Guinea Pigs of the Shale: Informed Consent and the Politics of Fracking

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Summary

• Thank you!

• Whether, where, when, how to frack...**who decides?**
  (more important than **what** the rules should be)

• Problems with status quo answer and leading alternative answer to question of **who decides**.

• Another way to think through this question, by way of an analogy with human subjects of research?
Hydraulic Fracturing

Hydraulic fracturing, or "fracking," involves the injection of more than a million gallons of water, sand and chemicals at high pressure down and across into horizontally drilled wells as far as 10,000 feet below the surface. The pressurized mixture causes the rock layer, in this case the Marcellus Shale, to crack. These fissures are held open by the sand particles so that natural gas from the shale can flow up the well.

Marcellus Shale

Well turns horizontal

Fissures

Well

Mixture of water, sand and chemical agents

Natural gas flows from fissures into well

Sand keeps fissures open

The shale is fractured by the pressure inside the well.

Graphic by Al Granberg
Wells near South Lakes Park

Rayzor Ranch

Blowout

Hickory Dump/ New Wells

Football Fracking

Wells near South Lakes Park

Vintage Wells
The Clash
Denton homeowners sue energy company over fracking sites

by TODD UNGER
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WFAA
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DENTON – A battle that has been brewing for months between an energy company and upset residents of one Denton neighborhood has spilled over into the courts.
The Status Quo

“Most activities involving technology will have undesired effects as well as desirable ones. Whereas the precautionary principle is often used to take an absolutist stand against an activity, the Proactionary Principle allows for handling mixed effects through compensation and remediation instead of prohibition.”

Max More: http://www.extropy.org/proactionaryprinciple.htm

• Of course, good luck establishing harms.
• Who decides?

• Status quo = mineral owners and corporations.

• Alternative: The ideal of self-determination or self-governance. (uniting greens and libertarians)
Self-determination

• Everyone has a right to a say in decisions that will importantly impact their lives.

• An extremely challenging ideal... -- Nozick’s fears of big brother.

• But something right about it when it comes to fracking (or other industrial activities) near where people live, work, and play.
The ‘Self’ in Self-determination

- Pro-frack: mineral owners and corporations
- Anti-frack: community as municipality

- Neither is satisfying
  - Who decides? Should be those vulnerable to harm
Anti-frack Self-determination

• Often articulated in terms of community rights.

• But ‘community’ conflated with municipality.
  – Should someone five miles away have the same political status as someone 250 feet away?
  – What about folks in rural areas?

• ‘Industry’ rebuttal: this is too idealistic.
• My point today: maybe this is insufficiently idealistic.
• The community rights approach takes the existing political ontology for granted.

• But the morally significant sense of ‘community’ here does not map atop existing institutions. We need to ‘politicize’ a new community.

• What if we thought of fracking like experiments with human subjects and of self-determination in terms of informed consent?
The Analogy with Clinical Trials
In both cases we have...

• An experiment: some level of uncertainty
  – Research, not therapy
  – Competing goods: autonomy vs. utility

• The expected goods (for many) can only come about by subjecting some people (the few) to potential and disproportionate harms
  – Who should be first in line to pay the price: scientists and Rex Tillerson!
  – Under what conditions is it acceptable to use people like this...?
Informed Consent

• Who should decide whether it is worth the risk?

• Those most vulnerable to the potential harms
  • Those enrolled in the trial
  • Those in closest proximity to frack sites

• Grounded in the principle of autonomy – *auto nomos* = self legislating
The Status Quo

• Market (e.g., leasing) decisions
  – The most vulnerable are often marginalized
  – Due in large part to the severance of the surface and mineral estates (and predominance of latter)

• Creates distributive and participatory injustices

• A look at Denton...
Blue dots = some of the 265 mineral owners who receive royalties from Acme 1-H
Blue dots = all 265 mineral owners who receive royalties from Acme 1-H
P-12 forms can be found via a search at http://www.rrc.state.tx.us/data/online/gis/index.php
## Distribution of Appraised Values

<table>
<thead>
<tr>
<th>City of Denton</th>
<th>Denton County</th>
<th>DFW Region</th>
<th>Texas</th>
<th>United States</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>$6.5 million</td>
<td>$1.6 million</td>
<td>$2.9 million</td>
<td>$11.9 million</td>
<td>$1.2 million</td>
<td>$24.1 million</td>
</tr>
</tbody>
</table>

Columns indicate where the mineral owners reside. So, the first column “City of Denton” captures everyone who owns mineral values under the soils of Denton and has a mailing address with DCAD in the City of Denton. DFW Region is defined here as Dallas and Tarrant Counties.
Denton Residents' Share of the Wealth

2%
The Status Quo

• Public (e.g., regulatory) decisions

• Municipal government is the best vehicle for the vulnerable to meaningfully participate in decisions that impact their lives.

• It too is largely marginalized by a top-down, centralized regulatory schema.
• But municipal government is not the ideal institution
• It too can become a machine focused on functionality
• Too exclusive: Not all can participate in it – rural areas do not have the conditions for political empowerment
• Too inclusive: Gives equal say to those exposed to harms and those not exposed...
Municipal bans are blunt instruments, but we don’t have any better way to institutionalize the ideal of self-determination.
A better institution?

• Mineral owner coalitions

• But membership in them is contingent on arbitrary criterion of mineral ownership
A better institution?

• Demes
  – A novel political unit that would emerge upon any proposal to frack
  – Case by case determination

• Give self-determination to those most vulnerable (by virtue of proximity)
  – Not to mineral owners
  – Not to city dwellers
Demes and Polycentric Governance

• Hyper-local, ephemeral political units coordinating with, or independent from, municipal government

• How to manage common pool resources?
  – Hardin: less freedom via government
  – Simon: more freedom via market
  – Ostrom: diversify institutions so that freedom is more widely distributed and localized = demes.
    • Taps into both Green and Libertarian sense of self-determination – localized, sustainable and no Big Government
Glocalize fracking?

• This isn't ranching or fishing. The shale isn’t even a resource to manage without capacities foreign to the deme.

• The necessity of standardized rules, specialized equipment, and centralized control structures.
  – It’s not the ownership of the means (capitalists) that is the problem, but the means themselves. It takes a technocracy to frack.
  – If we really want self-governance, we must change not just who is in charge, but what they are in charge of.

• Otherwise, are members of demes anything more than unqualified onlookers to a machine run by outside experts?
Wrap up

• Communities should have the right to a say in decisions that importantly affect them. And, when it comes to fracking, they often do not have that – they are forced to seek compensation rather than asked to grant permission.

• But what is a community?

• Mineral ownership, ownership of the means of production (corporations), and residence in a city as morally arbitrary or incomplete definitions

• Vulnerability to harm as morally relevant – but there is no existing institution to empower this community
  • Do such communities make sense? How do we create them?