



Language and mis-communication about climate change

Michael Burke

Professor of Rhetoric, University College Roosevelt [Utrecht University]

The Burke Kyiv Spring- Summer Lectures 2022 – Lecture 4

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Structure of the lecture

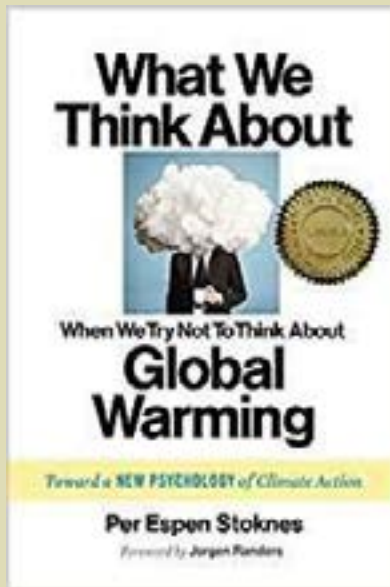
- 1. Prime examples of climate communication “failure”
- 2. How humans process information
- 3. Fear Appeals (pros and cons)
- 4. Framing & Reframing (highlighting the positives)
- 5. Questions & Comments

The science of climate change communication



- My claim ...
- Climate change is a very real problem but currently it is far too often being **miscommunicated**

Per Espen Stoknes



- “The more facts that pile up about global warming, the greater the resistance to them grows”
- "The trouble with mainstream conventional climate communication is that it rubs up against the psychology of our brain,"

1. Prime examples of climate communciation “failure”

Greta Thunberg



“How dare you?”!!!

“*emotional*”, “*angry*”, = “*offensive*”

UNITED NATIONS
HEADQUARTERS 23 Sep. 2019

<https://www.youtube.com/watch?v=TMrtLsQbaok>



Communicating Climate Change ... From climate **change** to climate **crisis**



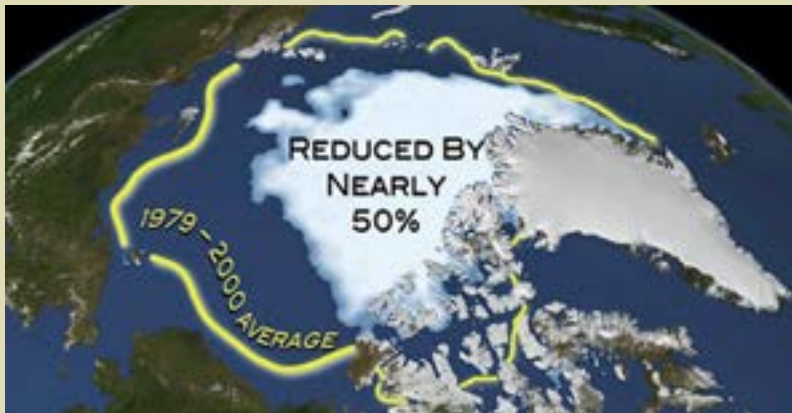
Dying polar bears



Panic, Now!!!!!!!!!!!!!!!!!!!!!!!!!!!!!!



Melting ice caps & Rising sea levels



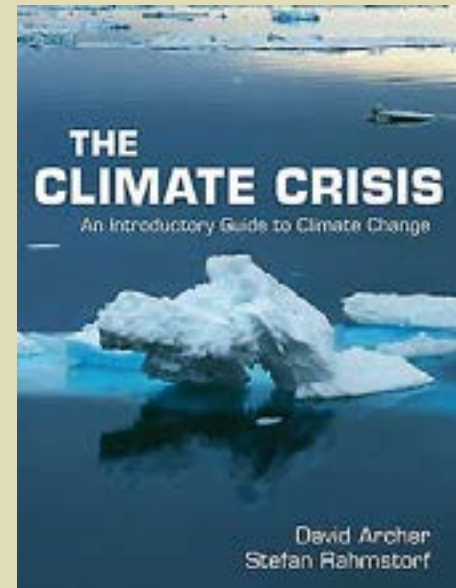
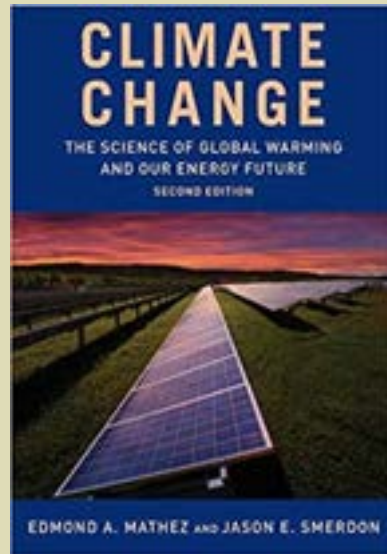
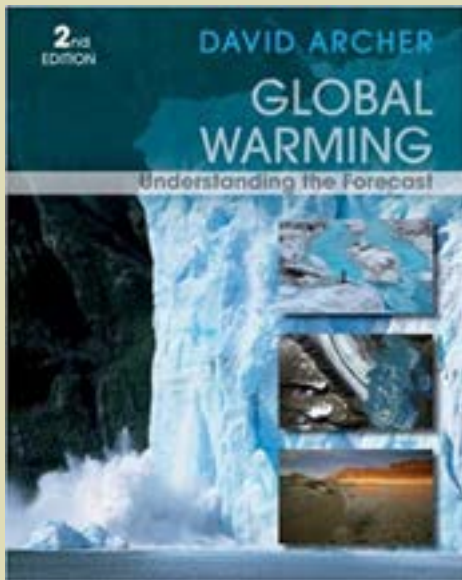
Floods and Fires



Sir David Attenborough posing with yet another dead polar bear



The shifting discourse in science



Technology & Science

- **Climate change is 'largest science communication failure in history' (CBS News, December 2015)**
- Most climate change scientists have been trying to convince people with actual science: evidence of melting glaciers, rising sea levels, endangered polar bears.
- Experts hope painting a grim picture of the future will get people to change their behaviour. But for many of us, it may actually do the opposite.
- **Climate change vs Human nature**

2. How humans process information

Differing theories

- **Rational (conscious) theories** say that we make rational, logical choices (*e.g. Aristotle and 'expectancy value theories'*)
- **Emotional (unconscious) theories** ... say that we 'reason' with emotion and rationalise after the event (*e.g. Bargh 2006, Weston 2007, Kahneman 2010*)
- **Two systems theories** ... say that when it comes to persuasion there are two components operating -- One part is automatic, unreflective decision-making – while the other is from a more rational and reflective decision maker (*see Petty & Cacioppo 1986, 1996; Thaler & Sunstein 2008; Kahneman 2011*)

A two systems theory ---

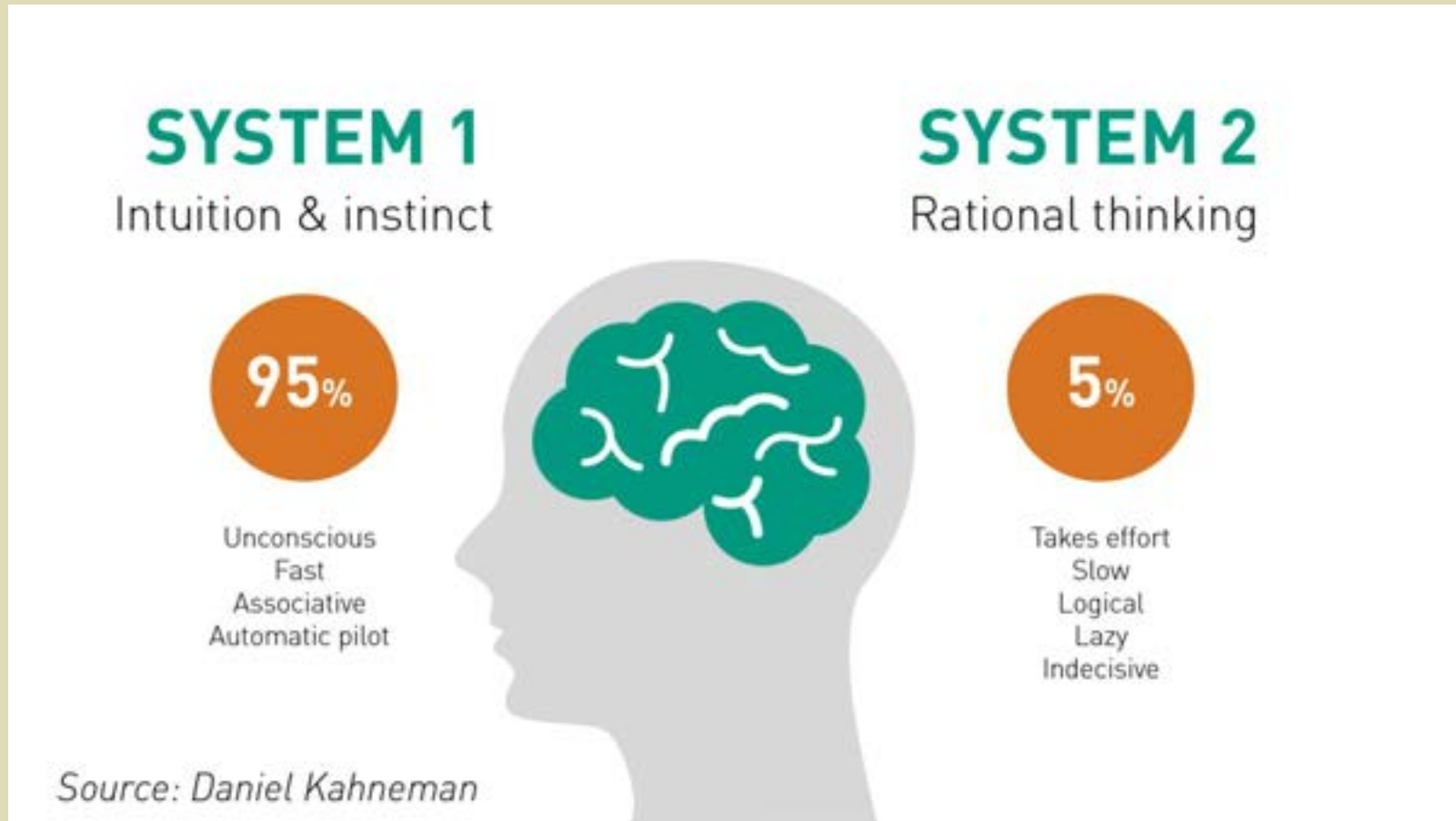
The elaboration likelihood model

- Petty & Cacioppo (1986, 1987) -- There are **central** and **peripheral** routes to persuasion
- **Central processing**
 - Greater elaboration of thoughts
 - Such people/processers ask probing questions, they generate additional arguments, they seek new information, etc.
 - If you are persuaded after such mental labour, then you tend to be resistant to counter-arguments later
 - Attitudes formed or changed are more easily recalled
 - Both motivation and ability are necessary i.e. not everyone can engage in central processing

The elaboration likelihood model

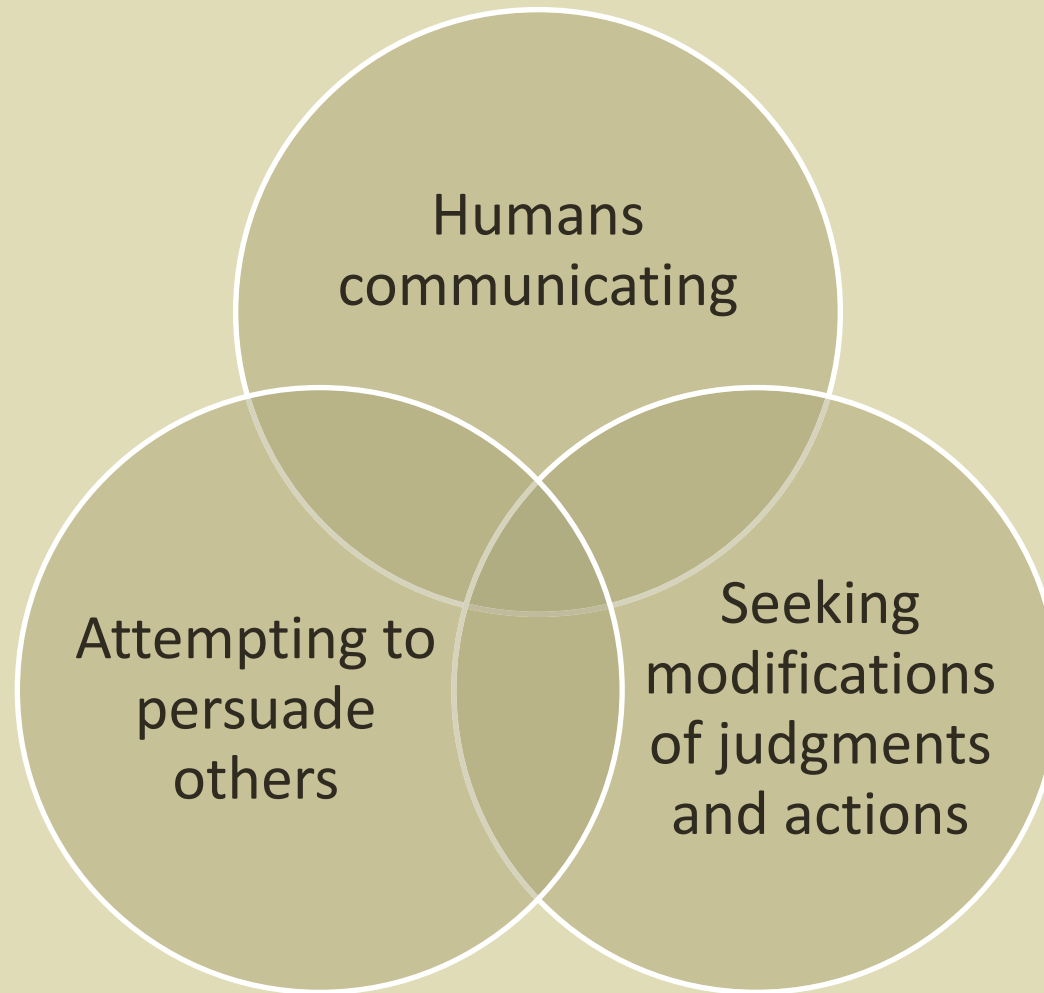
- **Peripheral processing**
 - Impossible to process information centrally all the time
 - Peripheral processing involves *cognitive shorthands* called *heuristics*
 - Peripheral processors are persuaded at a surface level, e.g. by a free gift, a good looking salesperson, the appeal of a celebrity, etc.
 - Evolutionary (fight or flight) advantages?
- **Central and peripheral processing are not mutually exclusive – often they operate in combination**

Kahneman (2011) Thinking fast and slow

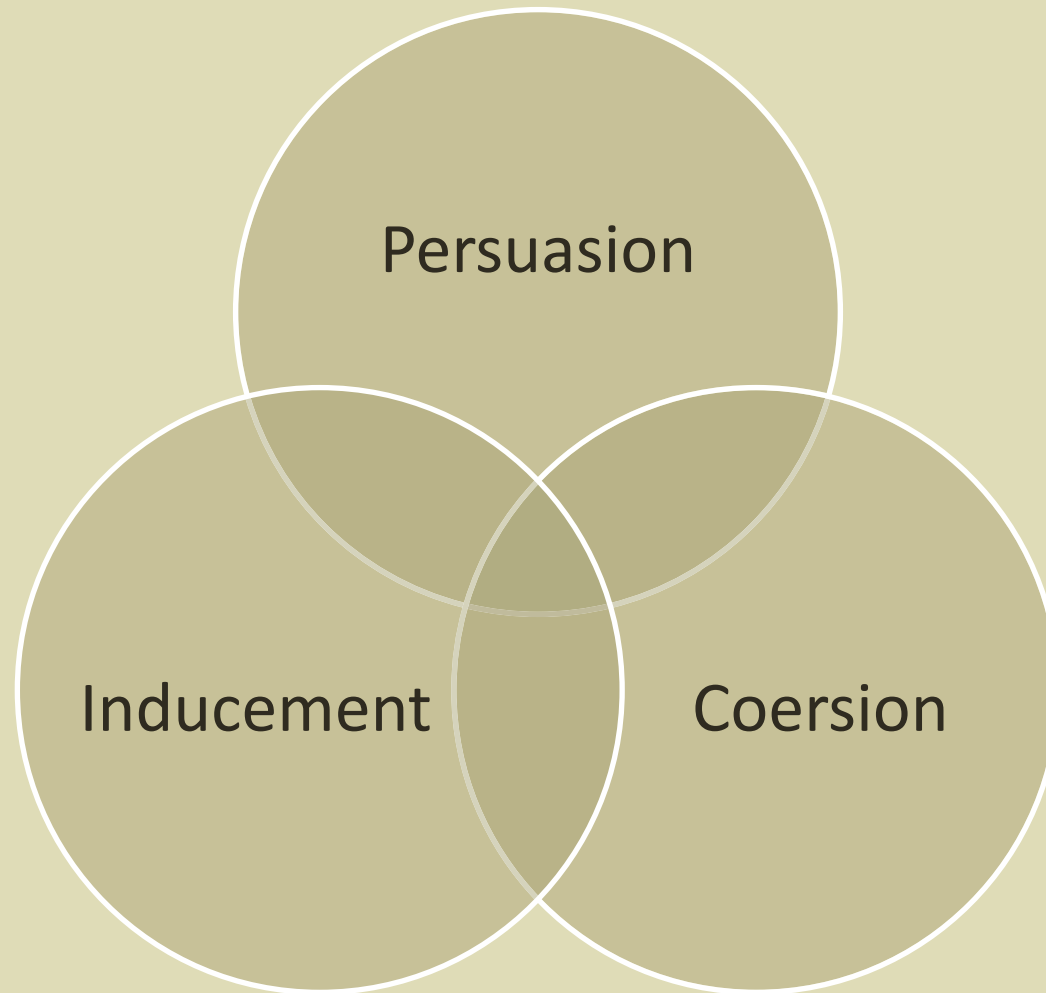


3. How are humans persuaded?

Defining features of **persuasion**



What is and what isn't persuasion



Persuasion by degrees: Adapting to different audiences

- Researchers tend to relate persuasion with attitude change (*though shifts in underlying beliefs and values is also important*)
- Miller's (1980) "Threefold classification" "Persuaders may succeed in (a) **shaping**, (b) **reinforcing**, or (c) **changing** a response

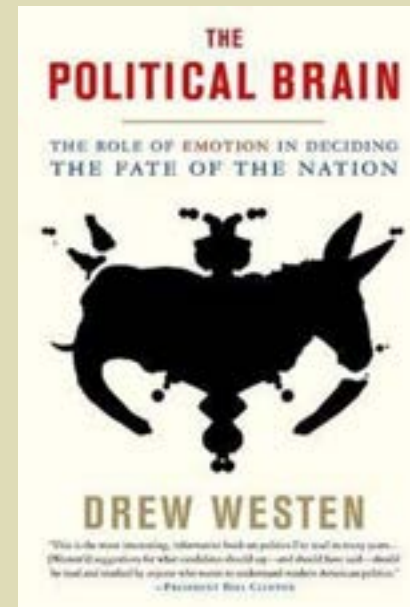
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Persuasion by degrees: Adapting to different audiences

- 1. **Response *shaping***
 - Occurs when people acquire new beliefs on controversial matters or when they are socialized to learn new attitudes or acquire new values
- 2. **Response *reinforcing***
 - Involves strengthening currently held convictions and making them more resistant to change
- 3. **Response *changing***
 - Involves a wholesale shift of position. Very seldom indeed
 - More often happens in fits and starts rather than a wholesale one-shot conversion
 - Being persuaded is hardly ever a one-message proposition

The role of emotion in persuasion

- When faced with evidence which goes against something people believe in, they sometimes seek confirmatory evidence in favour of prior beliefs (**confirmatory biases**)
- These biases are located in emotive areas of brain (not rational areas) = biases driven by emotions (*see also Shermer 2006*) = “Emotion trumps reason”
- Even well-reasoned rebuttals do not work



Persuasion as a learning process

- (The deli counter - cheese - example) ... (Influence techniques)
 - 1. Acquiring new information
 - 2. Getting incentives to act
 - 3. Making favourable associations
- “Training” the customer to buy the cheese
- Persuasion and incentives (*using positive reinforcements = operant conditioning*)
- Operant conditioning works by rewarding desired behaviour and withholding rewards (*and maybe even using punishments*) until the desired behaviour is forthcoming

3. Fear Appeals (pros and cons)

Fear Appeals

- “Fear appeals are messages that try to persuade people about the potential harm that may happen to them if they do not accept the messages’ recommendations” (*Tannenbaum et al., 2015*).
- “Message targetting” crucial (e.g. drink driving campaigns, breast cancer campaigns, etc.)
- Simply frightening people is not so effective – People need to be instructed as to what to do

Fear Appeals

What are fear appeals and how do they work?



Political Fear appeals – UKIP (& the Brexit campaign)



26 million people
in Europe are
looking for work.

And whose jobs
are they after?

© PA

TAKE BACK
CONTROL OF
OUR COUNTRY



VOTE UKIP
23RD MAY

ukip.org



IMMIGRATION IS THREE TIMES HIGHER THAN THE TORIES PROMISED.

THE ONLY PARTY YOU CAN TRUST TO REDUCE IMMIGRATION

 BELIEVE
A MESSAGE

Political fear appeal ... “Brexit”



Fear appeals

Life insurance

Mozilla Firefox
http://c5.zedo.com/ads2/f/747319/3840/0/0/305004460/305004460/3051200/zz-v2

AccuQuote

**If you died today,
who would take care of your family?**

10-Yr Level Term	age	male	female
Life Insurance	40	\$20.55	\$19.20
\$500,000 Policy	45	\$21.25	\$20.90
(Monthly Premiums)	50	\$44.40	\$28.70
	55	\$76.24	\$51.82

Get A Free Quote!
Click Here

Driving responsibly

Hit at 40mph
there's a 70% chance I'll die.

Hit at 30mph
there's an 80% chance I'll live.

That's why it's **SEAT BELT 30** **DOT**

Positive? fear appeals

Alcohol and obesity



Habitat destruction



Positive? fear appeals

The dangers of second hand smoke for our children's growth



A climate change fear appeal



Are fear appeals productive or counter-productive?

- *Psychology Today* -- Fear Appeals September 18, 2018
- [Shoba Sreenivasan, Ph.D., and Linda E. Weinberger, Ph.D.](#) (Reviewed by Lybi Ma)
- “There is some difference in opinion as to whether “fear appeals” are productive or counterproductive. For example, if the message is so extreme, instead of being influenced by it, the audience could ignore the information altogether. In essence, the fear depicted in the message is so great that rather than deal with it, people stop listening, viewing, or reading it. In such situations, they might also criticize the nature of the message and then use self-justification for not modifying their attitudes and behaviour; especially, if they discuss the fear appeals with others” (Goldenbeld, Twisk, & Houwing, 2007).
- “There is also the possibility that arousing fear could result in a defensive response or “risk denial” particularly, among those who are most susceptible to the threat (Ruiter, Kessels, Peters, & Kok, 2014).

“Why bother?”

- “... the fear depicted in the message is so great that rather than deal with it, people stop listening, viewing, or reading it”
- Goldenbeld, Twisk, & Houwing, 2007



Are fear appeals productive or counter-productive? 1/2

- *Psychology Today*
- [Shoba Sreenivasan, Ph.D., and Linda E. Weinberger, Ph.D.](#)
(Reviewed by Lybi Ma)
- **Fear Appeals** September 18, 2018
- Fear alone does not change behavior. We may learn that certain behaviors we engage in are potentially harmful and have now become fearful; yet, we still engage in the harmful behaviors ([Tannenbaum et al., 2015](#)).

Are fear appeals productive or counter-productive? 2/2

- (Tannenbaum et al, 2015).
 - There is a maximum effective value of fear. Once a moderate amount of fear is conveyed, there is no further benefit in adding more fear
 - Fear messages that let the audience know they can perform the recommended behavior or that the behavior will have a positive result are more effective than fear appeal messages without mention of recommended actions
 - Fear appeals that recommend one-time behaviors are more effective than appeals that recommend repeated behaviors\
 - Fear appeals are more effective for women because women tend to be more “prevention-focused” than men

4. Framing & Reframing (highlighting the positives)

What is a “frame”?

- A “frame” is one among a number of possible ways of seeing something, and a “reframing” is a way of seeing it differently; in effect changing its meaning
- Frames are often rooted in figurative language, most commonly, metaphor.
- e.g. “Education” --- ‘A factory’ vs ‘A Garden’ ... (or ‘a roller-coaster’)

A type of frame

- **Argument frame:** debating one reality, but seeing it differently
 - *Glass half full or half empty?*



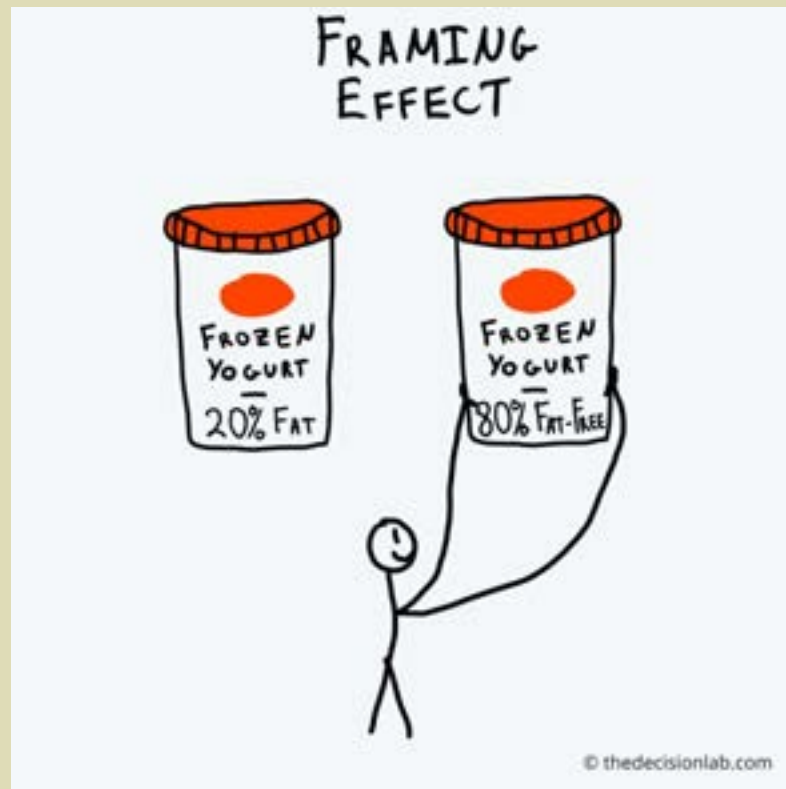
Framing (& Reframing) – Manipulation?

X The Mobile Spoon **✓**

The image illustrates two different ways to frame the same product: a spam blocker. Both screens show the product name 'Spam Blocker', the price 'For only \$290', and a green 'Buy' button. The left screen, marked with a red 'X', frames the product as 'Only 4% Spam'. The right screen, marked with a green checkmark, frames the product as '96% Spam Free'. The text 'The Mobile Spoon' is centered between the two screens.

Screen	Product Name	Key Feature	Price	Call to Action
Left (X)	Spam Blocker	Only 4% Spam	For only \$290	Buy
Right (✓)	Spam Blocker	96% Spam Free	For only \$290	Buy

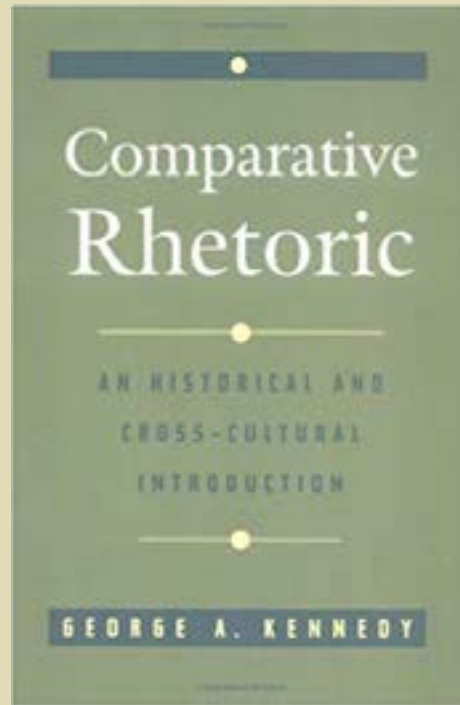
Research on frames and reframes (Kahneman & Tversky 1984)



Choosing the right frame

- Find out the Values/Morals
- US Republicans (in-group loyalty, respect for authority, purity, etc.)
- US Democrats (fairness, reciprocity, doing no harm in determining what is moral, etc.)
- If you are a Democrat trying to persuade a Republican about environmental issues do you
 - (a) talk about pollution wreaking havoc on the environment OR
 - (b) talk about the importance of keeping our forests, water and environment pure

Remember – Culture matters!
When framing “Know thy audience”



Refaming climate change – The Positives!

(no more fires, floods and melting icecaps)

- <https://www.ucsusa.org/resources/benefits-renewable-energy-use>
- **Benefits of Renewable Energy Use** - Published Jul 14, 2008 --- Updated Dec 20, 2017
- **1. Saving money**
- Renewable energy is not only good for the environment, but also for our budgets. It will save us money, ... money that we can spend on the things we like for ourselves and our loved ones
- **2. Jobs and other economic benefits**
- Compared with fossil fuel technologies, which are typically mechanized and capital intensive, the renewable energy industry is often more labour intensive – meaning, in the long run, more jobs

Refaming climate change – The Positives!

(no more fires, floods and melting icecaps)

- **3. Stable energy prices**
- Renewable energy can help stabilize energy prices in the future and provide reliable and affordable energy bills unlike gas and oil

- **4. Improved public health**
- The air and water pollution emitted by coal and natural gas plants is linked with breathing problems, neurological damage, heart attacks, cancer, premature death, and a host of other serious problems. Most of these negative health impacts come from air and water pollution that clean energy technologies simply don't produce. Wind, solar, and hydroelectric systems generate electricity with no associated air pollution emissions

Refaming climate change – The Positives!

- A better future for us, our children and our grandchildren and their children



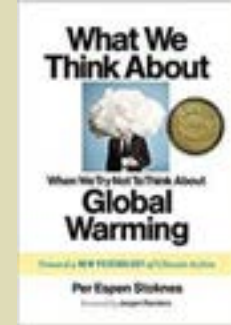
In conclusion ...

The science of climate change communication



- My claim ...
- Climate change is a very real problem, but currently it is far too often being miscommunicated
- Solution (an interdisciplinary / multidisciplinary approach)
- **i.e. MORE HUMAN NATURE!!!**
- More humanities & social sciences involvement in climate matters
- Not just science and technology alone ...

Per Espen Stocknes



- “Most scientists have been trying to convince people with actual science. But evidence of melting glaciers, rising sea levels and endangered wildlife evoke doomsday scenarios that are just too big for people to handle”
- "Typically it creates a feeling of distance,"
- “Unless we see it as an attractive story giving meaning, we oppose the rational solution. So that's where the psychology come in.”
- “The only way to convince people to act is to forgo much of the doom and gloom and instead paint a more positive picture of a green future”
- In short, “Tell nice stories” & become positive, persuasive **charismatic** storytellers ...

Selected (main) references

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Thank
you