



Storytelling in Climate Change Communication

Els Aarts

Science Education & Communication

Utrecht University & KNMI

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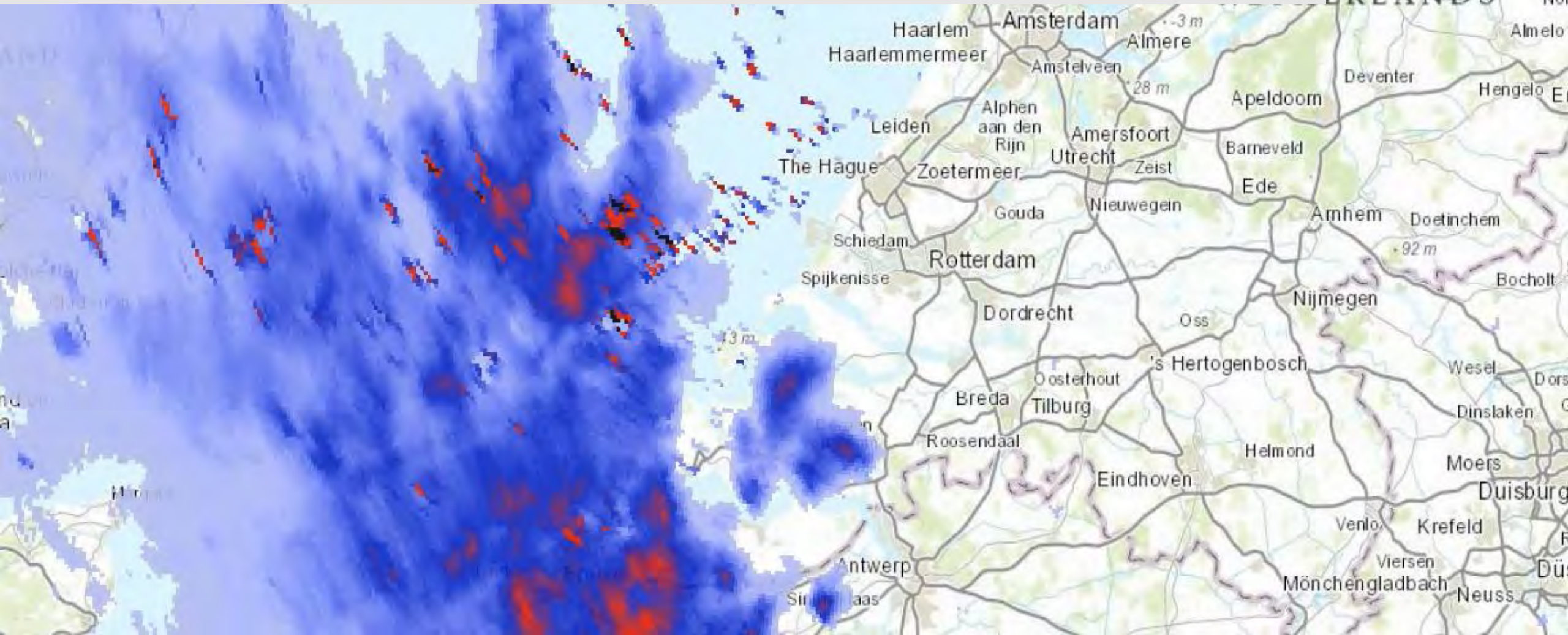
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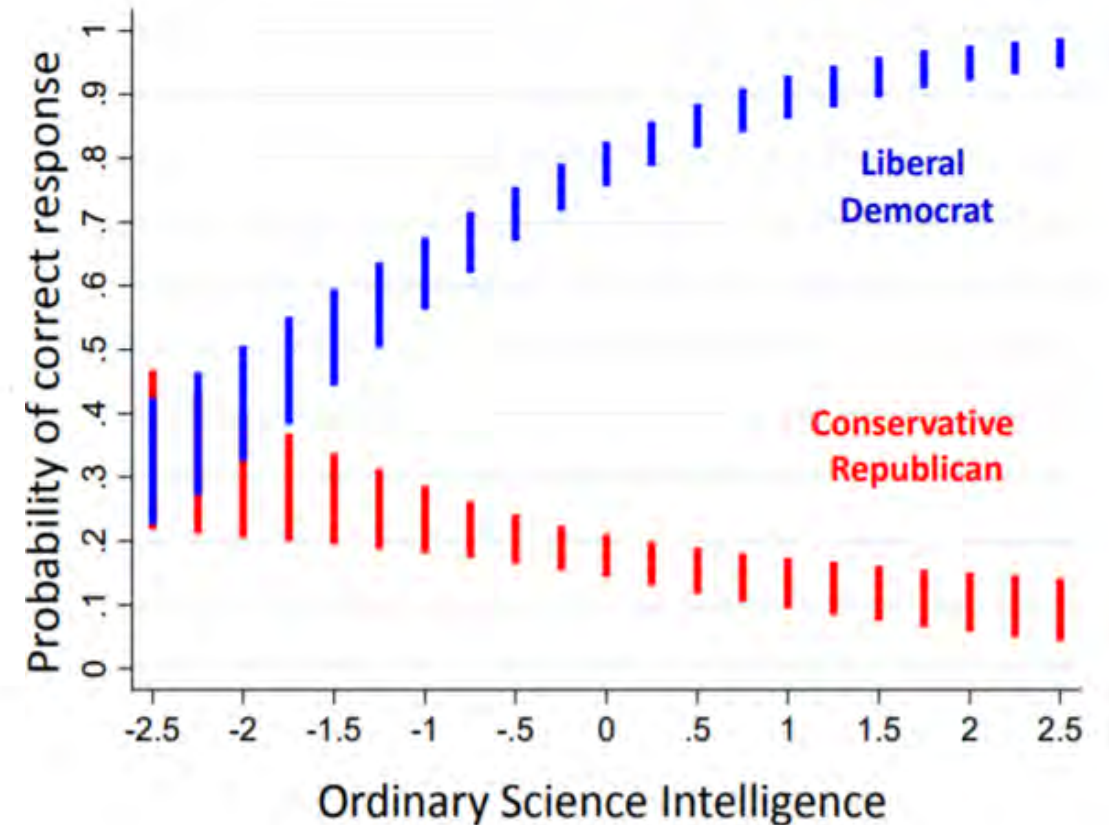
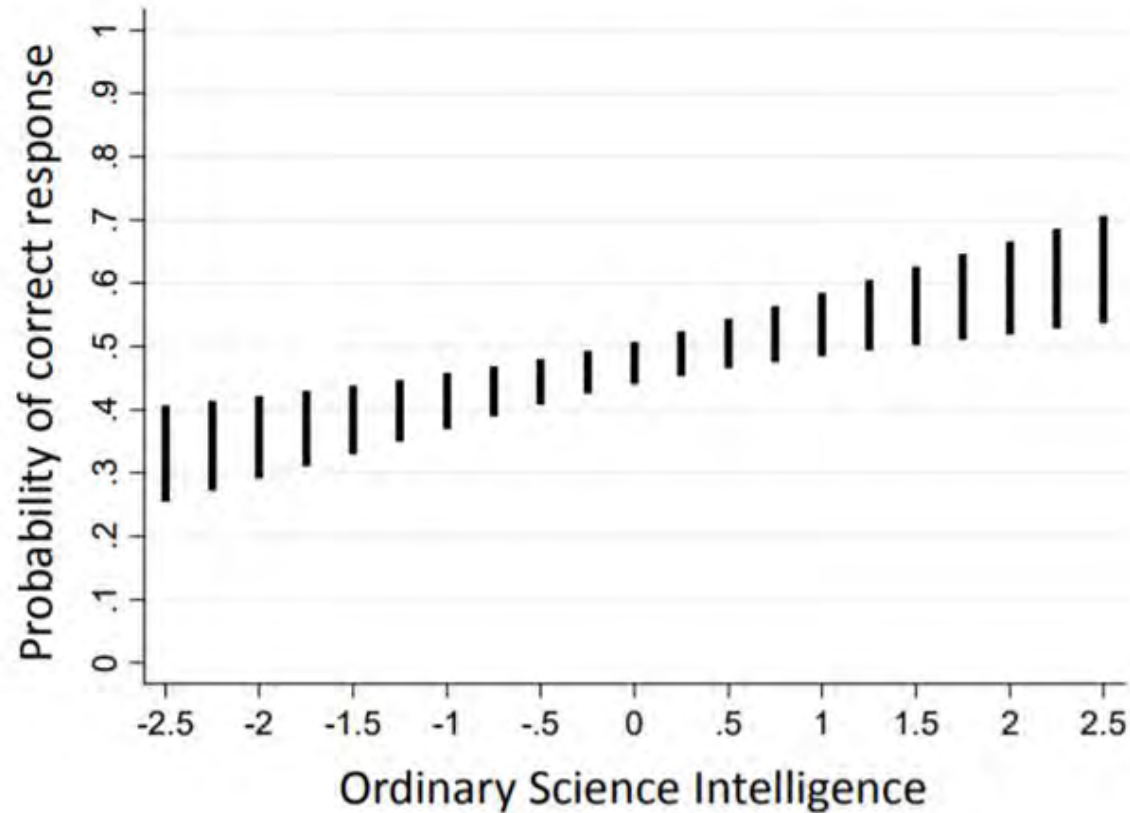
How to Use Storytelling in the Climate Scenarios?



Beliefs do not Depend on Education

(Kahan et al, 2012)

“[Is the earth] getting warmer (a) mostly because of human activity such as burning fossil fuels or (b) mostly because of natural patterns in the earth’s environment?”



Why would stories work?

- Narrative transportation
- **Congruence / incongruence**
- Narrator trust

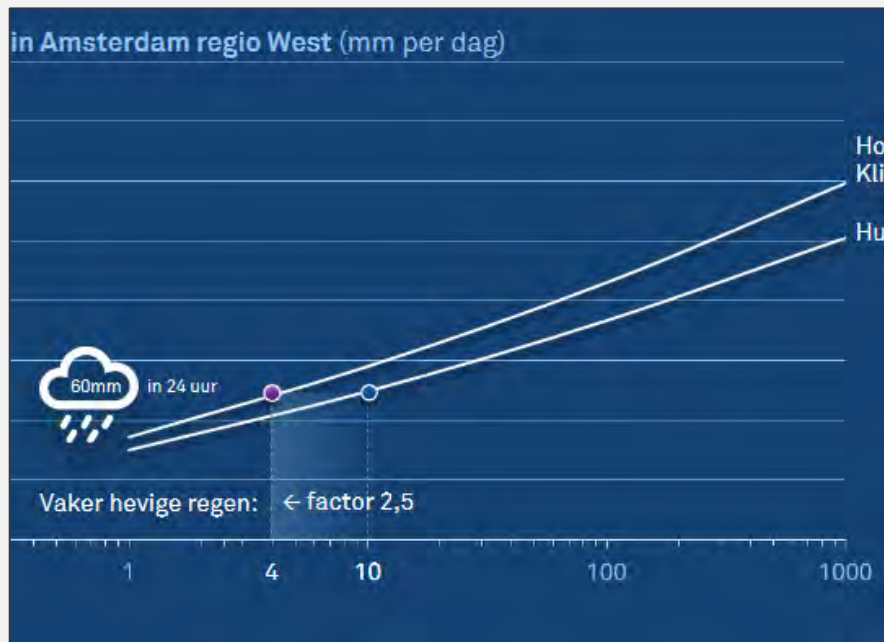
Focus on congruence

Once Upon a Time...

What is a story?

- Setting/context
- Temporal element
- Characters
- Moral or policy solution

Narrative Policy Framework, 2010.



3 Stories About Climate Adaptation

1 control text

Cultural Theory



Methodology

Survey, 336 respondents.

166 Egalitarians (EG)

72 Hierarchists (HR)

46 Individualists (IND)

8 Fatalists (FAT)

44 Doubles

(EG-HR or HR-IND)

- Exploratory study, $p < 0.1$

Individual Cultural Type		Cultural Story Frame
Egalitarian		Control List
		Egalitarian Story
	X	Individualist Story
		Hierarch Story
Individualist		Control List
		Egalitarian Story
	X	Individualist Story
		Hierarch Story
Hierarch		Control List
		Egalitarian Story
	X	Individualist Story
		Hierarch Story

Research Questions

1. Do respondents score differently on *understanding*, *risk perception* and *action perspective* after having read one of the four texts?
2. Why do respondents favour certain stories?
3. Does using stories influence the KNMI's credibility?



RQ1: Type x Story

	Mean match	Mean non-match	P value
Understanding	1,87	2,10	.579
Risk perception	5.33	5.55	.575
Self-efficacy	4.93	4.91	.759

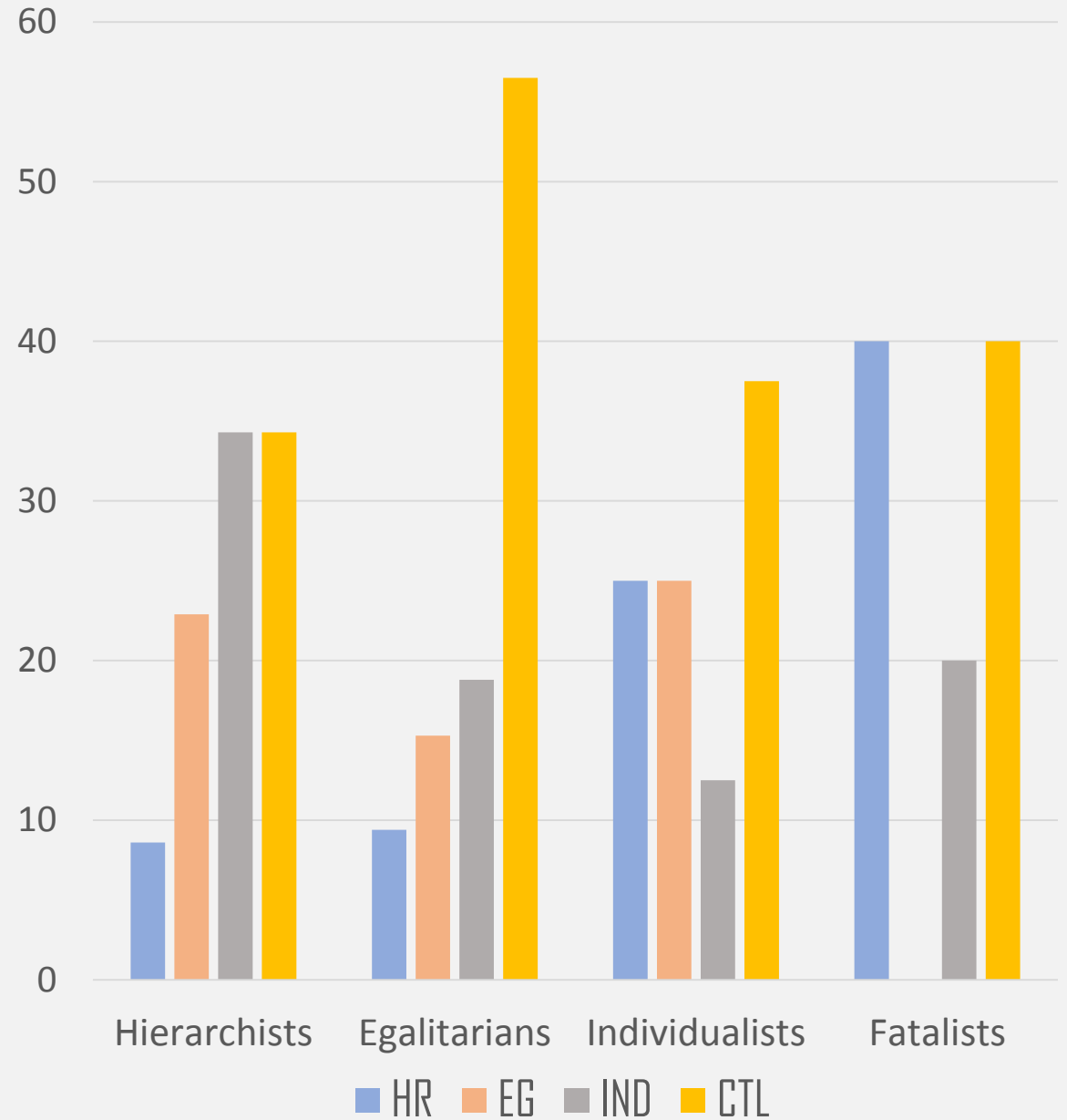
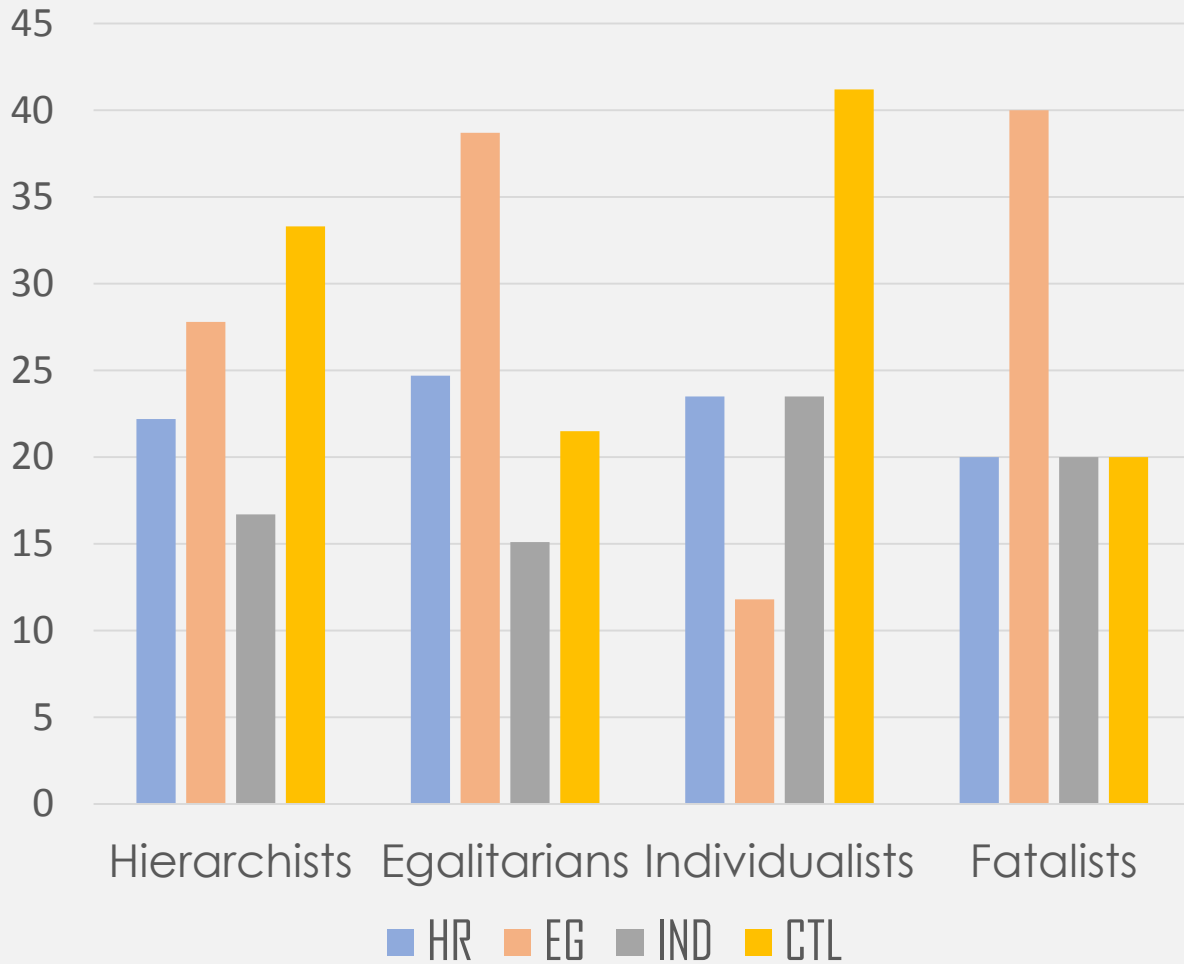
RQ1: Control vs Story

	Control group	Story group	p value	Effect size d
Understanding	2.21	1.92	.012	.23 (small)
Risk perception	5.45	5.48	.181	-
Self-efficacy	4.55	5.00	.082	.30 (small)

Also: Hierarchist story influences risk perception more than Egalitarian and Individualist story.
($p = 0.069$ & $p = .010$)

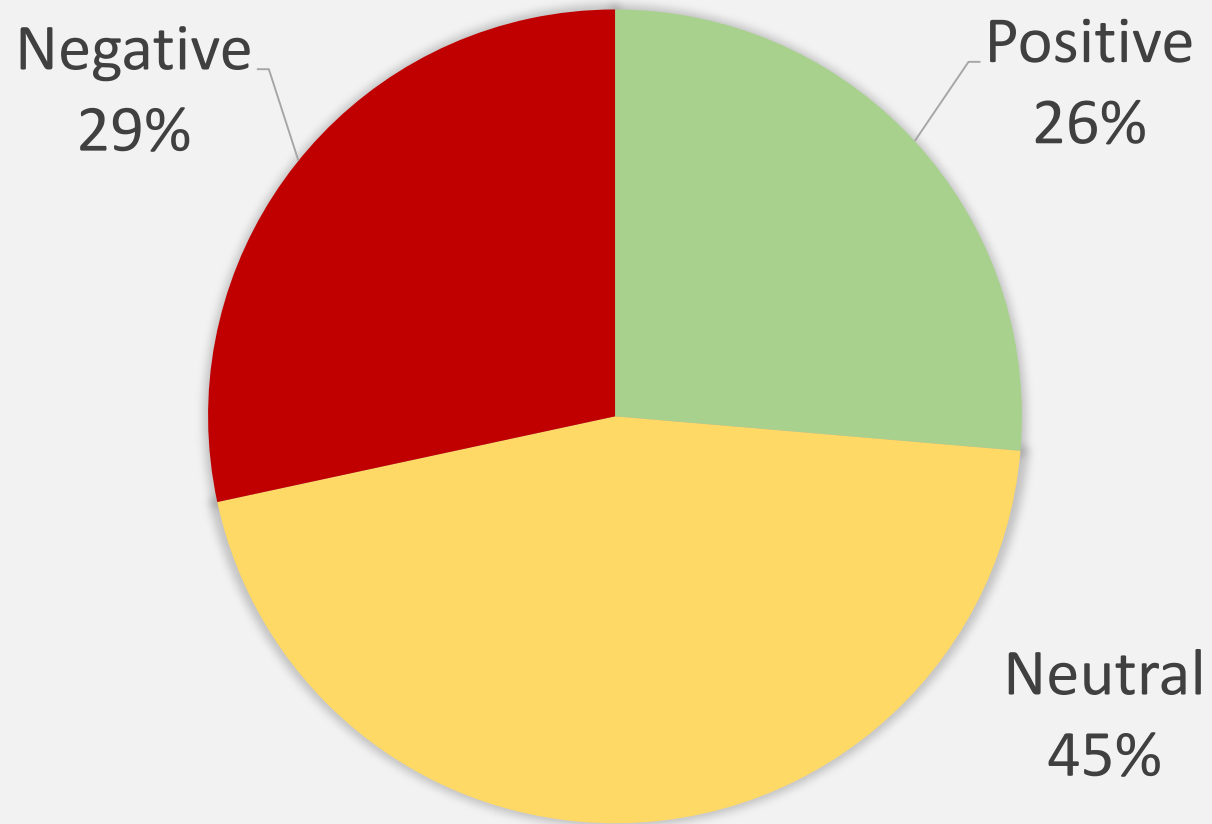
RQ2: Story Preference

Favorite and least favorite story per type, percentual



RQ3: Credibility

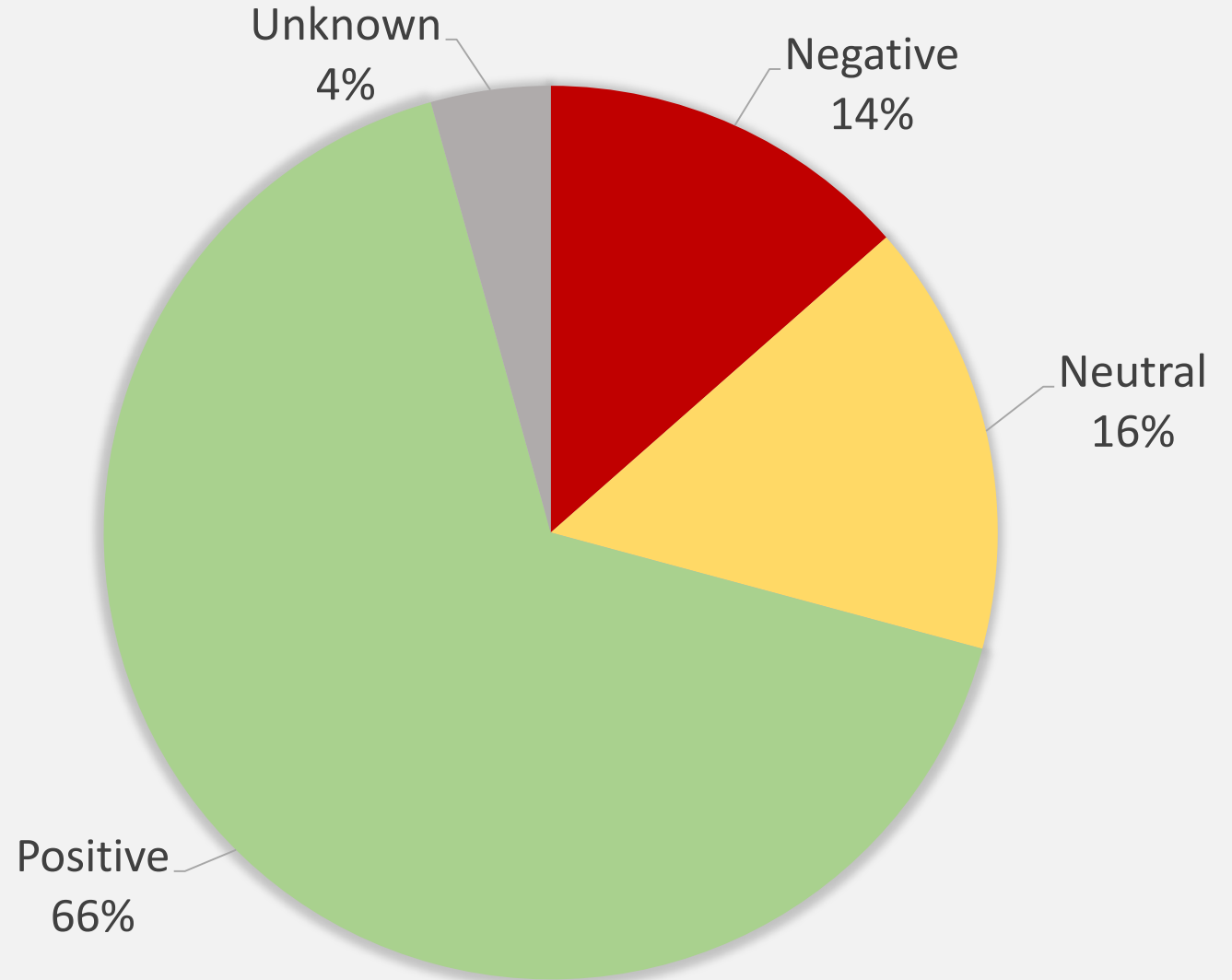
Opinion: does using stories harm the KNMI's credibility?



Opinion on using stories to communicate climate change.

Respondents that report the KNMI as less credible, also are more negatively opiniated about using stories.

“haters gonna hate?”
(respondent 23)



Conclusions and Recommendations

- No 'match' effect found.
- Relation Type and Story preference exists.
- Hierarchist story is liked best on average in all groups, and invokes a higher risk perception.
- Most respondents say stories have either a positive or no effect on credibility of the messenger.
- Consider using a story next to the control text.



Questions or Closure

