

Science in Society: A Troubled Relationship

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Presented at European Science Foundation Workshop on Roadmapping Science in Society,
30 June-1 July 2009, Paris

Cartesian Science

- We are the inheritors of knowledge that is:
 - ✓ Absolute
 - ✓ Singular
 - ✓ Detached
 - ✓ Expert
- No need to involve publics, since there is nothing to discuss
- Excellent for '***problem solving***,' 'normal science'



An Age of Crises

- Climate change
- Fiscal crisis
- Democratic governance
- Biodiversity crisis
- Energy crisis
- Food security crisis
- Et cetera...

Contemporary Crises

- Difficult to define
- Require multiple perspectives/disciplines
- Entangle committed experts and publics
- Involve difficult tradeoffs among competing values
- Subsume multiple problems with ***contradictory*** solutions
- Demand ***situation improving***, ‘post-normal’ science

Starting Points for a Dialogue

- Science is fundamentally about *imagining* and *building* alternative societal futures
- Publics arise when *issues* exist (Dewey), i.e., when someone's desired future is someone else's undesired future
- Experiments are only complete when technologies are widely *used*

The Humility Principle

- Science can no longer claim absolute authority; doing so ***undermines*** credibility
- Much of contemporary science is wrong (but we don't know which!)
- Any given science can (at best) only ***contribute*** to improving situations
- Improvement is a ***moving target***



Implications

- Different issues create different publics
- Involving publics means:
 - Taking publics' concerns seriously
 - Confronting power differentials
 - Democratizing directions of research
 - Developing means to foresee conflicts
 - Building compromises
- Failure to engage publics will lead to further erosion of scientific authority

Standards as a Way Forward?

Standards...

- Are one location at which public(s) concerns can be introduced
- Are (imperfect) public goods
- Embed values into particular products of science and technology
- Always involve compromises among scientific, market, and civic values
- Setting already involves some publics

	Tänan	Da-wah-eh	Attö	Taibut
Wliwni ni	Aitäh	Kilissow	Dev borem korum	Wiyarrparlunpaju-yungu
Wliwni	Ole meheks	Dhannvaad	Komapsumnidä	Diolch yn fawr
Oliwni		Dannaba	Kamsahamnidä	Diolch yn fawr iawn
Mantiox chawe	Aitih	Shukria	Komawoyo	Diolch
Maketai	Aiteh	Miharbaanee	Kulo	Depelda mat doyut
Yuuminsame	Tehnän	Tuhaadee kirpaa hai	Kulo maluhlap	Depelda cala da mat doyut
Wapsaw	Abumgang	Tay'u'an	Kulo na maluhlap	Cala da mat doyut
Thawerapsaw	Abuimgang	Paylla	Baasee'	Djere dief
Gadda ge	Mudo	Yuspagrasunki	Anaa basee	Jerejef
Dankie	Akpe	Dyuspagrasunki	Tenki ya	Ndiyela
Baie dankie	Mudu, epenau	Diyus pagapusionqa	Tenkey	Enko
Ntyox teru'	Abui ngan	Diyus pagapusionqacheh	Dot nuet	Fikohulu
Seé	'Awa'ahdah	Anchata agradisyiki	Keyi tapon	En
Tsin'aen	Abora	Anchata agradisyikicheh	Shukur	ka
Iyayraykere	Medagse	Diuspagarasuni	S	or
Hioy'oy	Medawagse	Diuspagarapus	S	mo
Gui lah hui te ha	Takk	Pachi	V	ak
Gui lah hui mi a de	Takk fyri	Pachi	E	upe
Gui lah hui dui dui ma	Men	Mus	Seun	E seun
Ghu long khu me-ah	Tas		Se	O seun
Gu lah hu ma de	Mo		se	O se
Saeamat kimo	Mo		se	E se
Alfiila	Vinc		bo'otik	Dios bo'otik
Kano	Vinc		bo'otik	Dyos bo'otik
Kanobi	Vinc		bootiki'	Dios bootiki'
Tá	Kiito		dyos bo'otik	Hach dyos bo'otik
Alfilamoolo	Kiito		bo'otik	Yum bo'otik
Kanoomoolo	Pal		bolal	Ki' bolal
Kanopalamoolo	Kiito		tatk	Mis tatk
Ju falem nderit	Ab		sgha &ccedi;owattf	Sagha &ccedi;owattf
Faleminderit	A		cowattf	Çowattf
Faleminderit shumë	A	ox nan	manymak	Yo manymak
Biyän bolzün	E	Sibälaj maltiox	po yu	Eso po yu
Ondapandula unene	M	Cheri cha ai	quyanagh	Quyanagh
Amesegénallô	M	Pagui	halek	Igamsiqanagh
Amesegunalhun	To	Pagui shungulla	dishklen	Dishklen
Betam amesegénallô	Tanke wol	Dilusulupagui		
Quialva'	Tankeje	Yupaichani		
Ashoge	Tanke wol	Chyee zu thon ree		
Áshood	Graciis	Maururu		
Ihe edn	Jaaraama	Kashoonopihku		
Ahív'ee	A iagraama	Shukuria		

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