



Contesting hydrofracking during an inter-governmental hearing: Accounting by reworking or challenging the question

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Abstract

An inter-governmental hearing on hydrofracking for natural gas is examined. The Department of Environmental Conservation (DEC) recently released an Environmental Impact Statement (EIS) and takes questions from the New York State Assembly. Assembly members pose concerns with the EIS. The DEC's responses at times appear to not address the question, but rather to challenge or rework the question in a way that can be answered from the DEC perspective. Assembly members assess seeming evasive answers in critical ways. This interactional pattern is examined from a discursive analysis perspective as problem–accounts–assessments sequences. Especially notable are the discursive practices of reported speech and metadiscourse in these accounting sequences. The conflicting assessments are not based on 'the facts', but on *which facts are relevant*. The DEC can be heard as advocating for their draft of the EIS despite the concerns raised by the Assembly. At certain junctures, Assembly members accuse the DEC of being biased or evasive, which does not make for the trust needed to reach consensus. At stake in this hearing is the construction of environmental or public health risk and whether or not to permit hydrofracking.

Keywords

Accounts, assessment, environmental controversy, environmental impact statement, hydrofracking, inter-governmental hearing

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Introduction

Blaming is a way of manning the gates through which all information has to pass

(Douglas, 1992: 19)

The unconventional method for drilling for natural gas, called hydrofracking, arguably has turned into the most contentious environmental controversy in New York State (NYS) history. Hydrofracking has generated controversy in several other states throughout the United States as well as other countries. Three years into this controversy in NYS, a hearing on hydrofracking was convened by the NYS Assembly's Standing Committee on Environmental Conservation. The public hearing lasted all day with experts, stakeholders, and lay citizens testifying, but the focus here will be on the exchanges with the Department of Environmental Conservation (DEC). The DEC wrote the Environmental Impact Statement (EIS) on hydrofracking which is the focus of the hearing. These two governmental organizations offer rather different accountings of hydrofracking. Broadly speaking, the Assembly members pose concerns with hydrofracking, while the DEC mitigates such concerns and maintains that hydrofracking can be done safely. The central question of this study is how these different assessments of hydrofracking play out through this inter-governmental hearing. In particular, I am interested in *the ways DEC's accounts resist critical questions raised by the Assembly, and how such accounts are in turn assessed*. At stake in this hearing is whether or not to accept the EIS as part of the process of permitting hydrofracking in NYS.

The hydrofracking controversy in NYS

High-volume, horizontal hydraulic fracturing, commonly called hydrofracking or fracking, involves injecting water, sand, and chemicals into horizontal gas wells to fracture shale and release deposits of natural gas. This unconventional form of natural gas extraction began in the Barnett Shale in Texas and spread to different areas throughout the United States. The richest gas deposits are in the Marcellus Shale lying under the states of Pennsylvania, West Virginia, Ohio, and New York (Duggan-Hass et al., 2013). Natural gas drilling was seen as an economic boon for economically depressed rural areas (McGraw, 2011; Wilbur, 2012). Also, natural gas is touted as a cleaner burning source of energy than coal and a way to reduce greenhouse gas emissions (McKibben, 2012). But environmental problems began to appear – the most infamous being when homeowners were able to light their water faucets on fire due to methane migration (Fox, 2010). Other environmental disasters began to be reported: water wells became contaminated; drilling-waste fluids were dumped into rivers, killing aquatic life and affecting drinking water downstream; methane emissions from wellheads degraded air quality; increased truck traffic ruined local roads; as well as socio-economic disruption of local communities due to boom-and-bust economy and the onslaught of out-of-state workers (Guignard, 2013; Perry, 2013; Wilbur, 2012).

As part of the process to permit such drilling in New York, the DEC was charged with updating the EIS. During this review process, farmers and landowners raised questions about the dangers of hydrofracking which the DEC did not seem to have satisfactory answers to. Public health concerns led to the formation of grassroots citizen groups.

Public hearings held as part of the environmental impact process proved divisive as proponents and opponents spoke out in increasingly volatile language and vehemence (Wilbur, 2012). Public health officials and scientists raised concerns about the EIS in letters to newspapers, and at public forums and other venues. The DEC received an unprecedented number of comments to respond to. These critical comments led the DEC to undertake a revised draft Supplemental Generic EIS. Once the revised EIS was released, a hearing was called by the Assembly's Standing Committee on Environmental Conservation to seek input from stakeholders and the public and to ask questions of the DEC's representatives. This inter-governmental hearing held on 6 October 2011 is the focus of the study.

The inter-governmental hearing examined here involves two units of NYS government: the DEC and the General Assembly's Committee on Environmental Conservation, who is sponsoring the hearing. The DEC's mission is the conservation of natural resources, but the DEC also includes the Division of Mineral Resources whose mission is oil and gas extraction. The Assembly is comprised elected representatives of the legislature. The hearing can be seen as part of a process of checks and balances between the different interests in state government and their constituents. If this revised EIS is accepted, the DEC could then start permitting hydrofracking. This was the only inter-governmental hearing in which the DEC Commissioner participated on this draft of the EIS.

Consider some of the competing discourses and communication events occurring in the months preceding this hearing:

- reports of positive and negative experiences with hydrofracking from other states, especially from neighboring Pennsylvania with its economic boom (jobs, royalties, increased state revenue) as well as detrimental environmental and public health impacts (well-water contamination, health effects on residents or animals near well sites, industrialization of rural areas);
- the gas companies' influence in NYS through advertising campaigns and political contributions;
- farmers' and landowners' coalitions wanting to lease their land for drilling;
- grassroots citizen groups and environmental groups calling for a moratorium or ban;
- scientific/technical experts offering conflicting risk assessments;
- court cases involving gas companies suing towns for banning hydrofracking through local zoning;
- press coverage increasingly focusing on the dangers associated with hydrofracking (Mazur, 2014);
- special television and radio programs on hydrofracking;
- documentary films, especially *Gasland* (Fox, 2010);
- lay citizen participation in public hearings, letters to the editor, lawn signs, protest rallies, and neighbor-to-neighbor conversations;
- public opinion polls showing a slight majority against hydrofracking;
- political officials (local, county, state, federal levels) caught in a cross-fire of proponents and opponents.

This cacophony of voices and interests and conflicting assessments gets funneled down to the DEC and Assembly. This draft of the EIS received an unprecedented number of written comments from experts, stakeholders, and the public.

Public hearings

Hearings, such as the one examined here, bring together multiple and often competing points of view. Research on public hearings has largely focused on lay citizen input, or lack thereof, and on governmental decision-making (Boholm, 2008; Buttny, 2010; Diez and Stern, 2008; Llewellyn, 2005; Tracy and Hughes, 2014). Surprisingly, studies of hearings involving different units of government have received scant attention. Yet inter-governmental hearings are important forums for writing legislation and policy (Boynton, 1991). Inter-governmental hearings can make for more ‘horizontal governance’, rather than top-down decisions, in an effort to achieve legitimacy and accountability (Bora and Hausendorf, 2006).

Inter-governmental hearings are officially characterized as fact-finding inquiries, but hearings on controversial issues often turn adversarial and become argumentative or evolve into an extended debate. Argument in such institutional contexts typically gets fitted into question–answer sequences (Hutchby, 1996). Questions are the primary means for seeking answers and fact gathering; ‘questions are account seekers’ (Tracy and Robles, 2009: 133). Questions may be designed with embedded critical statements or prefaced by accusatory information hearable as criticism or a challenge. Questions may cite a third-party to pose critical questions or cite facts which contrast with the recipient’s position and offer them for comment. A study of senate committee hearings found that questions commonly take the form: ‘Here is what you say; someone else says; how can you sustain what you say?’ (Boynton, 1991: 145). How challenging questions are responded to is crucial in how an argument proceeds and how issues get co-constructed during contentious hearings. These exchanges are not solely designed for the participants at the hearing, but also for a broader overhearing audience (Goffman, 1981), that is, for the record, the press, decision makers, or public opinion.

Rationale, perspective, data

Initially, I watched this hearing as an ordinary citizen concerned about the consequences of hydrofracking. I hoped these two NYS environmental conservation bodies would provide some clarity, or reach consensus, about the environmental and public health concerns with hydrofracking. But I was soon disappointed because the DEC did not seem to address some key questions posed by Assembly members. Conflicting accounts over the safety of hydrofracking became apparent. I was struck by the interactional pattern of Assembly members raising concerns and the DEC minimizing or mitigating such concerns, leading Assembly members to further challenge the DEC.

The DEC’s seeming resistance to certain questions raised by the Assembly is examined here. How such resistance to questions is done and how such resistance is assessed constitute a crucial part of the competing accountings on hydrofracking. The focus will be on how competing assessments over hydrofracking arise, get questioned, and are



Photo 1. Photo of the inter-governmental hearing.

responded to during the hearing. Given the general structure of the question–answer format, we track participants’ stance and interactional moves in challenging or defending their perspective on the risks with hydrofracking.

Our attention will be on how accountability gets interactionally accomplished at the hearing. Given the inter-governmental hearing’s format, problems or concerns are built into the questioning components which typically engender an account to mitigate concerns. Accounts involve statements that construct or project a version of events to mitigate or remediate (possible) criticism (Buttny, 1993). The central question here will be *how these different assessments of hydrofracking play out through the accounting sequences in this hearing*. At stake is whether or not to accept the DEC’s draft of the EIS and permit hydrofracking. The practical question arises as to the quality of this environmental review process.

The data for this study come from a video recording of the 6 October 2011 hearing. A transcript of key segments of the hearing was drawn up using a modified Jefferson format (Jefferson, 2004). Excerpts from the transcript are selected which show the DEC’s resistance to certain critical questions.

Accounting by reworking the question

The DEC Commissioner, Joe Martens, begins the hearing by reading a prepared statement. Commissioner Martens, along with his three Deputies, then takes questions and comments from Assembly members for around three hours. The physical layout of the meeting is shown (see Photo 1) with the DEC spokespersons sitting before the Assembly members and the public audience seated behind the DEC participants.

Several Assembly members ask questions that pose problems or concerns with the EIS. The DEC representative, at times, reworks the question such that it can be more readily

answered. This altering the question can make one vulnerable to being called to account for not addressing the question as asked. But the question itself can be challenged as problematic. So both the question asker and the question recipient are accountable as regards a proper question. What counts as an evasive answer or a sound question is itself something that can be reflexively made relevant. In this study, the focus will be on those instances in which the question or the response becomes challenged or problematized.

In the following excerpt, the DEC Commissioner reworks the question in the course of answering:

#1 (22:17–23:21, Participants: AS = Assemblyman Robert Sweeney; CM = DEC Commissioner Joe Martens)

01 AS: The:: (2.3) with regard to waste issues, uhm can you tell
 02 me why: the regulation exempting (.) natural: ga:s and
 03 oil drilling waste products from the hazardous waste (.)
 04 †designation was adopted and (.) what testing was done to
 05 determine the composition of- of that waste?

06 CM: Uhm I think that the way the waste is characterized
 07 is less- less important Assemblyman than (.) ah the
 08 fact that it's properly treated, ah these wastes
 09 like fracking wastes and return water ah would be
 10 classified as industrial waste and they have to be
 11 treated as industrial waste they have to be tracked
 12 (.) tested and tracked from the point of generation
 13 to the point of disposal and I think the- the relevant
 14 question is will they be treated properly, and we
 15 think that they can be treated in (0.8) wastewater
 16 treatment plants that have approved pre-treatment
 17 facilities? they have to meet EPA and DEC standards . . .

Commissioner Martens addresses the question by formulating what Sweeney is asking, 'the way the waste is characterized' (line 6). Martens proceeds to frame the issue as the proper treatment of the wastes (line 8). As he puts it, 'the relevant question is will they be treated properly' (lines 13–14), thereby implicating that Sweeney is asking the wrong question. Martens uses metadiscourse, 'the relevant question is' (lines 13–14), to refocus the issue from classifying waste to the treatment of waste. Martens' version makes relevant his further description of how the waste will be treated, rather than the issue Sweeney poses – why the DEC's categorization of the waste has changed.

Commissioner Martens' response here shows careful attention to word choice. He avoids using Sweeney's designation 'hazardous waste' and instead uses 'fracking wastes and return water' and 'industrial waste' (lines 9–10). The designation 'hazardous waste' involves certain legal requirements from the US Environmental Protection Agency which Martens avoids discussing. Also, Martens' term 'return water' masks the fact that the fluids used in hydrofracking are not simply 'water', but water containing various toxic chemicals.

In response, Assemblyman Sweeney challenges the Commissioner's answer by restating his original question:

#2 (23:52-24:20 Continuation of #1: AUD = Audience)
 ((skip ten lines of Commissioner Martens' answer))
 28 AS: Oh but I think the question is why-
 29 < why should there be any blanket exemption >
 30 ↑at all ↓why shouldn't it all be tested? and if it
 31 meets: the definition of hazardous waste be treated
 32 accordingly and >if it doesn't it doesn't?<
 33 (0.9)
 34 >Why- why just< give a blanket exemption ↓on it.
 35 CM: >Again< I think it's the more important question is
 36 (.)\$can it be treated properly\$ [(.) whether it's =
 37 AUD: [Hhhhhhhhhhhhhhhhhhhhh
 38 CM = [hazardous waste or industrial waste
 39 AUD: [hh
 40 AS: I'm going to ask the audience please: it's not appropriate

Sweeney here holds Martens accountable to the original question. Sweeney's meta-discourse, 'the question is' (line 28), implicates that the original question has not been answered. Sweeney then formulates the issue, drawing from his original question, as a 'blanket exemption' (line 29). His restatement of the question is uttered more slowly for emphasis (line 29) and then re-stated a moment later in the form of a why-question (line 34). In restating his question, it is formulated in a more intensified and hearably critical fashion, especially the problem ascription of the DEC's allowing a 'blanket exemption' (lines 29 and 34).

Sweeney's assessment of Martens' answer comes in a third turn. Such third-turn slots are crucial points in inter-governmental hearings; it is a juncture for the questioner to move on to the next question or to critically assess the answer. Critical assessments of an answer typically contain some further question components to make relevant a further response. So the hearing can be seen as organized around the basic three-part sequence (question/problem-answer/solution/account-assessment/question). So, Assembly members do have a third-turn assessment slot to challenge seeming evasive answers. This assessment may include conflicting information or contrary evaluation. Given the hearing format, third-turn critical assessments are commonly combined with question components, thereby eliciting a further response from the DEC.

Given Sweeney's critical assessment and intensified restating of the question, Commissioner Martens replies by insisting on the DEC's position. He utters emphatically in staccato voice, '\$can it be treated properly\$' (line 36). So, Assemblyman Sweeney and Martens contend over the appropriate question to be addressed. We have Sweeney's original question (excerpt #1, lines 2-4), Martens' attempt to rework the question by the metadiscourse, 'the relevant question is' (excerpt #1, lines 13-14), which leads Sweeney to hold him accountable to the original question by 'the question is' (excerpt #2, line 28), and then Martens, 'the more important question' (excerpt #2, line 35). This movement to a meta-level allows both interlocutors to insist on the appropriate question to be addressed.

As Martens continues to resist Sweeney's question by returning to his answer on waste treatment, the audience in the auditorium begins to laugh (lines 37, 39). This

laughter can be heard as a critical evaluation of the Commissioner's answer. Martens' answers are broadly on the topic of dealing with wastes, but he overtly shifts the agenda from the question of giving an exemption on hazardous waste to the treating of industrial waste. Unlike a court of law, the Assembly has no legal recourse to compel the DEC to answer the question as asked, but at a public event there is the so-called court of public opinion as displayed here in the audience's laughter.

In the following extract, Assemblyman Sweeney continues pursuing an answer to his original question on the hazardous waste exemption:

#3 (25:26-26:09 DL = DEC Deputy-Commissioner Eugene Leff)
 ((Continuation of excerpt #2; skip sixteen lines))
 57 AS: From the information that you have does any of the
 58 waste that's produced by the industry um pose:
 59 I'm going to use the language here that is the definition
 60 of hazardous waste ((begin reading)) a substantial present
 61 or potential hazard to human health? or the environment
 62 when improperly treated stored transported disposed (.) or
 63 otherwise managed.
 64 (1.3)
 65 Is any of the waste they produce meet that definition.
 66 (1.6) ((Martens signals Deputy-Commissioner Leff to answer))
 67 DL: >Thank you< the ah Clean Water Act requires that all
 68 industrial waste similar to this industrial waste be
 69 treated in the way that we propose in the SGEIS=there
 70 will be pre-treatment requirements? and ah there will
 71 be complete treatment based upon the requirements of
 72 the Clean Water Act . . .

Sweeney continues to pursue the hazardous waste issue by reading its legal definition and asks the DEC about it. In response, Commissioner Martens signals Deputy-Commissioner Leff (DL) to field this question. Leff's response addresses the topic of waste, but circumvents the issue of hazardous waste. He maintains the 'industrial waste' designation (line 68) and deflects the question of the hazardous waste definition question altogether by citing the applicable standard they are required to follow in the Clean Water Act. The requirements of the Clean Water Act are used as a justificatory account. This is the most marked working around the question by answering with the preferred terms. Sweeney, having raised the hazardous waste question for the third time, does not pursue it further as he moves on to another question (not shown here).

Later in the hearing, the Commissioner avoids a series of critical questions and justifies his refusal. He then recasts the question in, what is for him, a more appropriate way. This excerpt is part of a lengthier segment in which Assemblywoman Lifton is reporting the health problems she heard about on a visit to Pennsylvania, where hydrofracking is already underway. She asks Martens what he has heard of these health problems during his visit to Pennsylvania:

#4 (1:19:36-1:20:59 AL = Assemblywoman Barbara Lifton)
 01 AL: So tell me what the state of Pennsylvania the DEP has

02 said about (.) um why those people have polluted water
 03 (.) contaminated water (.) and what if anything they're
 04 doing to help them, people say the state is mostly
 05 walking away from them as is the industry saying the
 06 industry's saying it's not our problem we're not >ya
 07 know< you're going to sign a non-disclose statement ah
 08 you can't go out and talk publicly about this: (0.8)
 09 uhm (.) but we'll bring water to you uhm (.) what is the
 10 state saying about that? what is the industry saying
 11 to you about that? ↑wha- what do we really ↑know
 12 about what's happening to the people in those counties
 13 in Pennsylvania where there's full-bore as you say
 14 at a sprint ah [the industry has rolled out.
 15 CM: [Assemblyman I can't- I can't possibly
 16 speak fer: Chesapeake or the Pennsylvania Department
 17 of [Environ-
 18 AL: [You said you spoke to >I'm sorry< you said you spoke
 19 to them.
 20 CM: But I can't speak for them [I mean >they're the ones =
 21 AL: [>Okay<
 22 CM: = that are responding to this incident< what I can tell
 23 you is that what I saw there was a containment area around
 24 a well pad that was: (.) ah did not appear to me to be
 25 properly constructed that this: incident could have been
 26 avoided if it was properly constructed and: (.) it's
 27 precisely those types of requirements in the: that would be
 28 required in New York State that I think could ↑avoid that
 29 type of situation . . .

In the course of asking a series of questions, Assemblywoman Lifton uses reported speech of what 'people say' (lines 4–5) or the prototypical voice of what 'the industry is saying' (lines 5–9) to construct problems with drilling. She then moves to ask what Commissioner Martens heard from the state or from the industry as regards these problems.

Martens resists this line of inquiry by overlapping Lifton's problem presentation (lines 14–15). He formulates Lifton's questions as asking him to 'speak for' the state or the industry (lines 15–17). But Lifton's questions are not asking him to 'speak for' the state or the industry, but to report what he had heard or learned from his meetings in Pennsylvania. Formulating Lifton's request in this way allows him to justify circumventing her questions. Martens moves away from the environmental and health problems that Lifton raised to what he says he can report on: 'what I saw there' (line 23). Pivoting away from Lifton's problem questions to what he saw there allows him to make relevant his talking points of how DEC's regulations will prevent this kind of problem from happening in New York.

So in this section, the DEC is able to rework the question by formulating the Assembly member's question in a problematic way. This formulation of a problematic question then allows Martens to use metadiscourse to form a preferable question that can be readily answered from the DEC's perspective. We see this reworking the question in excerpts

#1, #2, and #4. In excerpt #3, the formulating-the-question move is elided since that was already done in excerpts #1 and #2, plus the account justifies avoiding the hazardous waste question.

Accounting by challenging the question

In this section, we see the related accounting strategy of challenging the question. What gets made relevant from a question is itself something that can be contested. Again, the issue is how the DEC representative frames the question. In the following exchange, Assemblyman Sweeney summarizes the testimony of various experts ('health professionals and scientists') along with citing specific risks of hydrofracking ('endocrine disruptors and methane'), before asking DEC Commissioner Martens to respond. Martens accounts by undercutting these problems because the experts' findings are based on what happened in 'other states' (in bold):

#5 (34:34-36:21)

01 AS: Okay we did a hearing on this subject as I think you
 02 know in May specifically just on the health aspects, eh
 03 °this committee did a hearing° and ah we heard then from a
 04 number of um health professionals, uhm †scientists who
 05 were pretty: consistent in indicating in that- that ah
 06 more research was necessary ah to determine the potential
 07 impacts ah particularly with regard to endocrine
 08 disruptors and methane and a number of other things,
 09 †so I- I guess I need to ask how confident you feel
 10 that ah (.) those issues have all been taken into
 11 consideration adequately (0.5) uhm along with all the other
 12 potential health impacts before drilling (.) begins.
 13 (0.6)

14 CM: I guess ah >ya know< part of the answer to that ah
 15 Assemblyman is that (0.5) the ah the focus: for health ah
 16 professionals has been on the experience in **other st;ates**
 17 (.) which ah has not necessarily been good. We've seen
 18 problems in **other states** and our SGEIS was informed by those
 19 problems in **other states** which \$we: intend to avoid\$ so
 20 I don't think we are going to, I'm confident we will not
 21 experience the problems that occurred in **other states**
 22 because we've addressed those issues of shallow gas
 23 migration against >you know< controls that needed to be
 24 placed on fracking fluids storage of the fracking fluids
 25 again secondary containment places where chemicals are mixed
 26 on sites, so I think eh we've been well informed by
 27 the practices of **other states** that health officials and
 28 professionals have been concerned with (.) and
 29 we designed our SGEIS around those concerns

Assemblyman Sweeney prefaces his question with a summation of the dangers of hydrofracking as documented from testimony from experts at a prior hearing. Citing the

views of experts is a common strategy in such hearings (Boynton, 1991). Not only does this allow drawing on the credibility of experts, but it permits the questioner to adopt an investigative stance.

Commissioner Martens avoids addressing these specific health risks cited in Sweeney's question. Martens is able to circumvent discussing these health risks because they are based on the assumption that what happened in 'other states' will also happen in New York. He argues that the safeguards of their EIS are designed to avoid the 'problems of other states'. The specifics of how the DEC intends to avoid these problems are mentioned only in passing in a summary fashion. Implicit here in Martens' accounting is the DEC positioning, 'Trust us, things are under control'.

Challenging the question is an accounting strategy employed again in the following excerpt:

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#6 (39:15-40:53)
01 AS: this is from her testimony (1.0)
02 ((reading)) since there have been many concerns voiced about
03 the cost to communities: (.) why was there no attempt to
04 estimate such costs: costs associated with the increased
05 demand for community social services police and fire
06 departments first responders local hospital etcetera should
07 be estimated not simply mentioned and then ignored, the
08 final paragraph of the assessment report simply lists a few
09 of the costs to communities but there is no effort to
10 estimate any of the costs
11 (1.0)
12 your response
13 CM: I think the SGEIS did estimate some of the costs involved
14 in particular it ah talked about the costs of maintaining
15 roads and repairing roads and having roads ah be put into
16 the condition so they can actually accommodate the heavy
17 truck traffic that is associated with this activity
    ((skip five lines))
23 again the um- a lot of the questions are based on the
24 experiences of other states which we: do hope to avoid in
25 New York.
26 (2.1)
27 AS: .hh well then based on the experience in other states >I
28 mean< you make a very specific estimate about how many jobs
29 will be cre↑ated based on other states? so why is it not
30 possible (.) um based on information in other states ah to
31 develop estimates: on community costs? among other things
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The Assemblyman reads the criticism from an outside expert to raise concerns with the EIS. Martens disagrees with the expert's conclusion in that community costs of roads are dealt with in the EIS. But this response seems at best a partial answer since the expert's critique lists several potential community costs, for example social services, police and fire departments, first responders, local hospital (lines 4–6). Martens says

nothing about these costs, but instead addresses the costs for roads – which was not included in the read statement.

Toward the end of his account, Martens returns to his challenging the presupposition of the question, ‘the(se) questions are based on the experiences of other states’. This ‘other states’ account was not previously challenged (see excerpt #5), but here Sweeney responds in a third turn to hold him accountable. He begins by drawing on Martens’ own words, ‘the experience of other states’, to intensify his criticism. Sweeney formulates Martens’ moves: he contrasts the DEC’s specific estimate of the benefits, for example jobs, but says nothing about the costs from hydrofracking. The implication of Sweeney’s formulation is that the EIS is biased in looking to other states for favorable projections, but not for adverse impacts such as community costs. This assessment holds the DEC accountable to the initial question of community costs from hydrofracking.

In response to Sweeney’s critical third-turn assessment, the DEC defends its EIS as being ‘generic’ and thereby cannot be held accountable as to specific costs:

#7 (40:50, CR = General Counsel Steven Russo)
 ((continuation of excerpt #6))
 29 AS: . . . why is it not
 30 possible um based on information in other states ah to
 31 develop estimates: on community costs? among other things
 32 CR: If- if I may uhm I think it’s important to emphasize that
 33 this is a gen:eric environmental impact statement and the
 34 word generic is extremely important here because it’s
 35 looking at impacts (.) across a wide swath of the state
 36 for activities in many many places and there has to be an
 37 understanding of that and it’s in some ways going to
 38 have to be (.) by definition generic? so even the cost
 39 estimates even the estimates of job growth we qualify it
 40 and make it very clear these are all just estimates we’re
 41 just trying to make some informed predictions,
 ((skip 12 lines))
 54 AS: I appreciate that but you kn(h)ow the document projects
 55 17,364 jobs to be fill(h)ed by New Yorkers, †that seems
 56 pretty specifi[c I mean so why can’t you create a =
 57 AUD: [h h h h
 58 AS: = number like tha:t:

Assemblyman Sweeney concludes his assessment with a question about the specific community costs (lines 29–31). At this point, the DEC Counsel Russo (CR) intercedes for Commissioner Martens and points out that the EIS is written as ‘generic’. And since it is generic, the DEC cannot be held accountable for the specific costs being asked for. Russo does acknowledge that there will be costs to communities, but these cannot be realistically enumerated due to the generic form of the EIS. So, Russo challenges Sweeney’s question as unrealistic and attempts to reframe the issue under the rubric of a generic EIS.

In response, Sweeney challenges Russo’s claim of the EIS as generic by the DEC’s specific estimate of ‘17,364 jobs’ (line 55). The implication here, again, is that the DEC

is biased – it offers specific benefits (jobs), but estimates on costs. Sweeney’s interspersed laughter (lines 54–55) in citing the specific number of projected jobs lends his assessment response an air of saying the obvious. Audience members’ smattering of laughter (line 57) aligns with Sweeney’s criticism. Laughter, of course, works as an assessment marker as seen here, and especially in excerpt #2. Sweeney ends his assessment with a question (lines 56–58), basically the same question with which he concluded his prior assessment (lines 29–31). Sweeney’s repeated assessment of seeming bias is hearable as an intensified criticism of the DEC.

The DEC’s accounting strategy of challenging the question as based on ‘the experiences of other states’ (excerpts #5 and #6) seems to be DEC’s generalized answer for deflecting criticism of the EIS – a ‘generalized’ answer in the sense that it can be adapted to respond to most any report of problems from other places. In the following excerpt, this strategy gets drawn on again:

#8 (43:55-45:26 redundant)

01 AS: I’ll read you again what her testimony is going to be,
 02 (.) ((reading)) why was there no attempt to measure public
 03 health costs (.) there is much research on the negative
 04 health impacts of shale gas drilling (.) and the public
 05 has repeatedly voiced such concerns (.) the costs
 06 associated with these impacts should be set forth.

07 (2.6)

08 CM: I- I hate to sound redundant, but our entire framework and
 09 program here is designed to avoid those costs it’s to
 10 avoid contamination of water supplies and pathways that
 11 would expose people to the chemicals and um (0.5) that are
 12 used in this process? that it is a preventative approach if
 13 you look at other states I’m not sure it’s fair to compare
 14 New York to Pennsylvania or Texas or Oklahoma because we
 15 are being much more aggressive in the way we are- would
 16 regulate this industry

17 AS: I appreciate that and- and I appreciate the answer

18 I would just make the observation there is not a single
 19 state where this kind of drilling is taking place where
 20 there have not been (.) significant health issues that
 21 have developed †and

22 I hope you’re right ah that what New York State is doing
 23 will help to prevent a lot of those issues here

24 †but I’m going to pretty much guarantee ya >they’re
 25 gonna happen< and

26 say:ing we think they’re not going to happen

27 or that they will be minimized

28 does not put us in a good position to be adequately

29 prepared eh prepared to respond to them when they do occur

Assemblyman Sweeney again reads from the outside expert’s testimony, raising a number of public health concerns with hydrofracking. Martens again challenges the assumption that what happened in other states will happen in New York. By doing so,

Martens can avoid addressing any estimate of public health costs in his answer and by implication justify its absence in the EIS. This is the third time that Martens draws on this 'what-happened-in-other-states' answer and he displays his recognition of the repetition by his turn-initial disclaimer, 'I hate to sound redundant, but' (line 8).

Sweeney's assessment of Martens' what-happened-in-other-states account can be heard as 'setting the record straight' (Boynnton, 1991). After turn-initial appreciations (line 17), Sweeney switches footing and, in marked contrast to Martens reassurances, observes that every state with hydrofracking has experienced 'significant health issues' (lines 18–21). The obvious implication of this is to raise doubts that New York will be any different from other states with environmental and health problems from hydrofracking. Sweeney summarizes what Martens said by indirect speech (lines 22–23) and then immediately contradicts Martens' assurances with a first-person counter-claim, '↑but I'm going to pretty much guarantee ya >they're gonna happen<' (lines 24–25). Sweeney continues his assessment with more indirect quoting of Martens, 'say:ing we think they're not going to happen or that they will be minimized' (lines 26–27) and then moves to a generalized critical evaluation of this position (lines 28–29). Sweeney's heightened critical assessments can be heard as responding to Martens' repeated 'other states' answers and directly contradicting them.

Discussion

This study has focused on the competing assessments of hydrofracking during an inter-governmental hearing. The DEC adopts the dual footing of taking questions while defending their draft of the EIS in ways that sometimes appear evasive. Assembly members raise questions/problems, and the DEC, at times, reworks or challenges the question/problem leading to the Assembly's third-turn assessment. Through such accounting sequences, different assessments of hydrofracking get constructed. Instead of the hearing achieving consensus, the risk assessments seem as polarized as ever (Boholm, 2009).

One way Assembly members raise concerns is by citing multiple voices in their problem questions. Voices of experts, stakeholders, and affected residents are invoked through the discursive practices of reported speech. While scientific or technical experts do not testify at this hearing, the Assembly members draw on their expertise by reading their written statements or summarizing their position. Drawing on the voices of experts or stakeholders works to hold the DEC accountable for the potential impacts from hydrofracking.

Some of the DEC's responses to questions are similar in structure to politicians' replies to challenging questions during broadcast news interviews. At certain points, the DEC's responses can be heard as 'agenda-shifting' (Clayman, 2001; Harris, 1991) or as 'transformative answers' in resisting the constraints posed by the questions: 'transforming the terms of the question' from hazardous to industrial waste (excerpts #1 and #2), or 'transforming the agenda of the question' – those problems happened in other states (excerpts #5, #6, and #8) (Stivers and Hayashi, 2010: 21). This transforming the question has the effect of undercutting the grounds for having to account for the question as asked (Sidnell, 2004).

In raising problem questions, Assembly members initially adopt a neutralistic footing similar to that of journalists in news interviews (Clayman, 1992). Generally, participants display affective neutrality which might be glossed as a professional or bureaucratic demeanor. But in response to seeming evasive or defensive answers, Assembly members repeat their questions in the third turn by formulating the question in a more pointed and critically explicit way. Their footing changes and adopts a more argumentative tone. Assembly members display noticeable affect, such as frustration or exasperation with answers or evasions. For instance, Sweeney repeats his question more slowly and emphatically to hold Martens accountable (excerpt #2), or he uses interpolated laughter in challenging the DEC's inconsistency (excerpt #7), or he quotes what Martens said and then immediately contradicts his statements (excerpt #8). These performative aspects of accounting through prosody, repetition, or laughter work to intensify what is being said.

As participants contest one another's statements, they move to a meta-level – talk referencing one's own or another's talk – so-called metadiscourse. Metadiscourse can function both *retrospectively* (e.g. as an implicit critique of being asked the wrong question) and *prospectively* (e.g. to make relevant what to account for). Metadiscourse is used by the Assembly to hold the DEC accountable for evasions—'Oh but I think the question is' (excerpt #2), or for bias, that is, criticizing the estimate of jobs that will be created but nothing on costs (excerpt #7). As the hearing becomes more adversarial, participants employ more metadiscourse in accounting or assessing. Repeating the question in the third turn in a more intensified manner is metadiscursive and underscores the implicit blame that the original question has not been answered (excerpts #2 and #6).

The disagreements between the DEC and the Assembly are not so much over 'the facts', but rather over *which facts are relevant*. According to the DEC, the need to test the waste as hazardous is beside the point since the waste has been legally reclassified as industrial waste. Similarly, what happened in other states is not relevant because of the protections the DEC is putting into place for New York. Such seeming evasiveness or bias does not make for the trust necessary to reach consensus (Douglas, 1992; Pidgeon et al., 2006). Despite the DEC's assurances, their statements do not appear so neutral or objective to some Assembly members (Fisher, 2000).

The *dramatis personae* of this hearing also include the audience in the auditorium. Laughter from the audience heightens the critical assessment of the DEC's evasiveness and adds to the dramaturgy of the hearing (Palmlund, 2009). The audience's laughter or audible comments get censored by the Chair of the Assembly, but nonetheless such responses become part of the overall assessment. The participation framework (Goffman, 1981) of this hearing is not only the designated speakers, but also the audience in the auditorium and the larger overhearing audience: the public, the stakeholders, the press, and other governmental officials.

As mentioned previously, I was disappointed with this hearing because I expected participants to address more science-based concerns. Instead, we got attempts to reframe the potential risks, or implicit appeals to trust the DEC. In retrospect, an inter-governmental hearing on such a controversial topic may not be the place for a serious discussion on science, rather it is where science gets simplified, glossed in layperson's terms, and used for pragmatic ends (Hilgartner, 2000). I overlooked Wilbur's (2013) felicitous characterization: 'Policy is where science meets politics.' Instead of a strictly

scientific discussion, we get the DEC's staunch defense of their draft of the EIS. While the DEC's defensive tactic may seem problematic, as Tracy and Hughes (2014) have pointed out for lay citizen participation at public hearings, both advocacy and deliberation have their place in democratic decision-making. The same point could be made for inter-governmental hearings: the DEC can be heard as advocating for their draft of the EIS. A horizontal decision-making process allows for both deliberation and advocacy. Assessments on hydrofracking are not only based on *science*, but also on *politics* and ultimately on *feelings* (Pidgeon et al., 2006; Slovic et al., 2004). These three discourses were clearly at play during this inter-governmental hearing. At the end of the day, I look upon this hearing more favorably, as part of a process of conflicting interests and multiple voices ventriloquized to question, challenge, or hold the DEC accountable for three hours.

As a practical concern, we are left with the quandary of how two governmental units, each with the moniker Environmental Conservation, can avow such diverging assessments of hydrofracking. This lack of consensus is not uncommon in inter-governmental hearings on controversial issues (Boynton, 1991). This inter-governmental hearing reflects the broader public debate and context. Given that the DEC was not able to alleviate many of the concerns raised here appears to constitute why the environmental review process could not be completed in a timely fashion. In fact, 11 months after this hearing – September 2012 – the DEC instructed the Department of Health to review their findings on hydrofracking and the impact on public health. Now, over three years since this hearing, due to public health concerns Governor Cuomo and DEC have elected to ban hydrofracking in NYS (Revkin, 2014).

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Appendix

The transcription system used here is adapted from the Gail Jefferson system (Jefferson 2004).

- [Marks overlapping utterances.
- (.) A short untimed pause or gap within or between utterances.
- (1.2) Indicates pauses or gaps within or between utterances; timed to tenths of a second.
- :
- : Colons mark the extension of a sound or syllable it follows. The more colons, the longer the sound stretch.
- ?
- ? Marks a rising intonation.
- ↑
- ↑ Marks a rising shift in intonation.
- ↓
- ↓ Marks a declining shift in intonation.
-
- Marks a halting abrupt cutoff.
- word
- word Underlining marks a word or passage said with emphasis.
- °word°
- °word° Degree signs mark a passage that is said more quietly than surrounding talk.
- >word<
- >word< Chevrons marks a passage delivered at a quicker pace than surrounding talk.
- <word>
- <word> Inverted chevrons marks a passage delivered at a slower pace than surrounding talk.
- §word§
- §word§ Marks a passage spoken in staccato voice.
- hhh
- hhh Audible outbreaths including laughter.
- ()
- () Unsure of what is transcribed.
- ((word))
- ((word)) Scenic details or description of the context.