhance public spiritedness. But even Deliberative Polling, which demonstrably increases concern for the common good, is not designed to help the collective construct or modify its joint values. Deliberative scholars and practitioners, therefore, should investigate the potential of various models to encourage communities to build consensus around values. As Peter Levine (2013) posits, civic renewal requires attention to facts, values, and strategies. Even when talk overtly considers facts and strategies, values are implied. Undoubtedly, open public discussion of values can make for emotionally wrenching and unpredictable interactions, surfacing disagreements over presumed ideals, failures in living up to ideals, or injustices perpetuated because of ideals. Despite the risks, community conversations are an imperfect but needed space for building better knowledge of who communities are and wish to become.

No matter which epistemological perspective is discursively privileged in a community conversation, different types of knowledge are needed to fully understand issues, build common commitments, and act corporately. Our challenge as scholars and practitioners, then, is to encourage honest and even contentious consideration of values. For until Kansans can agree on *what and who the water is for,* talk about common action will be only that.

Finally, this analysis prompts reassessment of democracy's knowledge problem as its most fundamental. As disturbing as an elite war on knowledge might be, the transcripts studied here demonstrate firm public commitment to knowledge of a certain kind. But without open consideration of pluralistic ideals and conflicting social identities, deliberative democracy's prospects remain unclear. Through deliberation, can people find enough similarity to work together but not so much to violate human autonomy? How can deliberative democracy honestly address inequities of current social arrangements? Such vital questions keep us in the knowledge business.

## References

Berelson, B. (1952). Democratic theory and public opinion. *The Public Opinion Quarterly, 16*(3), 313-330.

Black, L. W., & Wiederhold, A. (2014). Discursive strategies of civil disagreement in public dialogue groups. *Journal of Applied Communication Research, 42*(3), 285-306.

Blackmore, C. (2007). What kinds of knowledge, knowing and learning are required for addressing resource dilemmas?: A theoretical overview. *Environmental Science & Policy, 10*(6), 512-525.

Buchanan, R. C., Wilson, B. B., Buddemeier, R. R., & Butler, J. (2015). *The High Plains aquifer*. Retrieved from http://www.kgs.ku.edu/Publications/pic18/PIC18R2.pdf

Burkhalter, S., Gastil, J., & Kelshaw, T. (2002). A conceptual definition and theoretical model of public deliberation in small face-to-face groups. *Communication Theory, 12*(4), 398-422.

Ceccarelli, L. (2011). Manufactured scientific controversy: Science, rhetoric, and public debate. *Rhetoric & Public Affairs, 14*, 195-228.

Delli Carpini, M. X., & Keeter, S. (1996). *What Americans know about politics and why it matters.* New Haven, CT: Yale University Press.

Dewey, J. (1922/1988). Public opinion [Review]. In J. A. Boydston (Ed.), *The middle works of John Dewey, Volume 13, 1899-1924: 1921-1922, Essays on philosophy, education, and the Orient* (pp. 337-344). Carbondale, IL: Southern Illinois University Press.

Dillon, K. (2018, August 13). In dealing with the Ogallala aquifer, Western Kansas is running out of water and time. *The Kansas Leadership Center Journal*. Retrieved from https://klcjournal.com/in-dealing-with-the-ogallala-aquifer-western-kansas-is-running-out-of-water-and-time/

Dorfman, A. (2017, October 12). Trump's war on knowledge. *NYR Daily*. Retrieved from https://www.nybooks.com/daily/2017/10/12/trumps-war-on-knowledge/

Edy, J. A., & Risley-Baird, E. E. (2016). Rumor communities: The social dimensions of internet political misperceptions. *Social Science Quarterly, 97*(3), 588-602.

Fischer, F. (2000). *Citizens, experts, and the environment: The politics of local knowledge.* Durham, NC: Duke University Press.

Fishkin, J. S. (2009). *When the people speak: Deliberative democracy and public consultation.* Oxford, UK: Oxford University Press USA.

Fishkin, J. S., & Luskin, R. C. (2005). Experimenting with a democratic ideal: Deliberative polling and public opinion. *Acta Politica, 40*(3), 284-298.

Fraile, M. (2014). Does deliberation contribute to decreasing the gender gap in knowledge? *European Union Politics, 15*(3), 372-388.

Funk, C. (2017, December 8). Mixed messages about public trust in science. *Pew Research Center for the People & the Press*. Retrieved from http://www.pewinternet.org/2017/12/08/mixed-messages-about-public-trust-in-science

Funk, C., Hefferon, M., Kennedy, B., & Johnson, C. (2019, August 2). Trust and mistrust in American's views of scientific experts. *Pew Research Center*. Retrieved from https://www.pewresearch.org/science/wp-content/uploads/sites/16/2019/08/PS_08.02.19_trust.in_.scientists_FULLREPORT_8.5.19.pdf

Gastil, J. (2006). How balanced discussion shapes knowledge, public perceptions, and attitudes: A case study of deliberation on the Los Alamos National Laboratory. *Journal of Public Deliberation, 2*(1), Article 4.

Gastil, J., & Keith, W. M. (2005). A nation that (sometimes) likes to talk. In J. Gastil & P. Levine (Eds.), *The deliberative democracy handbook: Strategies for effective civic engagement in the twenty-first century* (pp. 3-19). San Francisco, CA: Jossey-Bass.

Gudowsky, N., & Bechtold, U. (2013). The role of information in public participation. *Journal of Public Deliberation, 9*(1), Article 3.

Healy, S. (2009). Toward an epistemology of public participation. *Journal of Environmental Management, 90*(4), 1644-1654.

Herbst, S. (2001). Public opinion infrastructures: Meanings, measures, media. *Political Communication, 18*(4), 451-464.

Hibbing, J. R., & Theiss-Morse, E. (2002). *Stealth democracy: Americans' beliefs about how government should work.* New York, NY: Cambridge University Press.

Hofstadter, R. (1963). *Anti-intellectualism in American life.* New York, NY: Vintage Books.

Jefferson, T. (1899). To William Charles Jarvis. In P. L. Ford (Ed.), *The writings of Thomas Jefferson, Volume 10* (pp. 160-161). New York, NY: G.P. Putnam's.

Kahan, D. (2013). Ideology, motivated reasoning, and cognitive reflection. *Judgment and Decision Making, 8*(4), 407-424.

Kahan, D. (2017). On the sources of ordinary science knowledge and extrodinary science ignorance. In K. H. Jamieson, D. Kahan & D. A. Scheufele (Eds.), *The Oxford handbook of the science of science communication* (pp. 35-69). New York, NY: Oxford University Press.

Karlberg, M. (2012). Reframing public discourses for peace and justice. In K. Korostelina (Ed.), *Forming a culture of peace: Reframing narratives of intergroup relations, equity, and justice* (pp. 15-42). London, UK: Palgrave Macmillan.

Karpowitz, C. F., Raphael, C., & Hammond, A. S. (2009). Deliberative democracy and inequality: Two cheers for enclave deliberation among the disempowered. *Politics & Society, 37*(4), 576-615.

Landemore, H. E. (2012). Why the many are smarter than the few and why it matters. *Journal of Public Deliberation, 8*(1), Article 7.

Lauer, S., Sanderson, M., Manning, D., Suter, J., Hrozencik, R., Guerrero, B., & Golden, B. (2018). Values and groundwater management in the Ogallala aquifer region. *Journal of Soil and Water Conservation, 73*(5), 593-600.

Levine, P. (2013). *We are the ones we have been waiting for: The promise of civic renewal in America.* New York, NY: Oxford University Press.

Lippmann, W. (1922). *Public opinion.* New York, NY: Harcourt, Brace and Company.

Maeseele, P., Raeijmaekers, D., Van der Steen, L., Reul, R., & Paulussen, S. (2017). In Flanders fields: De/politicization and democratic debate on a GM potato field trial controversy in news media. *Environmental Communication, 11*(2), 166-183.

Metz, T. (2014). Harmonizing global ethics in the future: A proposal to add South and East to West. *Journal of Global Ethics, 10*(2), 146-155.

Motta, M. (2018). The dynamics and political implications of anti-intellectualism in the United States. *American Politics Research, 46*(3), 465-498.

Muhlberger, P., & Weber, L. M. (2006). Lessons from the virtual agora project: The effects of agency, identity, information, and deliberation on political knowledge. *Journal of Public Deliberation, 2*(1), Article 13.

Myers, C. D. (2018). Political deliberation, interest conflict, and the common knowledge effect. *Journal of Public Deliberation, 14*(1), Article 6.

Myers, G. (2004). *Matters of opinion: Talking about public issues.* Cambridge, UK: Cambridge University Press.

National Science Foundation. (2014). *Science and engineering indicators 2014.* Retrieved from https://www.nsf.gov/statistics/seind14/

Nyhan, B. (2010). Why the "death panel" myth wouldn't die: Misinformation in the health care reform debate. *The Forum, 8*(1), Article 5.

Polletta, F., Chen, P. C. B., & Anderson, C. (2008). Is information good for deliberation? Link-posting in an online forum. *Journal of Public Deliberation, 5*(1), Article 2.

Procter, D. E. (2005). *Civic communion: The rhetoric of community building.* Lanham, MD: Rowman & Littlefield.

PytlikZillig, L. M., Hutchens, M. J., Muhlberger, P., & Tomkins, A. J. (2017). Prompting deliberation about nanotechnology: Information, instruction, and discussion effects on individual engagement and knowledge. *Journal of Public Deliberation, 13*(2), Article 2.

Ramsey, K. S., & Wilson, M. W. (2009). Rethinking the ‘informed’ participant: Precautions and recommendations for the design of online deliberation. In T. Davies & S. P. Gangadharan (Eds.), *Online deliberation: Design, research, and practice* (pp. 309-316). Stanford, CA: Center for the Study of Language and Information.

Reedy, J., Wells, C., & Gastil, J. (2014). How voters become misinformed: An investigation of the emergence and consequences of false factual beliefs. *Social Science Quarterly, 95*(5), 1399-1418.

Sanderson, M. R., & Frey, R. S. (2014). From desert to breadbasket… to desert again? A metabolic rift in the High Plains aquifer. *Journal of Political Ecology, 21,* 516-532.

Sauer, B. A. (1993). Sense and sensibility in technical documentation. *Journal of Business & Technical Communication, 7*(1), 63-83.

Sprain, L., Carcasson, M., & Merolla, A. J. (2013). Utilizing "on tap" experts in deliberative forums: Implications for design. *Journal of Applied Communication Research, 42*(2), 150-167.

Swyngedouw, E. (2005). Governance innovation and the citizen: The Janus face of governance-beyond-the-state. *Urban Studies, 42*(11), 1991-2006.

Taub, A., & Fisher, M. (2018, August 21). Facebook fueled anti-refugee attacks in Germany, new research suggests. *The New York Times*. Retrieved from https://www.nytimes.com/2018/08/21/world/europe/facebook-refugee-attacks-germany.html

Tavernaro-Haidarian, L. (2018). Deliberative epistemology: Towards an ubuntu-based epistemology that accounts for *a priori* knowledge and objective truth. *South African Journal of Philosophy, 37*(2), 229-242.

Tourangeau, R., Maitland, A., & Yan, H. Y. (2016). Assessing the scientific knowledge of the general public. *Public Opinion Quarterly, 80*(3), 741-760.

Witherspoon, J. (1912). Lecture XII. In V. L. Collins (Ed.), *Lectures on moral philosophy* (pp. 87-99). Princeton, NJ: Princeton University Press.