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## Awareness-raising on risk in theory and practice

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Forest Research Institute  
Baden-Württemberg



PROTEZIONE CIVILE  
Regione Autonoma della Sardegna



# Why?

**It starts with the people...**

## **Experts should...**

...recognize their knowledge gaps

...see opportunities in cooperation

...change from “response culture” to prevention

...see the whole picture

## **The public should...**

...be informed

...help experts with information

...call for prevention



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WHAT AFFECTS OUR RISK  
PERCEPTION?

WHAT IS AWARENESS?

RAISING RISK AWARENESS IN  
PRACTICE



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WHAT AFFECTS OUR RISK  
PERCEPTION?



# Risk perception



## RISK ≠ RISK PERCEPTION

**Statistical risk does not meet risk perceptions of society**

**What plays a role?**

- Control (personal / institutional)
- Voluntariness
- Individual concern
- Blame
- Familiarity





## RISK ≠ RISK PERCEPTION

### How do we value risks?

#### Heuristics or Intuitive coping with risks

**Satisficing (from satisfy & suffice):** choosing the first possible solution

**Availability:** previous experience with a risk

**Anchoring effect:** Similar experiences, association

**Intuitive inductive reasoning:**

Own experience > knowledge / statistics

**Emotional reasoning:** emotional risk perception



# Perception of natural hazards

## Examples for the Influence of perception biases

**Natural hazards are perceived as not influenceable**  
→ Effects are also perceived as given, people do not worry  
(no one to blame)



**Rare catastrophes seem more dangerous than common 'small' events** ⚡  
(emotional reasoning, availability heuristic)

**Recent "available risks" are seen as more worrisome for the future → crisis-driven regulation**  
(inductive reasoning, availability heuristic)

**False attributions of causes**  
Perceived experience with hazards due to climate change than statistically possible  
(anchoring heuristic)

## Climate change is special

### Visibility problems

#### What we notice...



Damage six months after storm Kyrill  
Source: Wikipedia by Vincecnt Baas, 2007

#### ...and how it happens...



Landscape at Balaton lake, Hungary  
Source: Wikipedia by txd, 2006



# Societal perspective on risk

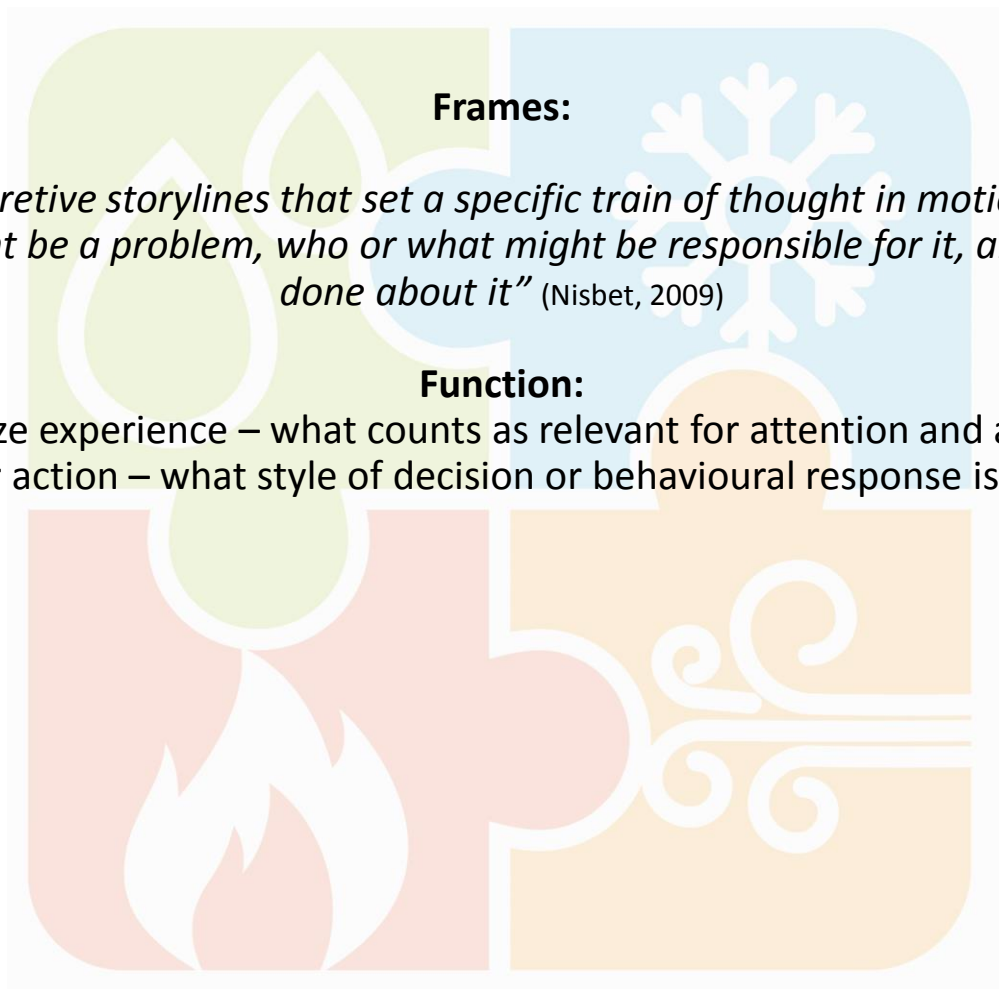
## Framing effects

### Frames:

*“Frames are interpretive storylines that set a specific train of thought in motion, communicating why an issue might be a problem, who or what might be responsible for it, and what should be done about it” (Nisbet, 2009)*

### Function:

They organize experience – what counts as relevant for attention and assessment?  
They bias for action – what style of decision or behavioural response is appropriate?



# Societal perspective on risk

## Framing effects: an example

Catastrophy

picture New York under water

Emotion

picture polar bear

Progress

picture wind power

Pandora's box frame  
Source: „The Day after tomorrow“  
movie, 2004

Morality and ethics frame  
Source: unknown

Economic development and competitiveness frame  
Source: unknown

## Influence of the media

### Conflicting messages

- Mass media influence sovereignty of interpretation
  - Experts dilemma
- sensationalization of the science
  - Dominance of negative messages
- Conflicting messages
  - tips to save energy meet horror scenarios





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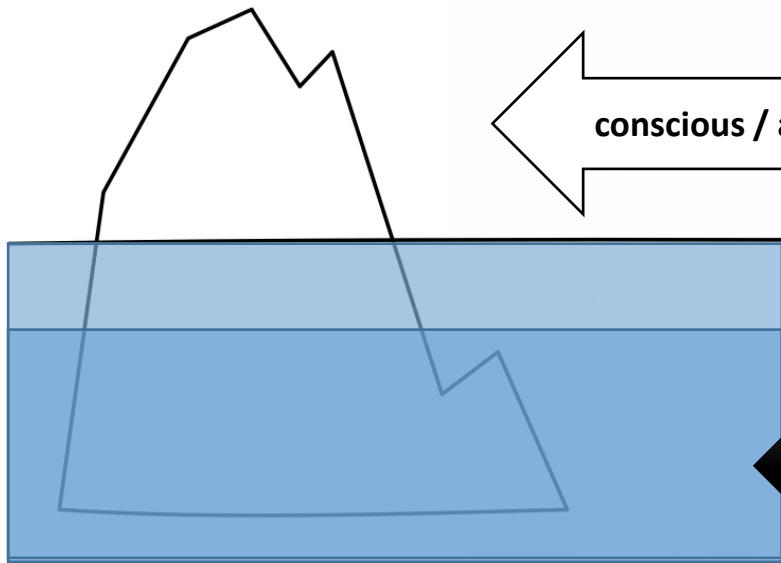


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WHAT IS AWARENESS?

## Idea and quality

### The mind as an iceberg



conscious / aware

sub-conscious

### Awareness:

“Awareness is the **ability to directly know and perceive, to feel, or to be cognizant of events.** More broadly, it is the state or quality of being conscious of something” (Wikipedia)

### Consciousness raising /awareness raising:

“people attempting to focus the attention of a wider group of people on some cause or condition” (Wikipedia)

# Knowledge = Awareness = Action?

## Is knowing better enough?

**Information campaigns of the 80s**  
**Deficit model: Unaware people have knowledge gaps**

Drastic presentation of environmental problems  
Overuse in “catastrophe pedagogics”

but

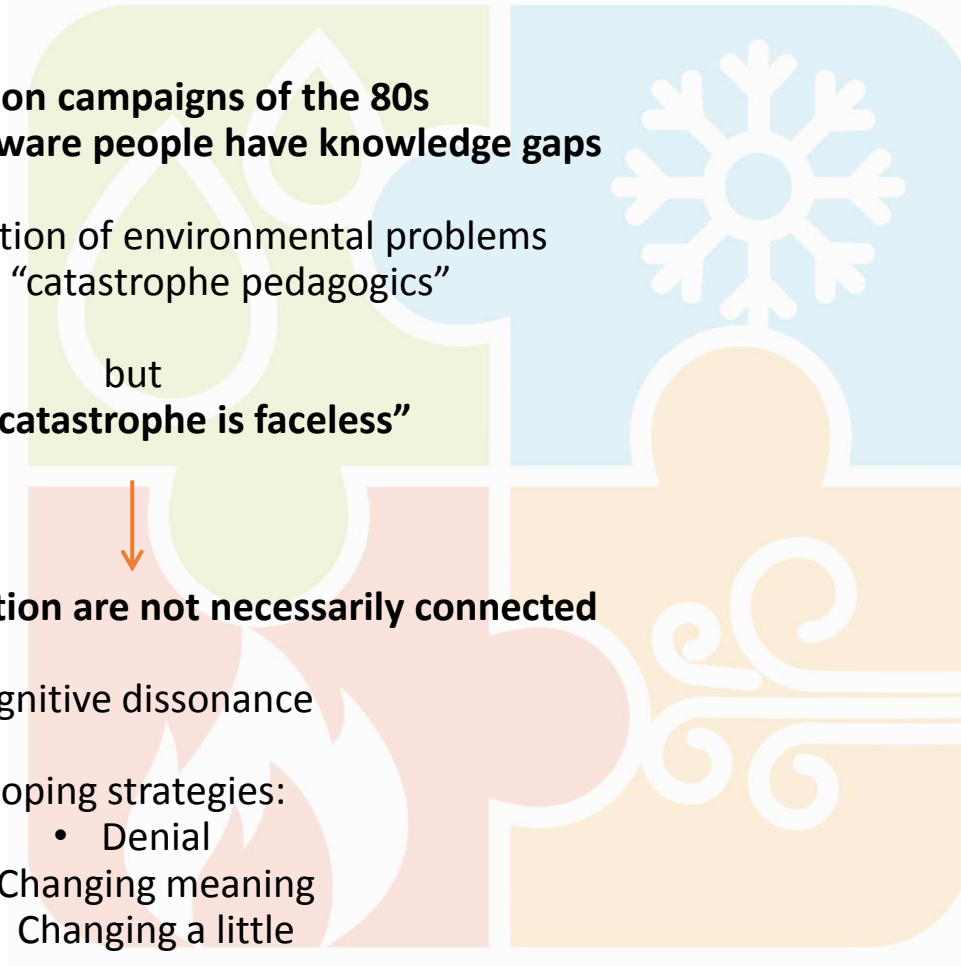
→ “The catastrophe is faceless”

**Knowledge and Action are not necessarily connected**

Cognitive dissonance

Coping strategies:

- Denial
- Changing meaning
- Changing a little



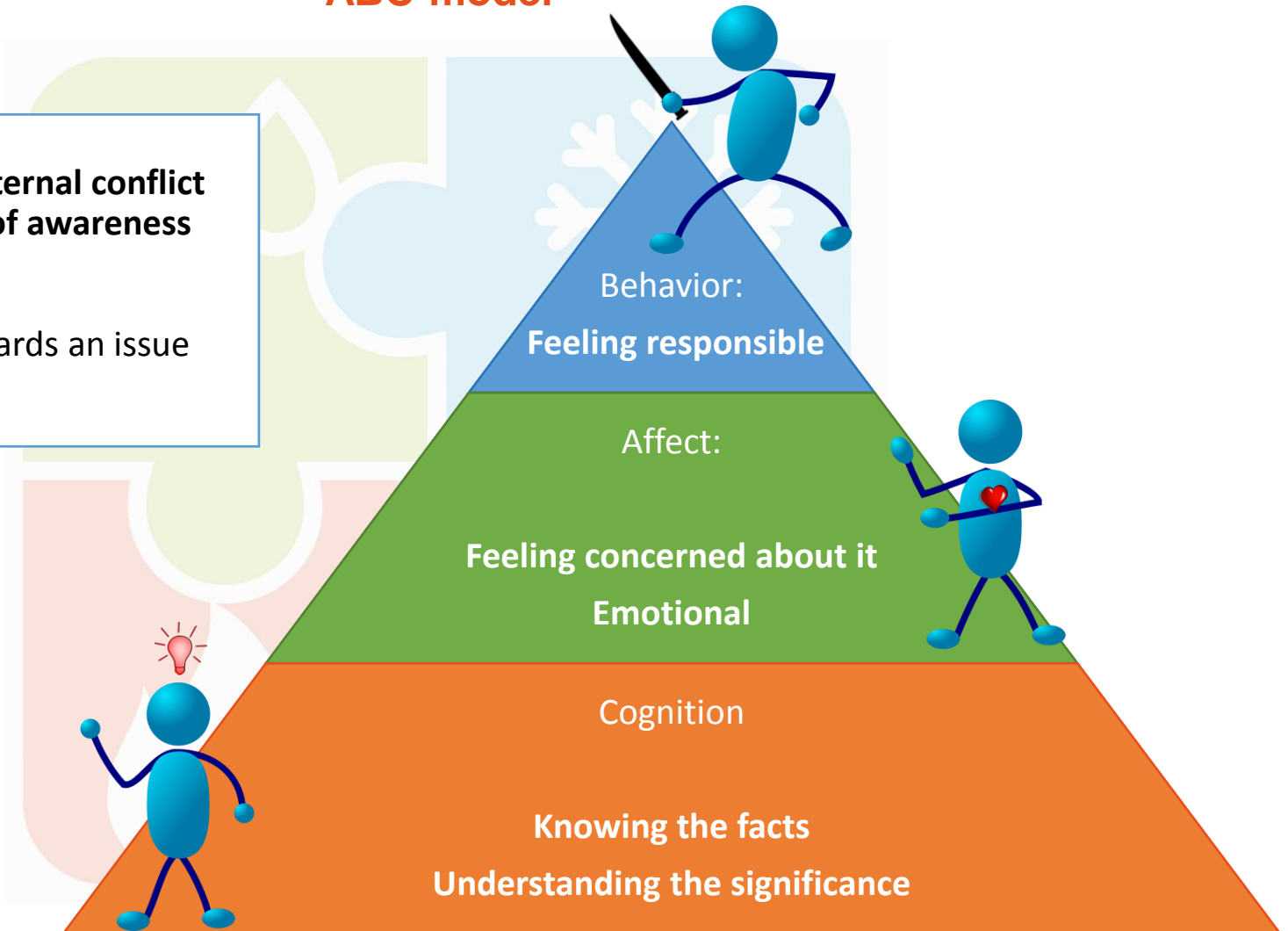


# Components of awareness

## ABC-model

**Cognitive dissonance = internal conflict of different components of awareness**

Inconsistent attitudes towards an issue are not stable





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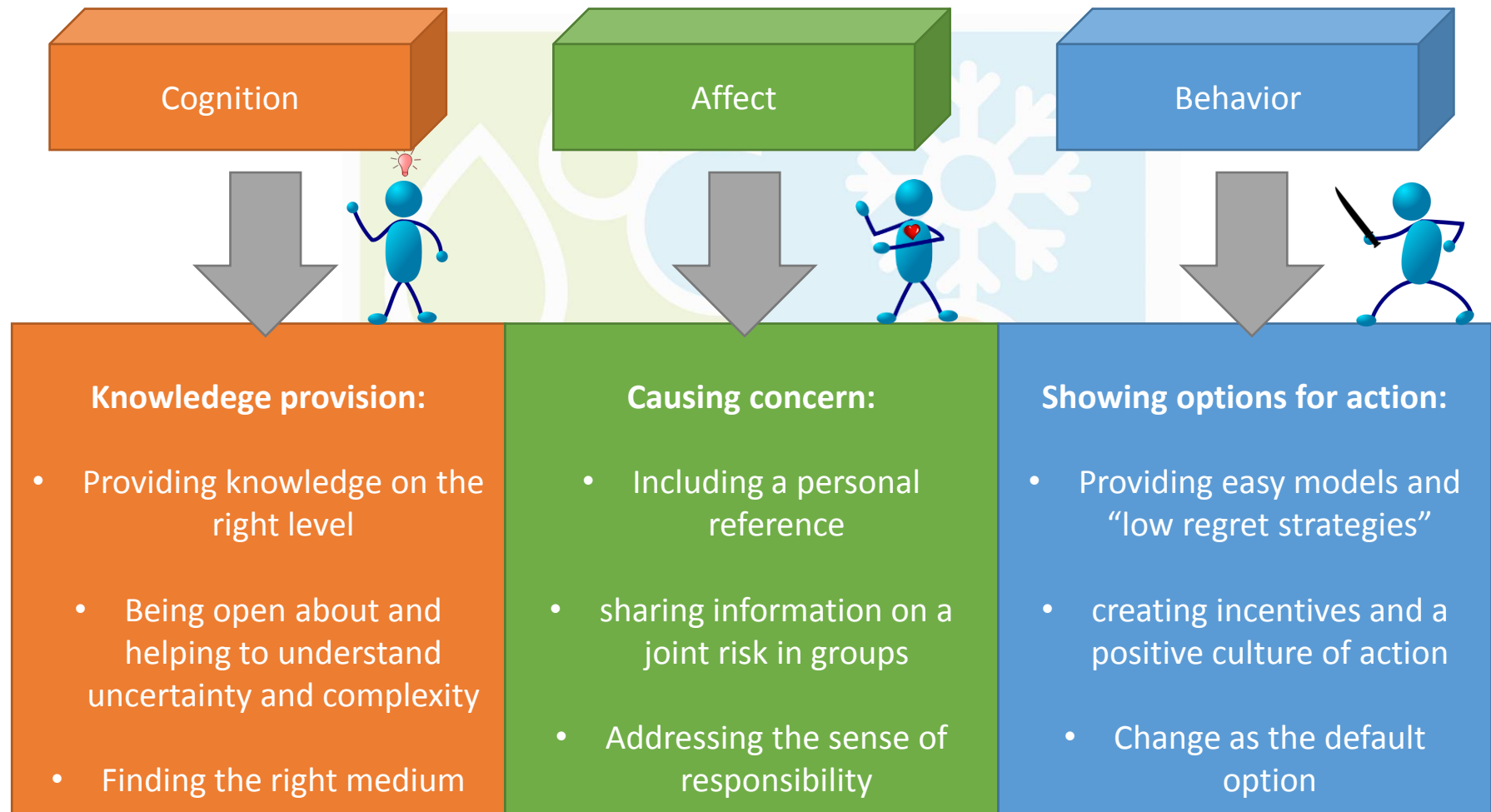


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# RAISING RISK AWARENESS IN PRACTICE



# Awareness-raising on all levels



## Why do the pro's need help

### Frame your advice carefully!

**(Risk related) uncertainty can challenge a professional identity**

→ Plausible decisions become more important than accuracy

*In case of uncertainty, everybody is looking for a good storyline to legitimize decisions!*

pre-crisis

**Frame:**

~~A professional must be able to manage every crisis on his/her own~~

**Frame:**

A professional knows where he/she finds the information needed in the crisis case

During a crisis

**Frame:**

~~The expert tells the professional what to do~~

**Frame:**

The expert helps the professional to make informed decisions (guide, optimal path)

Post-crisis

**Frame:**

~~A crisis is a throwback, back-to-normal as fast as possible~~

**Frame:**

Every crisis is a restart, we can do better than before



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# Thank you



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