Integrating cognitive and affective human dimensions research: The Mental Hierarchy

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An important goal of Human Dimensions of Wildlife Research is to understand, explain, and predict human thought about and responses to wildlife.

Research guided by the "Cognitive Hierarchy" has advanced this knowledge.
Goal of this presentation

To present a theoretical framework that could:

• Guide the study of emotions toward wildlife
• Integrate knowledge about cognitions and emotions

the Mental Hierarchy
The cognitive hierarchy is based on the principle of a hierarchical organisation of cognitions.

1. Behaviors/experiences (specific situations)
   - Numerous
   - Faster to change
   - Peripherical
   - Specific to situations

2. Behavioral intentions (specific situations)
   - Few in number
   - Slow to change
   - Central to beliefs
   - Transcend situations

3. Norms/attitudes (species, context)

4. Wildlife value orientations (general)

5. Values
**Values**: desirable end states, modes of conduct, or qualities of life that we find important

- **Behaviors/experiences (specific situations)**
- **Behavioral intentions (specific situations)**
- **Norms/attitudes (species, context)**
- **Wildlife value orientations (general)**

E.g.: Freedom Security
Wildlife value orientations: patterns of basic beliefs that give meaning to values in the context of wildlife

E.g.: Mutualism Domination
**Attitudes**: mental dispositions to respond favorably or unfavorably to an object

E.g.:
Attitudes toward reintroduction of wolves in RMNP in 2012 by NPS
Empirical studies have demonstrated that general WVOs predict specific attitudes or norms. E.g.: Acceptance of management actions, up to 50% of variability explained by WVOs.
What about the other 50% or more?
What about the other 50% or more?

Perhaps, emotions?
Principles and questions

Principles

1. The cognitive and the emotional system are distinctive but interacting systems in the brain
2. The state – trait distinction → emotional responses – emotional dispositions

Questions

1. Does the hierarchy principle hold for emotions?
2. Is it possible to integrate an account of emotions with the cognitive hierarchy?
The mental hierarchy

- Behaviors/experiences (specific situations)
  - Behavioral intentions (specific situations)
  - Emotional responses (specific situations)
- Norms/attitudes (species, context)
- Emotional dispositions (species, context)
- Wildlife value orientations (general)
- General emotional dispositions to wildlife
- Values
- Personality traits
Personality traits

- Behavioral intentions (specific situations)
- Emotional responses (specific situations)
- Norms/attitudes (species, context)
- Emotional dispositions (species, context)
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- Values

Personality traits
General emotional dispositions toward wildlife

Diagram:

- General emotional dispositions to wildlife
  - Wildlife value orientations (general)
    - Norms/attitudes (species, context)
      - Behavioral intentions (specific situations)
        - Behaviors/experiences (specific situations)
          - Values
            - Personality traits
              - Emotional dispositions (species, context)
                - Emotional responses (specific situations)
Specific emotional dispositions toward species in context

Behavioral intentions (specific situations) → Emotional responses (specific situations)

Norms/attitudes (species, context) → Emotional dispositions (species, context)

Wildlife value orientations (general) → General emotional dispositions to wildlife

Values → Personality traits
Emotional responses

Behaviors/experiences (specific situations)

Behavioral intentions (specific situations) → Emotional responses (specific situations)

Norms/attitudes (species, context) → Emotional dispositions (species, context)

Wildlife value orientations (general) → General emotional dispositions to wildlife

Values → Personality traits
Scientific questions

“Vertical” questions, e.g.:
• To what extent do personality variables influence emotional dispositions and responses?
• Do emotional dispositions mediate between personality traits and emotional responses?

“Horizontal” questions, e.g.:
• How are emotional dispositions related to cognitions?

Methodological questions, e.g.:
• Can general and context-specific emotional dispositions toward wildlife be empirically differentiated?
Questions and discussion

- Behavioral intentions (specific situations)
- Emotional responses (specific situations)
- Norms/attitudes (species, context)
- Emotional dispositions (species, context)
- Wildlife value orientations (general)
- General emotional dispositions to wildlife
- Values
- Personality traits