

NOAA Postdoc program 20th Anniversary



Communicating Climate Change: The importance of the big picture



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NOAA Postdocs are...



Smart



BEFORE



AFTER

Varied in approach, subject

Interdisciplinary by nature

Knowledgeable about the big picture

Excellent candidates for communicating science!

FRANK

PLACE YOUR BETS PLEASE

RACE COURSE

'afternoon Squire.
What can I do
you for?



HONEST ERN	
7/2	STRAW MAN
2/1	MISUNDERSTOOD
3/2	RED HERRING
5/1	CLAP-TRAP
3/2	GISH GALLOP
6/4	AMATEUR HOUR
5/2	HEADLINES

What are the ODDS on
"CLEAR COMMUNICATION"?

Politicized Science

Science gets politicized when scientific results *appear* to impact vested political, ethical or moral interests

New results are only seen in the public realm to the extent that they project onto the political/ethical/moral question



'Scientitized'* Politics

Politics get scientitized when advocates appear to debate the science in order to avoid debating the values that underly their positions (*coined by Dan Sarewitz)

Nothing to do with real scientific debate

'Science-iness' is used to make a case, not find the truth

Cherry-picking, strawmen, red herrings common

Consequences?



Good:

Scientific papers that project onto the *perceived* debate are easier to get into *Nature* or *Science*

More media coverage of your work

Bad:

Scientific papers frequently quoted out of context, distorted

Politics is not as nice as science

Scientists under much more public scrutiny

Media reports not generally accurate - “False Balance”, sensationalism, over-interpretation common

Public understanding decreases, trust in science erodes

Continual 'debate' about irrelevancies hinders serious discussion

Ethical Issues



Scientists have a responsibility to avoid public misuse of their work:

- avoiding sensationalism, over-extrapolated conclusions
- use/misuse for advocacy purposes?

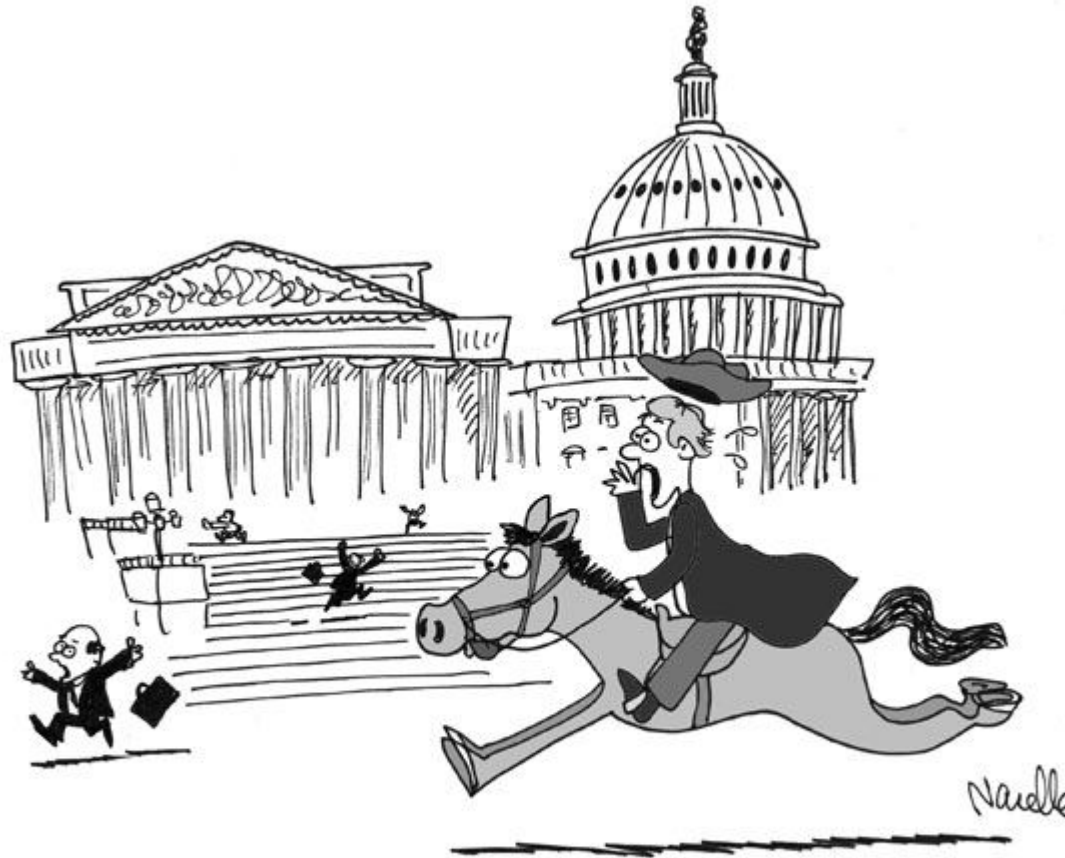
How much effort must scientists invest to improve understanding?

- press releases, interviews
- briefings for policymakers/journalists/lay public
- blogs/FAQs/Interactive Q&A etc.

Can we use the fake perceived debates to generate interest in genuine science?

- teaching moments or band-wagoning

Just the facts, ma'am...



The facts are coming! The facts are coming!

... are not enough

How can scientists cope?



First do no harm!

- do not allow publicists free rein in writing releases
- understand the context in which statements will be heard
- underscore what can (and what cannot!) be concluded

Distinguish personal opinions from 'consensus'

- Criticisms of other work = criticism of all work unless converse clearly stated
- Listeners do not distinguish between very well accepted and novel ideas

Provide accessible context outside technical literature

- blogs, websites, popular science articles

Try to defuse pseudo-debates – but don't ignore them

Listen to what people are saying

- why does a talking point have traction?

What works?



Personal stories

Why are you doing what you do?

Big picture, not technical details

What happened when you did it?

Talking about the scientific *process*, not results

Sources of credibility/trust

Good imagery (not graphs or words)

Photos/animations far more effective



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0

35











When in hole, stop digging!



Technical debates are not (publicly) interesting
Issues of free speech, secrecy, data access are!
Excessive advocacy can create backlash

- don't blur scientific opinions with personal preferences

Perceived attempts to shut down debate are frequently counterproductive

- Velikovsky's *Worlds in Collision*
- Suppressed "EPA" report

Some scientific stereotypes are best avoided

- arrogance, elitism, argument from authority

Conclusions

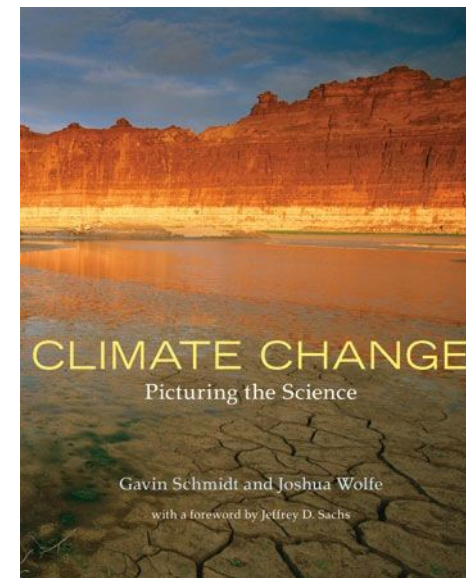


Big picture is easier to explain if you know what it is

You (NOAA Postdocs) have a big head start

You have good stories to tell and many resources to help you tell them

You can't do everything, but that doesn't mean you should do nothing



A modest proposal



Can we create a series of profiles of “Real Climate Scientists” from the NOAA Postdocs?

Why do you do what you do?

How do you do it?

Where does it fit?

What bothers you?

What excites you?

Benefits:

Feedback from more experienced alumni

Interaction with public (mostly positive!)

Higher profile, introduction to journalists/other media

Thoughts?

There is much work to do...

