DR. GROTHMANN research & consulting adelphi Project „KommEx“ Funded by Umwelt Bundesamt

Experiences from a communication campaign to foster adaptation to increasing heat extremes

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Main idea I: From climate information to adaptation support and facilitation

Thinking

- Less in terms of climate information provision
- More in terms of supporting and encouraging adaptation behavior

Because information provision alone

- Often has no impact on behavior or
- Can even become a barrier to behavior (due to complexity or uncertainty of information)

Main idea II: Reduce the gap between climate communication and users by psychological surveys

- **Surveys on**
  - Information needs
  - Preferred information channels
  - Drivers of and barriers to adaptation based on psychological knowledge on explanatory factors for self-protective behavior

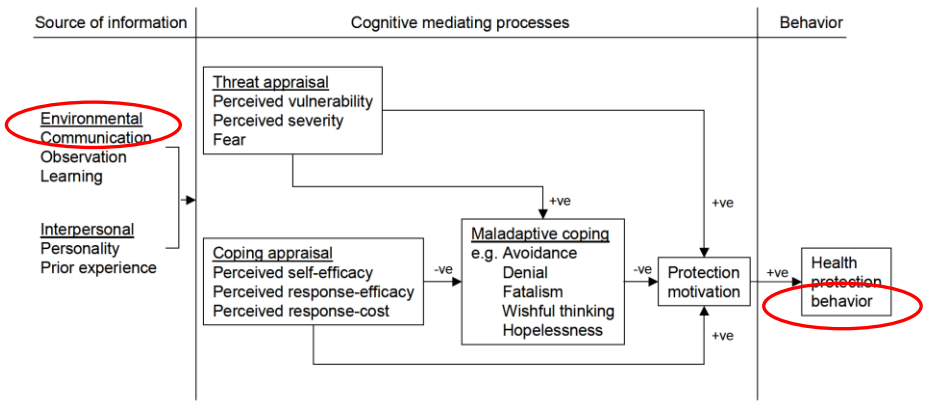
Standard procedure in target group analyses

Not standard

➔ Field-tested psychological action models

Identification of adaptation drivers and barriers based on field-tested psychological action models

PMT - Protection Motivation Theory (Rogers 1983, Rogers & Prentice-Dunn 1997, Milne et al. 2000)



Focus:
Adaptation of older people to heat waves

- Representative telephone survey
  with 501 people aged 65 and over, living alone, in Germany
- Including questions on
  - Potential drivers of and potential barriers to self-protective behavior during heat waves
  - …

Survey results

- **Multiple regression analyses detected the following statistically significant determinants of adaptation / self-protective behavior:**

Most important

- combined indicator of
  self-efficacy and outcome-efficacy beliefs
  regarding self-protective behavior
  „I can perform self-protective behavior during heat waves"
  "Such behavior is effective"
- subjective norm / perceived responsibility
  for self-protective behavior
  „It's my personal responsibility to watch out for my health during heat waves"
- combined indicator of
  heat risk experience (most important!),
  risk perceptions and
  risk related worry
  „I have had health problems during past heat waves"
  "I am at risk during heat waves"
  "I am worrying about my health during heat waves"
- Gender: Women show more
  self-protective behavior than men.

Logic for making use of detected psychological adaptation drivers and barriers in communication (cf. Grothmann 2014)

- **Focus** on **statistically significant** drivers and barriers
- Try to **increase** statistically significant **drivers**
- Try to **decrease** statistically significant **barriers**

From survey results to communication measures

- **Statistically significant determinants of adaptation / self-protective behavior**

Most important

- combined indicator of self-efficacy and outcome-efficacy beliefs regarding self-protective behavior
- subjective norm / perceived responsibility for self-protective behavior
- a combined indicator of heat risk experience (most important!), risk perceptions and risk related worry

- Gender: Women showed more self-protective behavior than men.

Consequences for communication

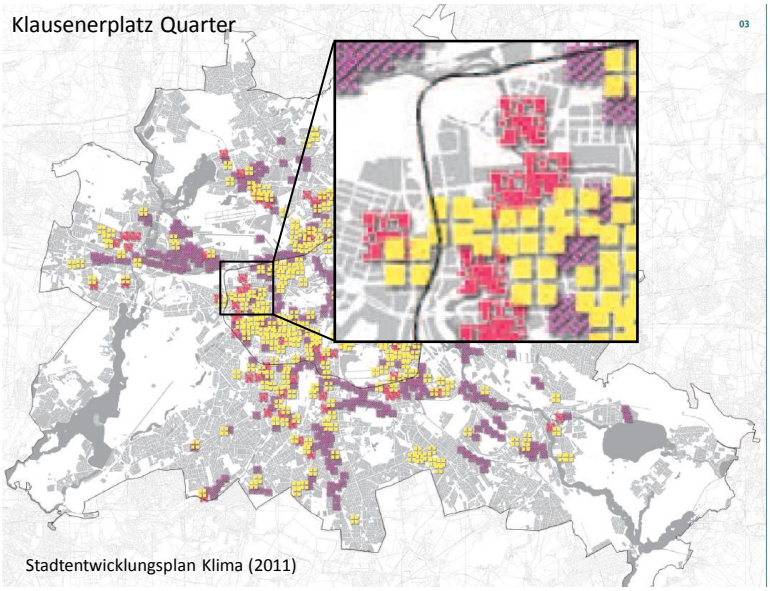
➔ Focus less on climate risks and more on adaptation options, stress effectiveness of adaptation options

➔Communicate adaptation as shared responsibility and solidarity challenge

➔ Elicit memory of heat events and health impacts, communicate unknown health risks (e.g. medication), emotionalize risks (e.g. by pictures)

➔Focus more on men than on women as recipients

Choosing communication campaign focus: City district with existing and increasing heat risks



Schattenspender - Campaign design for summer 2015

- **Non-personal verbal and graphical communication** elements focusing on significant determinants of self-protective behavior (e.g. increasing outcome-efficacy beliefs among the elderly)
- **Personal face-to-face communication**, especially by engaging community members as "trusted messengers" of information on self-protective behavior during heat waves
- **Providing concrete support for the elderly during heat waves** by engaging community members
  - for providing gratis drinking water and cooling places (mainly in shops)
  - as "heat buddies", who help older people during heat waves e.g. with doing their groceries

Focus: Facilitate *self-protective behavior* among the elderly; i.e. communication as motivation less as knowledge transfer

Focus: Facilitate *helping behavior* among community members

Necessary requirement: Successful involvement of community members

Schattenspender - Campaign design for summer 2015

Brochure mailed to 3600 elderly people

Participation in street party

"Winning" community members for campaign

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A3-Posters in public shops and offices

Postcards in public shops and offices

Give-aways like drip mats, balloons

As "public reminders" of self-protective behavior

Reflection of Schattenspender -Campaign together with community members in Sept. 2015

Evaluated positively:

- **Design of communication formats**: brochure "Hitzeknigge", poster, postcards, give-aways
- **Mailing** of Hitzeknigge to elderly people
- **Visibility and face-to-face communication** during street party

Reflection of Schattenspender-Campaign together with community members in Sept. 2015

Room for improvement:

- **Community engagement below expectations**:
  Very few persons, shops and organizations
  - acted as "trusted messengers"
    ⇨ low level of personal face-to-face communication
    ⇨ probably only small increase in self-protective behavior of the elderly
  - provided concrete support for the elderly during heat waves, e.g. by providing gratis drinking water, cooling places or help with doing the groceries to the elderly
    ⇨ low level of helping behavior
- **Low level of community engagement probably due to a variety of reasons**:
  Community organizations and businesses in the city district
  - were contacted too late (in spring before summer 2015),
  - occupied with other interests or duties (particularly with caring for refugees) and / or
  - not willing or able to provide cooling places.

Lessons learnt and a question for discussion

- **Surveys to detect psychological drivers of and barriers to adaptation behavior help in designing communication formats** that have the potential to increase such behavior.
- These **communication formats need to be combined with community engagement strategies** to become effective.
- **Community engagement is time-consuming and often difficult to establish** regarding adaptation to climate change.

➢ **How to increase community engagement in adaptation to heat waves?**

Thank you!

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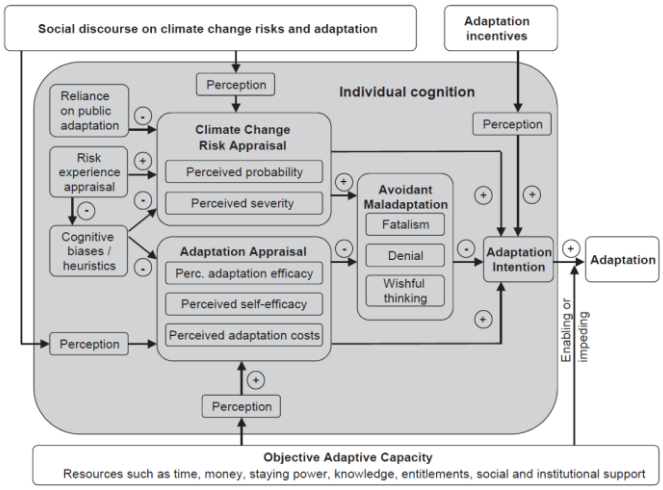
Cited References

- Grothmann, T. (2014). Klimawandelanpassung kommunizieren – Wie gehe ich es an? In A. Prutsch, N. Glas, T. Grothmann, V. Wirth, B. Dreiseitl-Wanschura, S. Gartlacher, F. Lorenz & W. Gerlich (2014). Klimawandel findet statt. Anpassung ist nötig. Ein Leitfaden zur erfolgreichen Kommunikation (S. 32-53). Wien: Umweltbundesamt. http://klimawandelanpassung.at/index.php?id=26275
- Grothmann, T. & Patt, A. (2005). Adaptive capacity and human cognition: The process of individual adaptation to climate change. Global Environmental Change 15 (2005) 199–213.
- Milne, S., Sheeran, P., & Orbell, S. (2000). Prediction and Intervention in Health-Related Behaviour: A Meta-Analytic Review of Protection Motivation Theory. Journal of Applied Social Psychology, 30, 106-143.
- Rogers, R.W. (1983). Cognitive and physiological processes in fear appeals and attitude change: a revised theory of protection motivation. In: Cacioppo, B.L., Petty, L.L. (Eds.), Social Psychophysiology: A Sourcebook. Guilford, London, UK, pp. 153–176.
- Rogers, R.W. & Prentice-Dunn, S. (1997). Protection motivation theory. In: Gochman , D.S. (Ed.), Handbook of Health Behaviour Research. I: Personal and Social Determinants. Plenum Press, New York, NY, pp. 113–132.
- Stadtentwicklungsplan Klima (2011). Urbane Lebensqualität im Klimawandel sichern. Senatsverwaltung für Stadtentwicklung, Berlin.

Identification of adaptation drivers and barriers based on field-tested psychological action models

MPPACC - Model of Private Proactive Adaptation to Climate Change (Grothmann & Patt 2005)



Risk communication alone often has no impact to on behavior