



# Nature and Society: Fill the concepts with Life!

Andreas Muhar

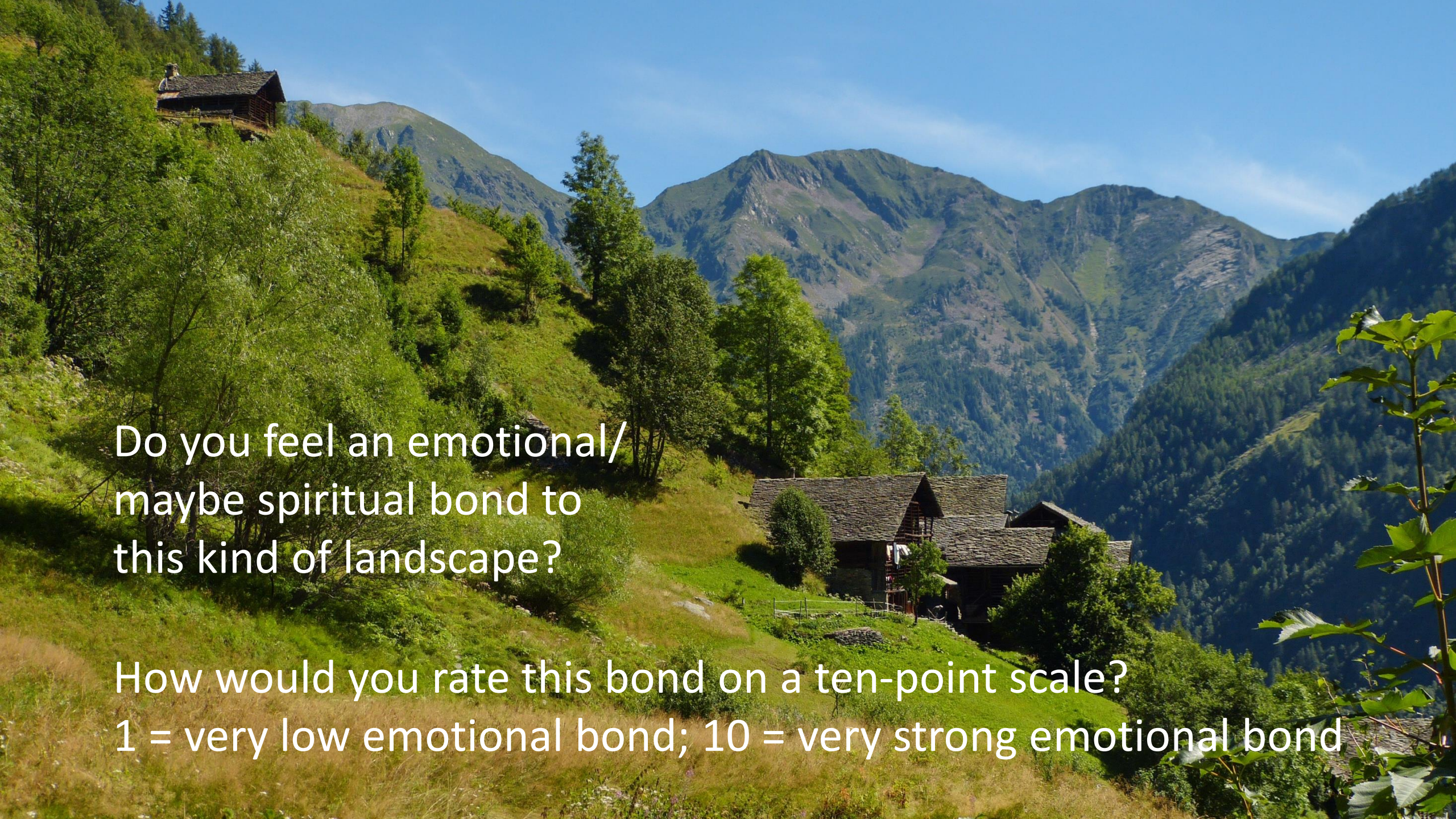
University of Natural Resources and Life Sciences Vienna

CIPRA Annual Conference 2021, Biella, IT









Do you feel an emotional/  
maybe spiritual bond to  
this kind of landscape?

How would you rate this bond on a ten-point scale?  
1 = very low emotional bond; 10 = very strong emotional bond





How much would you be willing  
to pay for securing a long term  
preservation of this landscape?

☐ 10 €

☐ 50 €

☐ 100 €

☐ 500 €



Study on the willingness to pay for the conservation of seals in the Bay of Gdansk, Poland:

33% of interviewees refused to answer



Biological Conservation

Volume 145, Issue 1, January 2012, Pages 148-159



## Different cultures, different values: The role of cultural variation in public's WTP for marine species conservation

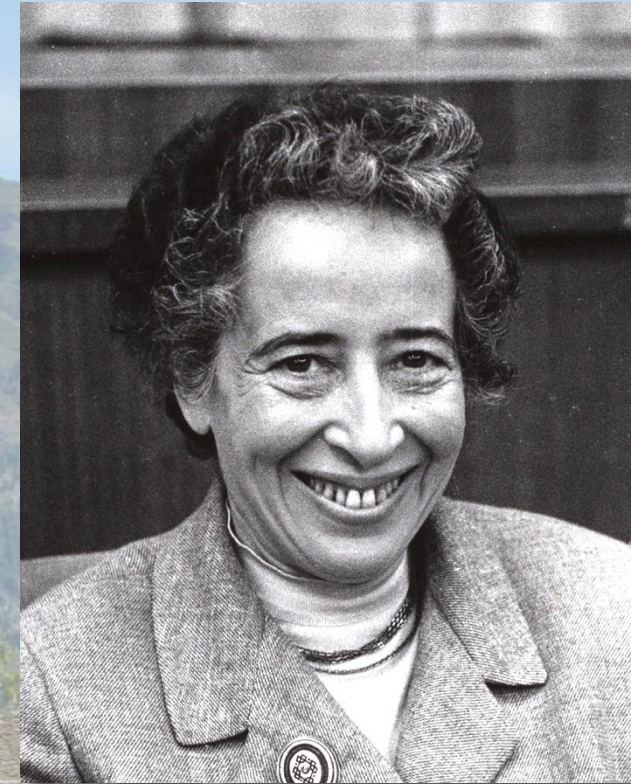
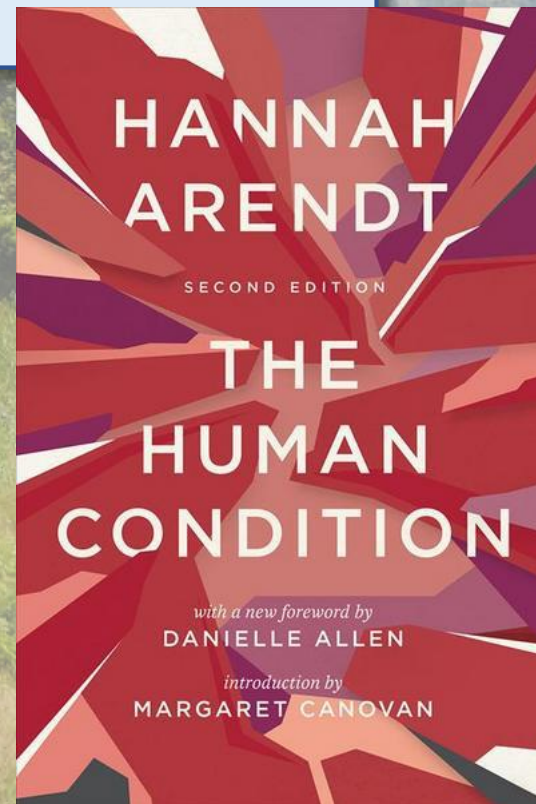
Adriana Ressurreição <sup>a</sup>✉, James Gibbons <sup>b</sup>✉, Michel Kaiser <sup>c</sup>✉, Tomaz Ponce Dentinho <sup>d</sup>✉, Tomasz Zarzycki <sup>e</sup>✉, Charlotte Bentley <sup>c</sup>✉, Melanie Austen <sup>f</sup>✉, Daryl Burdon <sup>g</sup>✉, Jonathan Atkins <sup>h</sup>✉, Ricardo S. Santos <sup>a</sup>✉, Gareth Edwards-Jones <sup>b</sup>✉



<https://de.wikipedia.org/wiki/Seehund#/media/Datei:Seehund2cele4.jpg>



By assigning an exchange value to an object we actually devalue it.



Hannah Arendt 1906 - 1977

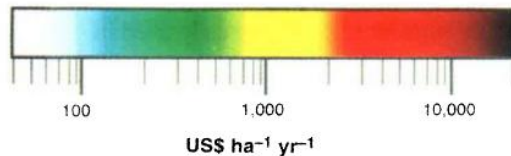
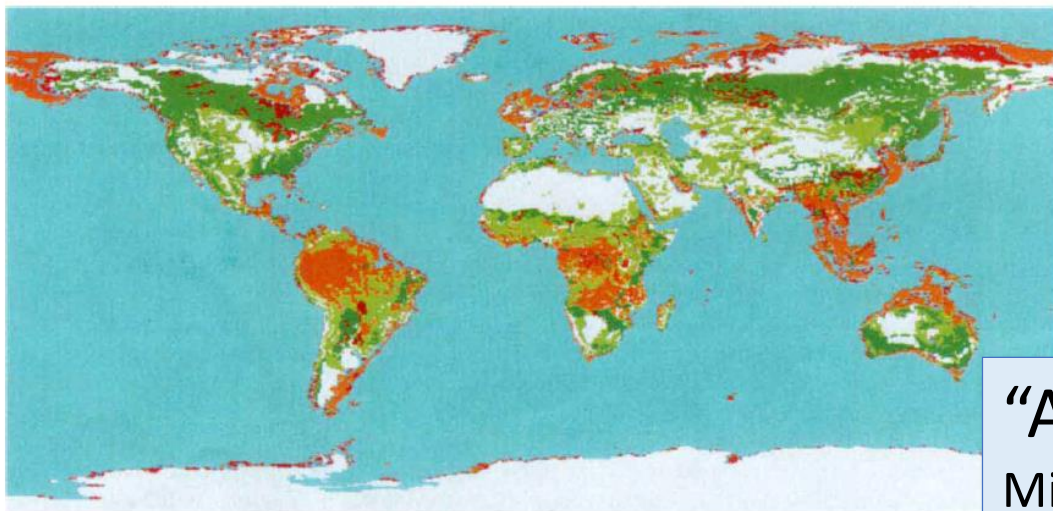
Barbara Niggel Radloff,  
<https://sammlungonline.muenchner-stadtmuseum.de/objekt/hannah-arendt-auf-dem-1-kulturkritikerkongress-10218949.html>



Robert Costanza et al. (1997):

# Value of the worlds ecosystems: 33 trillion USD (global GDP: 18 trillion USD)

Costanza, R. et al. (1997): The value of the world's ecosystem services and natural capital.  
Nature 387, 253-260



“A serious underestimate of infinity”

Michael Toman (1998): Why not to calculate the value of the world's ecosystem services and natural capital. Ecological Economics 25(1), 57–60



# Nature and Society: A plethora of „new“ concepts

*Bionics*

Engineering with Nature

Green Infrastructure

Blue Infrastructure Bioeconomy

**Ecosystem Services**

**Nature-based Solutions**

Green Economy

Biomimicry

Nature-based Infrastructure

Ecosystem-based Adaptation

*Natural Capital*



# Nature and Society: A plethora of „new“ concepts

Bionics  
Engineering with Nature

- Are these concepts really new?
- What are they good for?
- What can they not achieve?
- Are they useful to motivate people to engage for conservation/sustainability?

Biomimicry

Nature-based Infrastructure

Ecosystem-based Adaptation



# The idea of a „Bridging Concept“

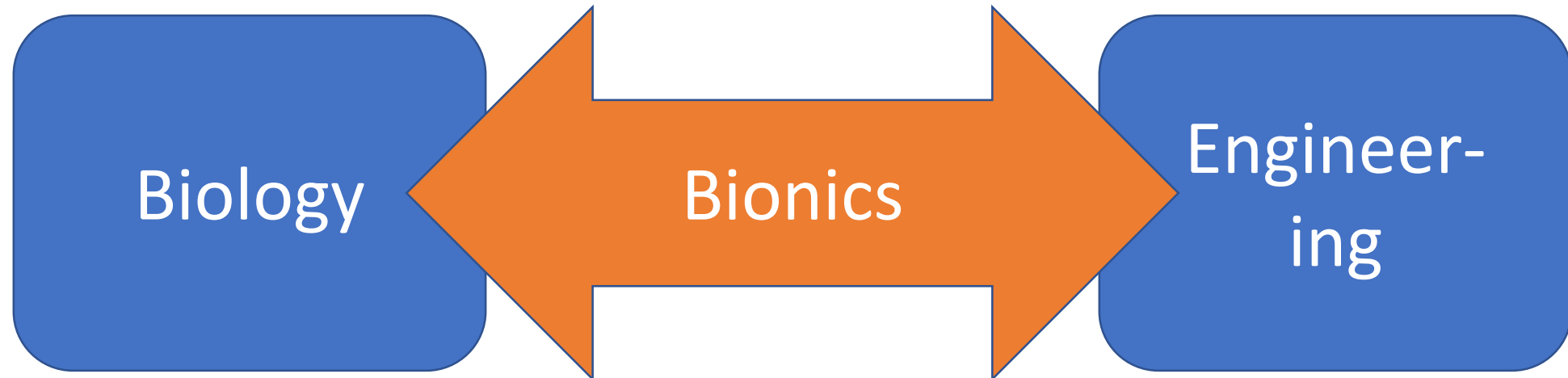
- Linking different domains
- Create mutual understanding
- Making linkages explicit
- Providing rational arguments in sometimes emotional conflict situations





# The idea of a „Bridging Concept“

- Linking different domains
- Create mutual understanding
- Making linkages explicit
- Providing rational arguments in sometimes emotional conflict situations





# The idea of a „Bridging Concept“

- Linking different domains
- Create mutual understanding
- Making linkages explicit
- Providing rational arguments in sometimes emotional conflict situations





# Benefits of the Ecosystem Services concept

- Communication of the **multivarious dependency** of human society on natural processes
- Using the language and mindset of economists and the business world provides can open new communication channels





# Benefits of the Ecosystem Services concept

- Mainstreaming of human-nature relationship thinking



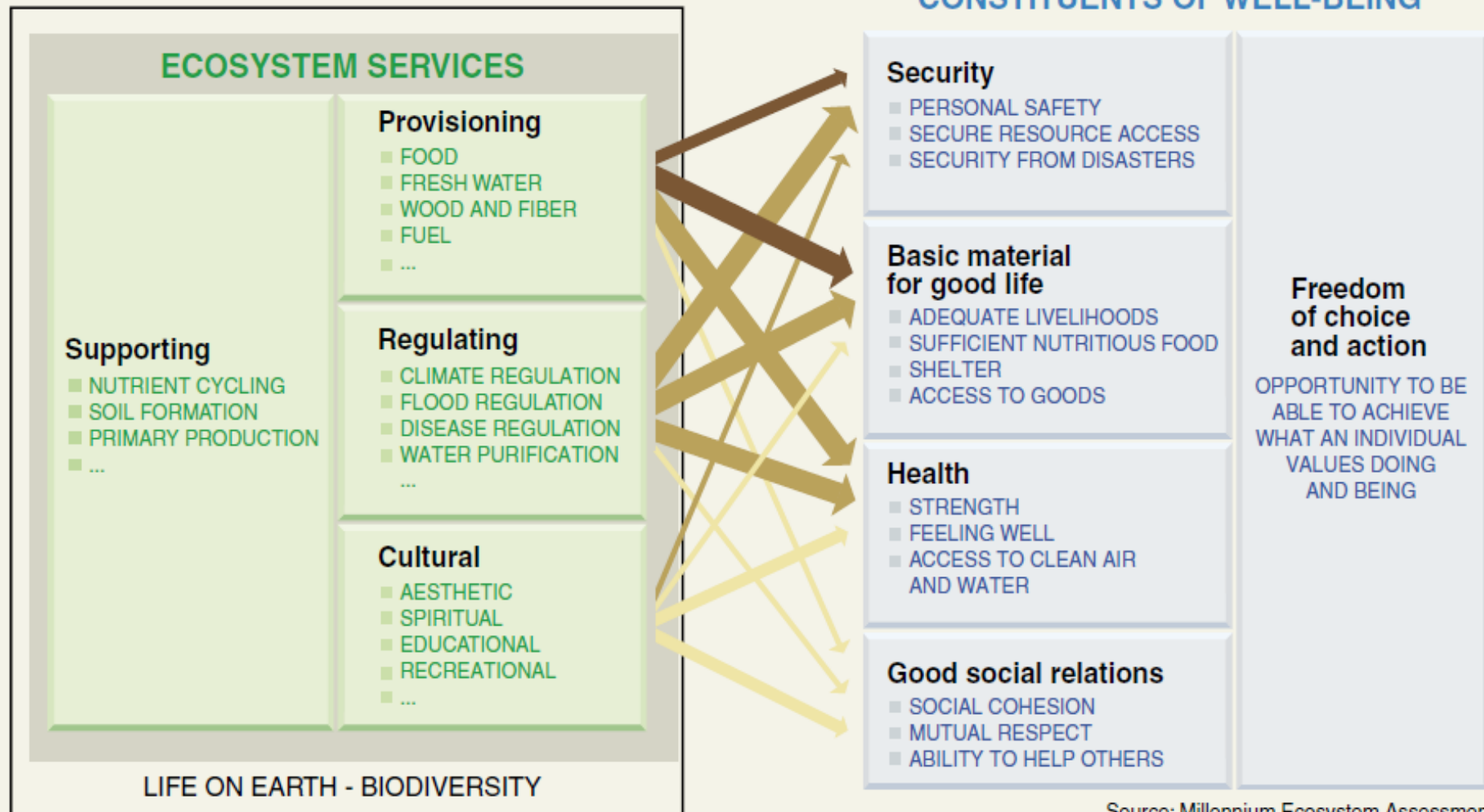


# Limitations of the Ecosystem Services concept

- Tendency to only look at what can be measured
  - Focus on provisional and regulating services
  - Cultural services often neglected







Source: Millennium Ecosystem Assessment

**ARROW'S COLOR**  
Potential for mediation by socioeconomic factors

- Low
- Medium
- High

**ARROW'S WIDTH**  
Intensity of linkages between ecosystem services and human well-being

- Weak
- Medium
- Strong



# Limitations of the Ecosystem Services concept

- Tendency to only look at what can be measured
  - Focus on provisional and regulating services
  - Cultural services often neglected
- Who is the „service“ provider?
  - The ecosystem?
  - The owner of the ecosystem?
  - Nature does not hold a bank account...





# Limitations of the Ecosystem Services concept

- Tendency to only look at what can be measured
  - Focus on provisional and regulating services
  - Cultural services often neglected
- Who is the „service“ provider?
  - The ecosystem?
  - The owner of the ecosystem?
  - Nature does not hold a bank account...
- What about the negative impacts of nature on society?
  - Nature is not always benevolent...
  - „Disservices“ only occasionally considered
  - Payments for Ecosystem Services
    - > Fines for Ecosystem Disservices ?





# Key question for CIPRA campaigns...

- Can concepts such as Ecosystem Services help motivating people to engage for conservation, sustainability etc.?
- If you frame a process with the Ecosystem Services concept, which stakeholder groups will be attracted or deterred ?





# Why do people engage in nature conservation?

## Results from the BIOMOT-Project (IT, SL, DE, NL, BE, FI):

*Environmental Conservation* (2017) 44 (2): 148–157 © Foundation for Environmental Conservation 2017

doi:[10.1017/S037689291700008X](https://doi.org/10.1017/S037689291700008X)

### Motivations for committed nature conservation action in Europe

JEROEN F. ADMIRAAL<sup>\*1</sup>, RIYAN J.G. VAN DEN BORN<sup>2</sup>, ALMUT BERINGER<sup>3</sup>,  
FLAVIA BONAIUTO<sup>4</sup>, LAVINIA CICERO<sup>5</sup>, JUHA HIEDANPÄÄ<sup>6</sup>, PAUL KNIGHTS<sup>7</sup>,  
LUUK W.J. KNIPPENBERG<sup>2</sup>, ERICA MOLINARIO<sup>4</sup>, CORNELIS J.M. MUSTERS<sup>1</sup>,  
OSMA NAUKKARINEN<sup>6</sup>, KATARINA POLAJNAR<sup>8</sup>, FLORIN POPA<sup>9</sup>, ALES SMREKAR<sup>8</sup>,  
TIINA SOININEN<sup>6</sup>, CARMEN PORRAS-GOMEZ<sup>10</sup>, NATHALIE SOETHE<sup>3</sup>,  
JOSE-LUIS VIVERO-POL<sup>10</sup> AND WOUTER T. DE GROOT<sup>2</sup>

<sup>1</sup>Institute of Environmental Sciences, Leiden University, P.O. Box 9518, 2300 RA Leiden, The Netherlands, <sup>2</sup>Institute of Science, Innovation and Society, Faculty of Science, Radboud University, P.O. Box 9010, 6500 GL Nijmegen, The Netherlands, <sup>3</sup>Institute of Botany and Landscape Ecology – Environmental Ethics, University of Greifswald, Soldmannstrasse 15, 17487 Greifswald, Germany, <sup>4</sup>Dipartimento di Psicologia dei Processi di Sviluppo e Socializzazione, Sapienza Università di Roma, Via dei Marsi, 78, 00185 Rome, Italy, <sup>5</sup>Department of Human Studies, LUMSA University, Piazza delle Vaschette 101, 00193 Rome, Italy, <sup>6</sup>Natural Resources Institute Finland, Itäinen Pitkätie 3, 20520 Turku, Finland, <sup>7</sup>Philosophy, School of Social Sciences, The University of Manchester, Oxford Road, Manchester, M13 9PL, UK, <sup>8</sup>Anton Melik Geographical Institute, Research Centre of Slovenian Academy of Sciences and Arts, P.P. 306, 1001 Ljubljana, Slovenia, <sup>9</sup>European Commission, DG Education and Culture, Rue de la Loi 200, B-1049 Brussels, Belgium and <sup>10</sup>BIOGOV, Centre for Philosophy of Law, College Thomas More, Université Catholique de Louvain, Place Montesquieu 2 (Bte 15) B - 1348 Louvain-La-Neuve, Belgium

Date submitted: 20 April 2016; Date accepted: 28 January 2017; First published online 13 March 2017



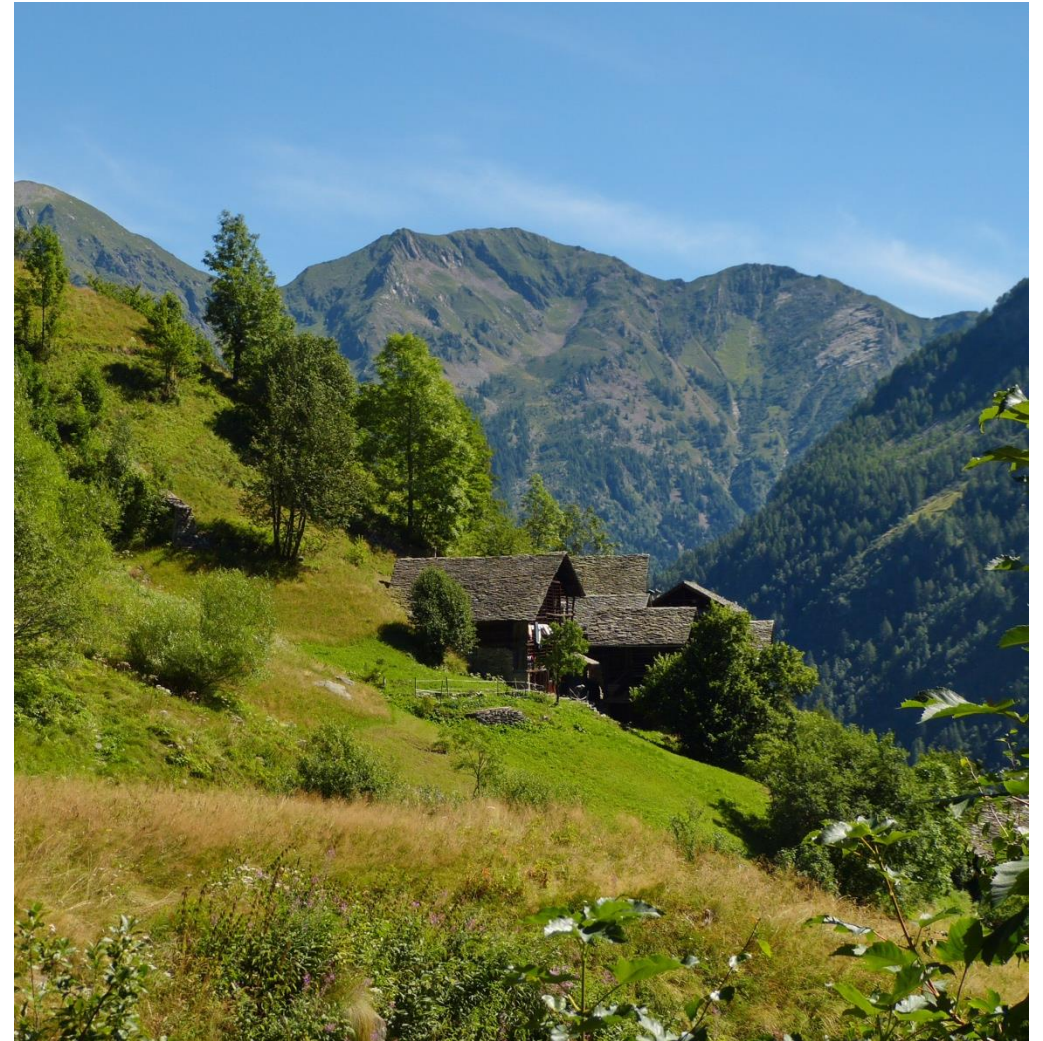


# Why do people engage in nature conservation?

„The current tendency of focusing on the economic valuation of biodiversity **fails to address the motivations** of successful actors.“

Main reasons to engage for non-biodiversity specialists:

- Beauty
- Place attachment
- Concern for future generations
- Value of nature in itself

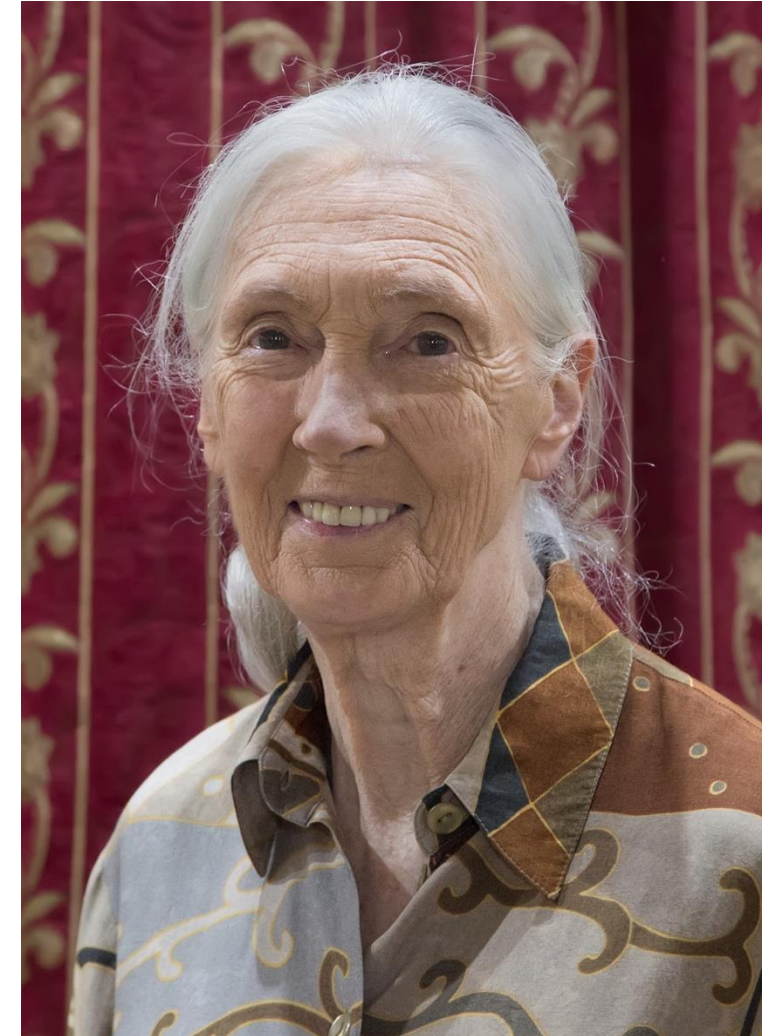




# „If you want leaders to truly listen, use the power of storytelling“

Jane Goodall at the WEF Davos 2019:

- “It’s no good when you meet somebody like that, who’s dedicated to their path — which may be a destructive path — **it’s no good trying to get to the brain**, because their brain is wired for success, for financial success.”
- “What you have to do is to **get into the heart**. And how do you get into the heart? With stories.”



Muhammad Mahdi Karim

Jane Goodall



# Addressing extrinsic values or activating intrinsic values in communication?

## Extrinsic values:

- Wealth
- Power
- Prestige
- Popularity
- ...

„Make money from saving the planet!“



## Intrinsic values:

- Empathy
- Social justice
- Benevolence
- Caring for others
- ...

„Care for nature, as we are part of it!“





# Addressing extrinsic values or activating intrinsic values in communication?

Extrinsic values:

Intrinsic values:

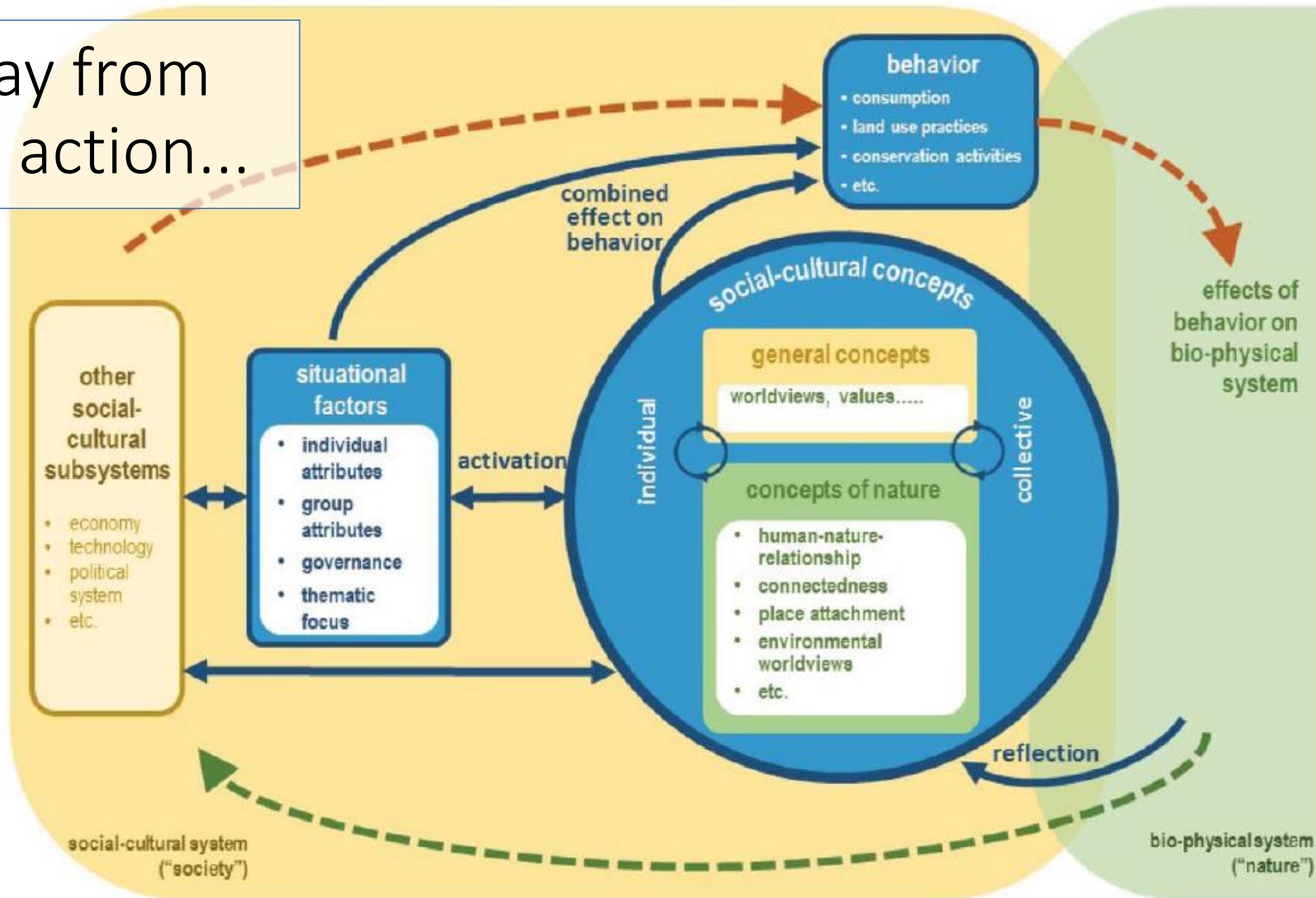
*Results from experimental behavioural economics:*  
Even persons with clear focus on extrinsic values can better be motivated for sustainability action by addressing their intrinsic values.

„Make money from saving the planet!“

„Care for nature, as we are part of it!“



# A long way from values to action...

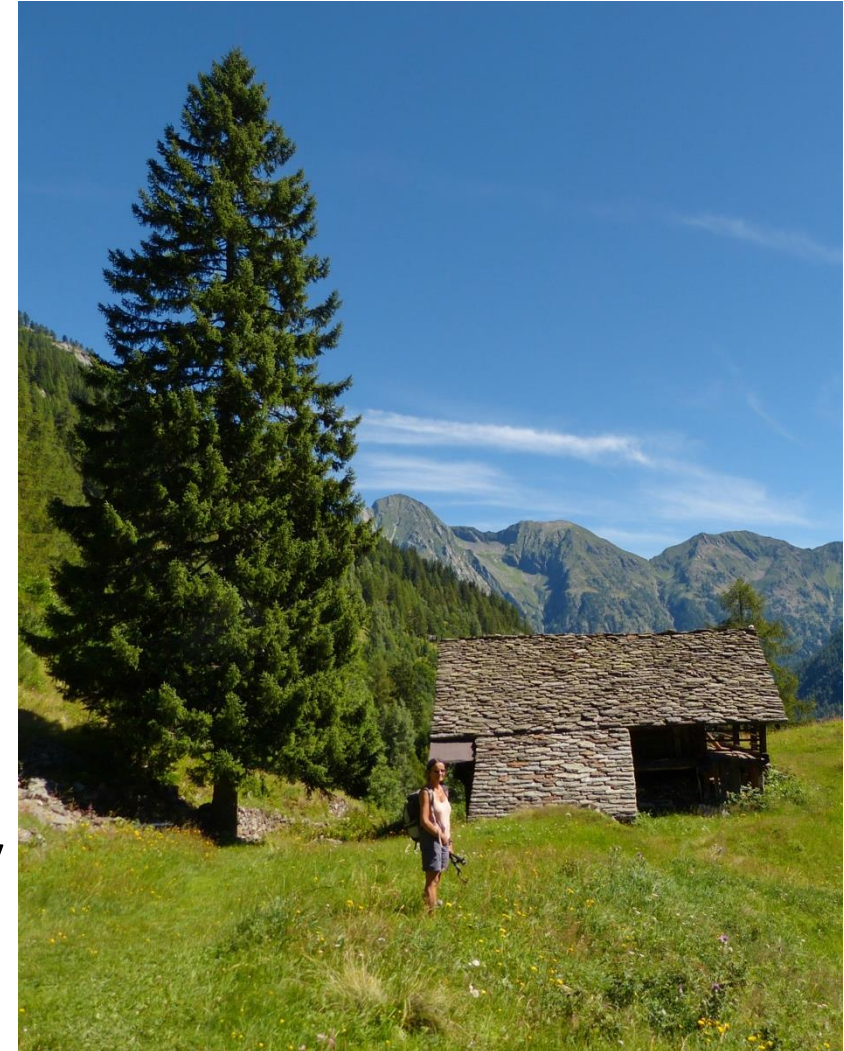


Muhar, A., Raymond, C.M., van den Born, R.J.G., Bauer, N., B.ck, K., Braitto, M., Buijs, A., Flint, C., de Groot, W.T., Ives, C.D., Mitrofanenko, T., Plieninger, T., Tucker, C., van Riper, C.J., 2018. A model integrating social-cultural concepts of nature into frameworks of interaction between social and natural systems. *J. Environ. Plan. Manag.* 61, 756–777.



# Current narratives used for biodiversity conservation

- **Eco-centric:** nature has an inalienable right to exist and should be conserved for its own sake
- **Faith, spirituality and ethics:** there is a spiritual imperative to conserve nature
- **Anthropocentric:** nature underpins human society and economy and therefore must be conserved
- **Economics:** conservation needs to work with the economic powers that exist
- **Crisis:** humans are destroying the planet and ourselves
- **Big data, the Fourth Industrial Revolution and ecomodernization:** technology will save humanity and the planet
- **Anthropocene:** there is no nature besides the one humanity makes





# Do we need new narratives for the Alps?

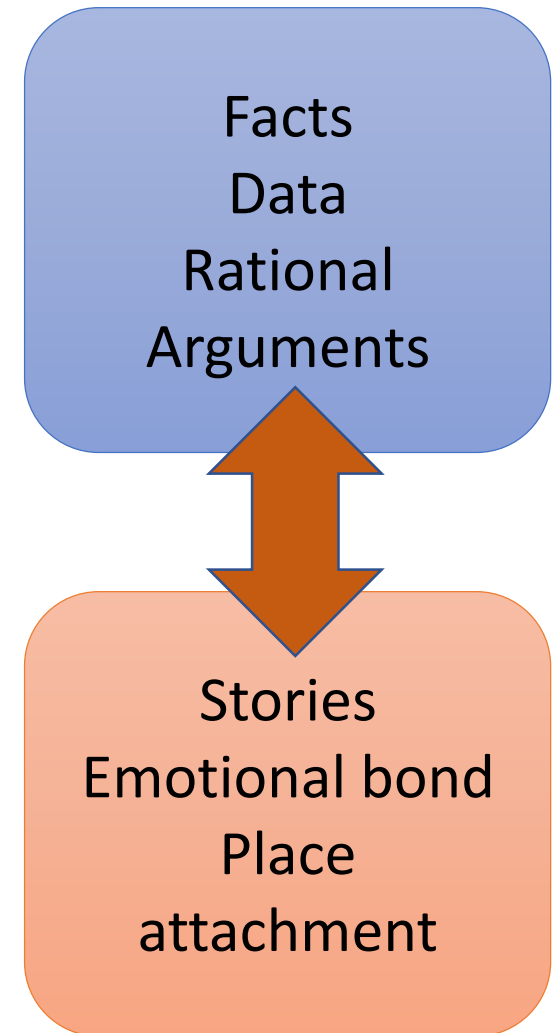
- Alps well-represented in the mental maps of people
  - Alpine mythology still in people's minds
  - Most narratives are rather oriented towards the past
- Our task: Develop new narratives that build upon the existing foundation and also address current sustainability issues.





# Summary

- Concepts for the Nature-Society Relationship such as „Ecosystem Services“ can provide useful rational arguments for
  - Planning processes
  - Sustainability strategies
- Motivation to engage for nature conservation and sustainability is mostly driven by emotional processes, activated by **narratives and personal experience rather than facts.**
- The work of CIPRA needs to fill these concepts with life to address **both the brains and hearts** of people.







Thank you!

Andreas Muhar

University of Natural Resources and Life Sciences Vienna

[andreas.muhar@boku.ac.at](mailto:andreas.muhar@boku.ac.at)