

Food Risk Communication

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Public perceptions and attitudes – key questions

- What is driving consumer **perceptions** of **risk** and **benefit**?
- Who **trusts** whom to inform and regulate? How does this relate to **consumer confidence** in the food chain and associated science base?
- Are there **cross-cultural** and **intra-individual differences** in perceptions and information needs?
- How might the wider public be involved in the debate about **risk management** and **technological development**?
- How do related factors (**ethics, wider value systems**) relate to perceptions of risk?
- How do the public react to information about **risk uncertainty and risk variability, and emerging risks**?



Focus Groups: consumers and experts

■ Consumers & Experts

- N=108; Denmark, Greece, Germany, UK, Slovenia
- *Consumers: perceptions of how well risks were managed & trustworthiness of different actors*
- *Experts: extent they agreed with consumer statements related to food risk management concerns*

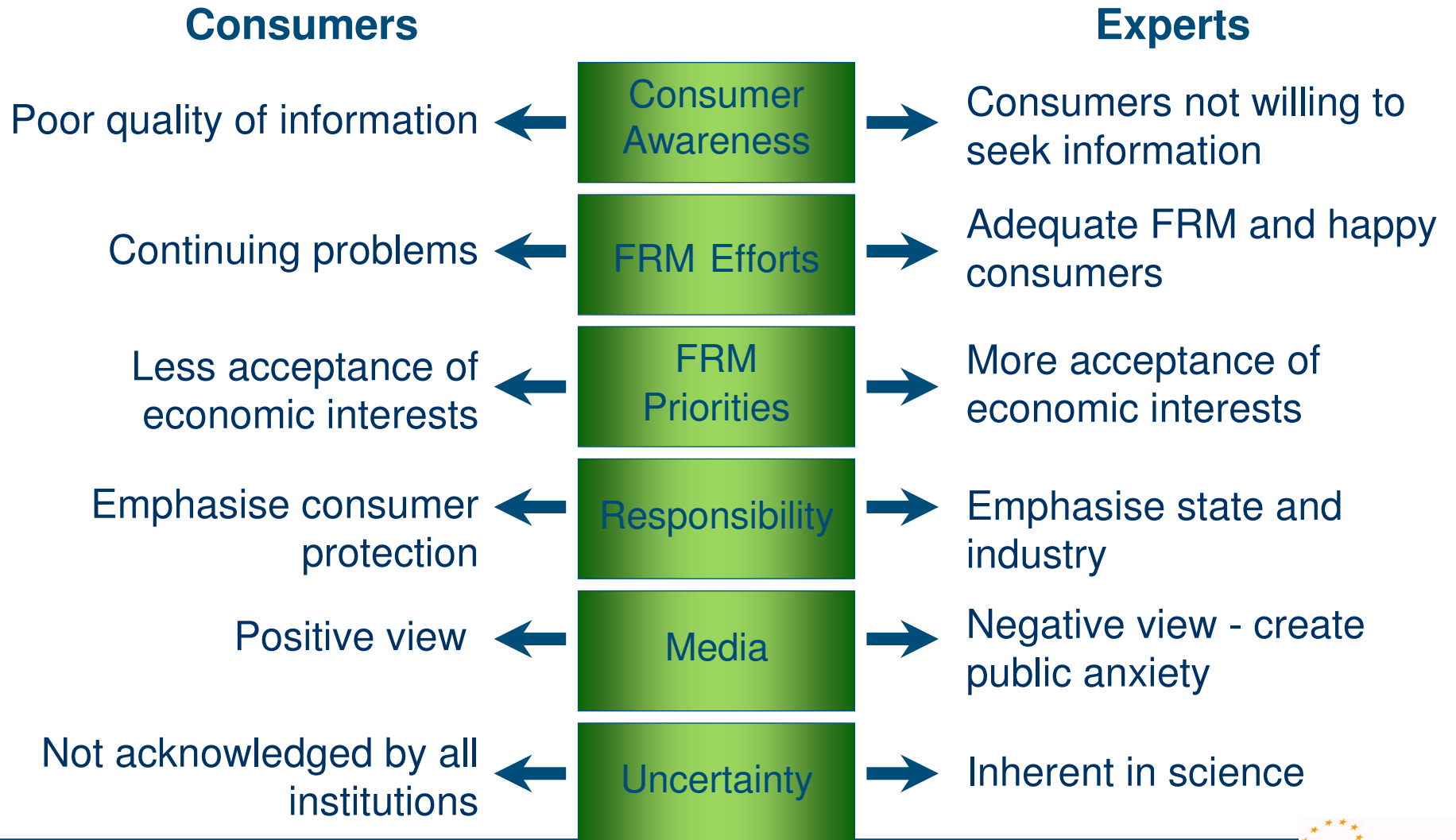


■ Follow-up Telephone Interviews

- N=71; Denmark, Greece, Germany, UK, Slovenia
- *Consumers were presented with expert statements on food risk management and experts were asked to respond to several consumer statements*



Consumers & Experts: A Perceptual Divide



What determines good food risk management from a consumer perspective?

- Communication priorities
 - Proactive consumer protection
 - Transparent risk management
 - Transparent risk assessment and risk communication practices
 - Trust in expertise of food risk managers
 - Trust in honesty of food risk managers

What determines good food risk management from a consumer perspective?

- Results of focus groups
 - Proactive consumer protection
 - Transparent risk management
 - Scepticism regarding risk assessment and risk communication practices
 - Trust in expertise of food risk managers
 - Trust in honesty of food risk managers

Case Studies: Overview

Semi-structured interviews →

Cases (N=206)	<i>“Crisis” incident</i>	<i>Low impact incident</i>
Germany	BSE	Nematodes in fish
Norway	E.coli	Salmon
UK	BSE	Salmon
Greece	Avian influenza	Yogurt/ Honey

Case studies – conclusions

- **Preventative** risk management measures important
- **Transparency** in risk analysis
- Communication of **uncertainty** and **variability**
- **Expertise** is essential component of effective risk management
- **Emphasis on rapid responses** to contain food safety incidents if they occur
- Communication of actions taken to **improve future consumer protection** (institutional learning and preparedness)

Communication about risk management practices and consumer confidence

Regulatory enforcement

Consumers perceive risks to be well managed when they perceive

- Measures for controlling risks are in place
- Risks are perceived to be managed proactively

Trust

Consumers trust the authorities when they communicate

- Uncertainty
- Variability

Hazard type

- Trust higher for *natural* hazards
- Trust lower for *technological* hazards



Information experiments: experimental design

- Representative sample of consumers

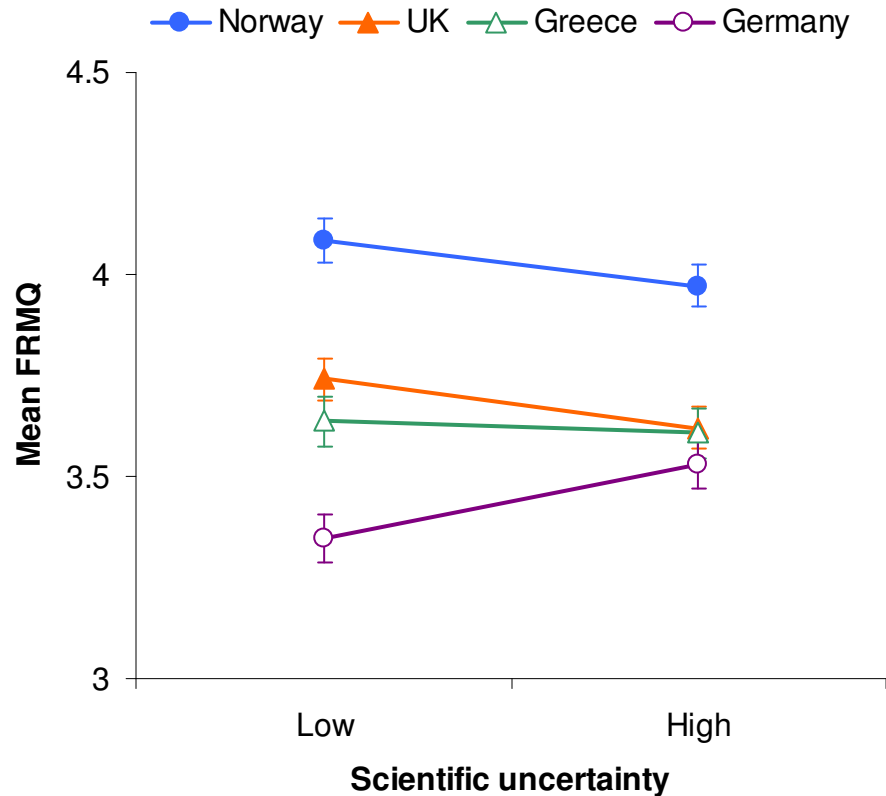
- Germany (n=1,796)
- Greece (n=1,604)
- Norway (n=2,273)
- United Kingdom (n=2,279)

Independent variables

- Hazard type (**Mycotoxins, GM potato, Pesticide Residues**)
- Proactive risk management implemented (**Yes/No**)
- Regulatory enforcement (**Yes/No**)
- Uncertainty acknowledged (**Yes/ No**)
- Population level variability acknowledged (**Yes/No**)



Impact of information about regulatory enforcement by country



Norway

- Trust authorities

Germany

- Low trust in authorities
- Improved if information about risk uncertainty is provided

Information experiments- conclusions

- Impact of communication about risks and associated FRM practices depends on
 - *cultural context*
 - *hazard characteristics*



The case of fish consumption – Variability....

“Although a rich source of n-3 polyunsaturated fatty acids (PUFAs) that may confer **multiple health benefits**, some fish contain methyl mercury (MeHg), which may harm the developing fetus. U.S. government recommendations for women of childbearing age are to **modify consumption** of high-MeHg fish, while recommendations encourage fish consumption among the general population because of nutritional benefits”

Cohen et al, Am J Prev Med. 2005 Nov;29(4):325-34.



....and uncertainty

“Long –chain fatty omega -3 fatty acids found in fatty fish and fish oils **do not** have a clear effect on total mortality, combined vascular events, or cancer”

Hooper et al, British Medical Journal, March 2006

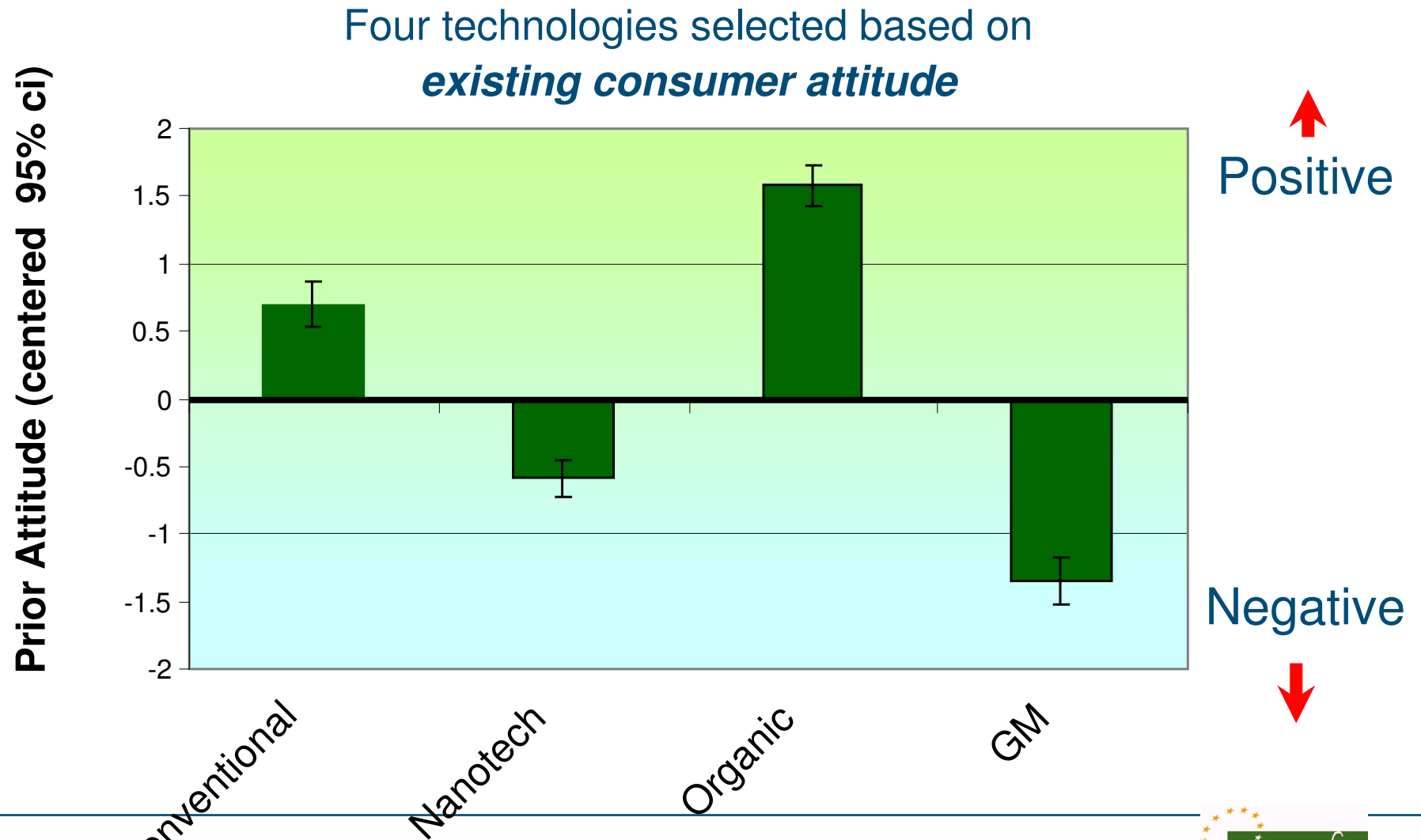


Effects of risk and benefit information on public perceptions of risk

- Information
 - Risk *or* benefit Risk *and* benefit
 - No information (control)
 - **Health**
- Prior attitude/knowledge
 - Positive, neutral, or negative
 - Strong or weak



Risk-Experiment: Prior Attitudes



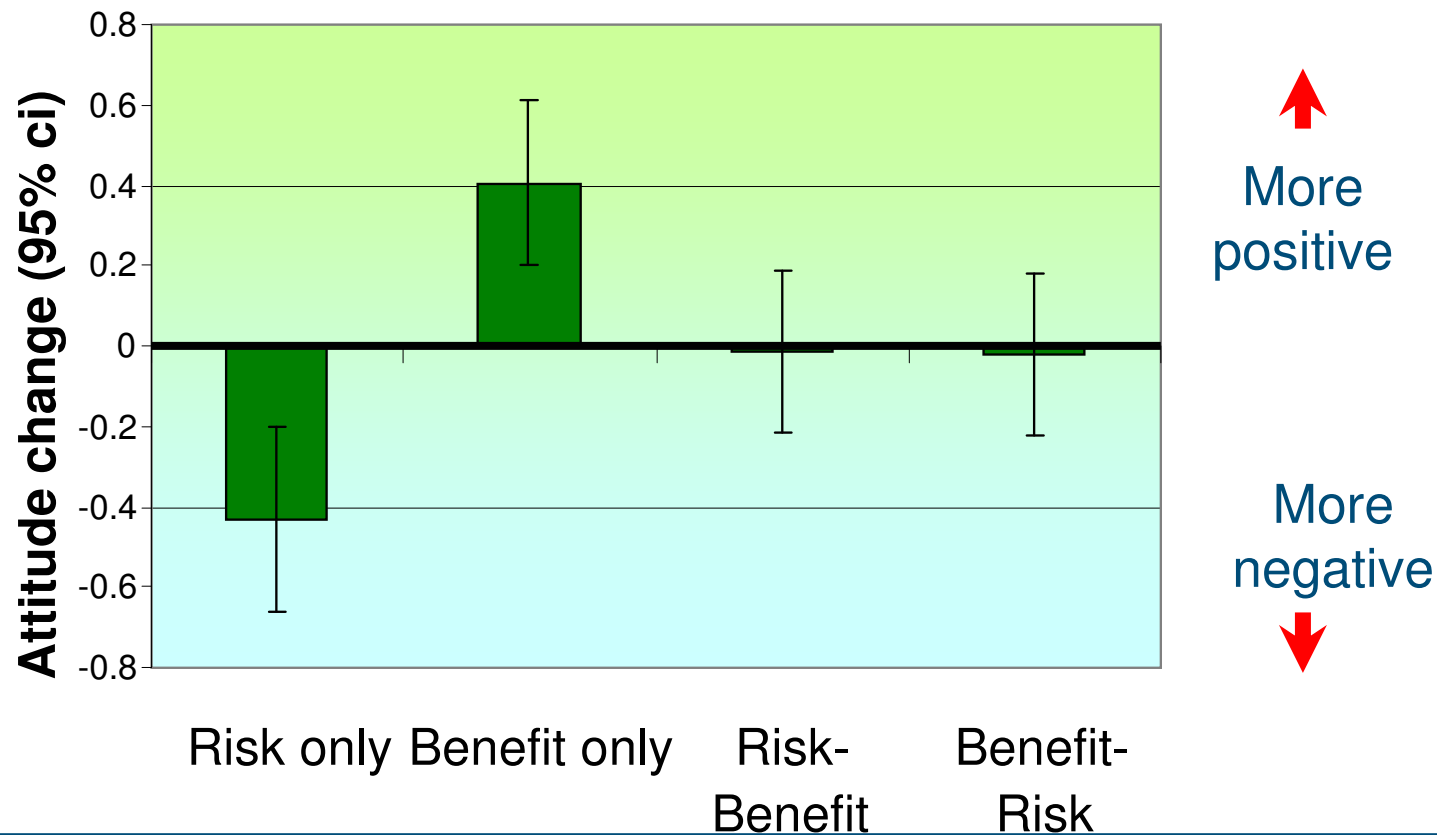
Experiment Design

- **Experiment** (N=360, UK)
 - Health risk and/or benefit information

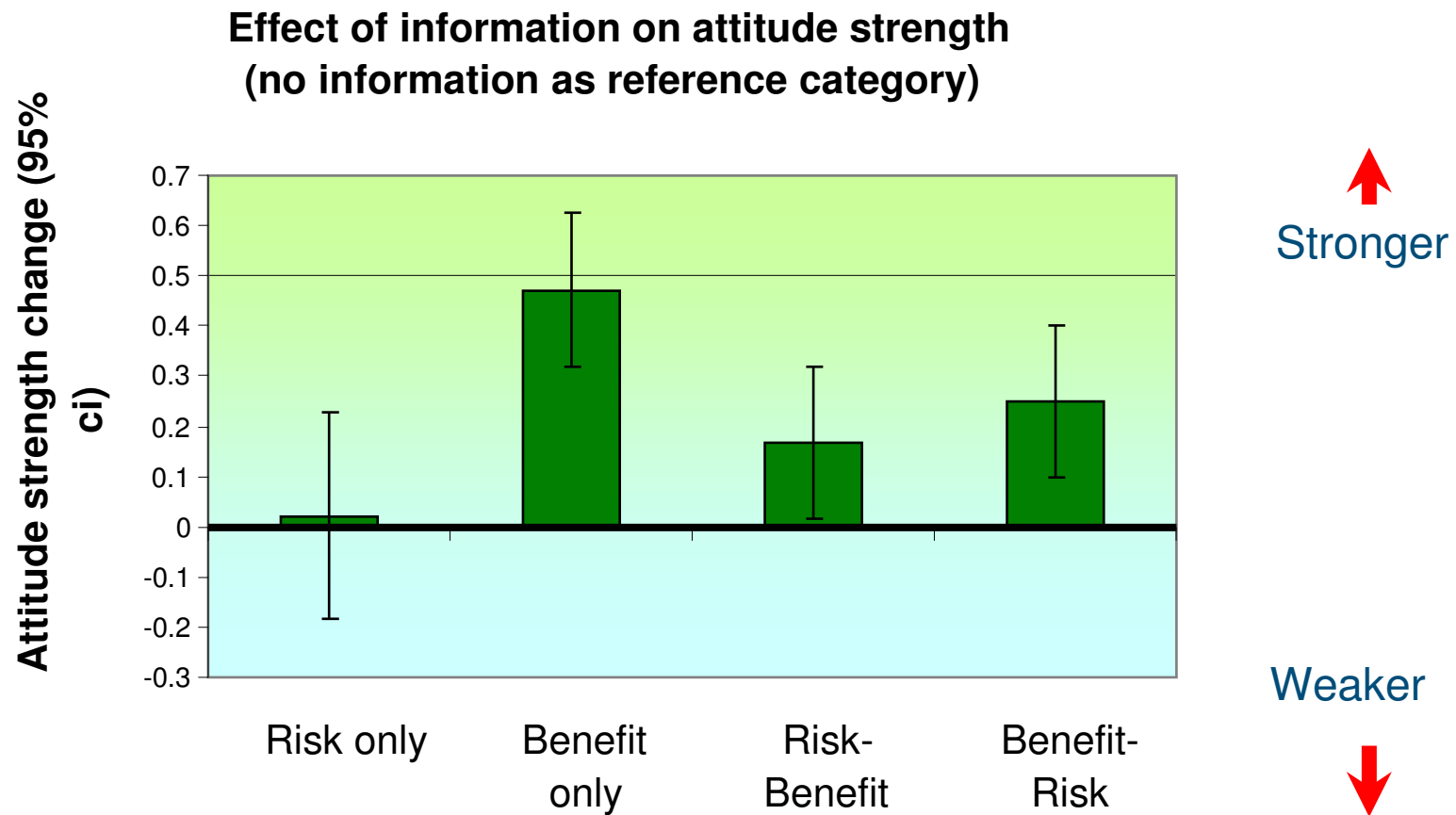


Risk-benefit communication

Effect of information on attitude (no information as reference category)



Risk-Benefit Experiment: Results Attitudes



Results Experiment: Risk Benefit Perceptions

Risk perception tends to be influenced by risk communication

- **Always** increases following **risk** communication

Benefit perception is less stable

- **Increases** following **benefit** communication
- **No change** following **risk-benefit** communication
- **Decreases** following **risk** communication



Risk-Benefit Experiments: Interim conclusions

- Risk communication
 - Increases risk perception
 - Reduces benefit perception
- Benefit communication
 - Reinforces existing positive attitudes (attitude strength)



Risk communication messages should address...

- Ongoing **risk management** and **research** activities
- **Preventative programs** and **proactive** risk management efforts to detect and mitigate emerging risks
- Selection of food risk managers according to **expertise** and **value similarities**
 - **health protection** versus **economic** interests
- Transparency regarding Process to develop **regulatory priorities**
- **Scientific uncertainty** and **variability**
- Information on the performance of **enforcement** of systems



Emerging issues in communication

- Risk – *Benefit* communication
- Targeted communication to vulnerable populations
- Communication of integrated risk-benefit measures (e.g. Qualys and Dalys)



**Thank
you!**

Any



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Questions