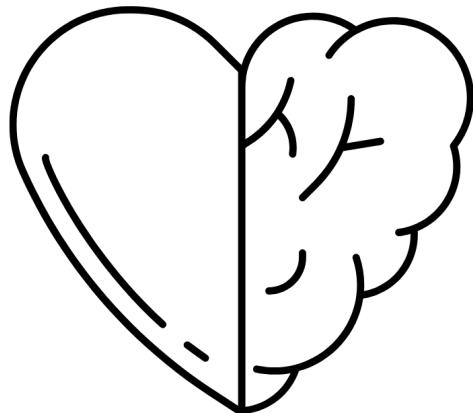


Navigating emotions in science

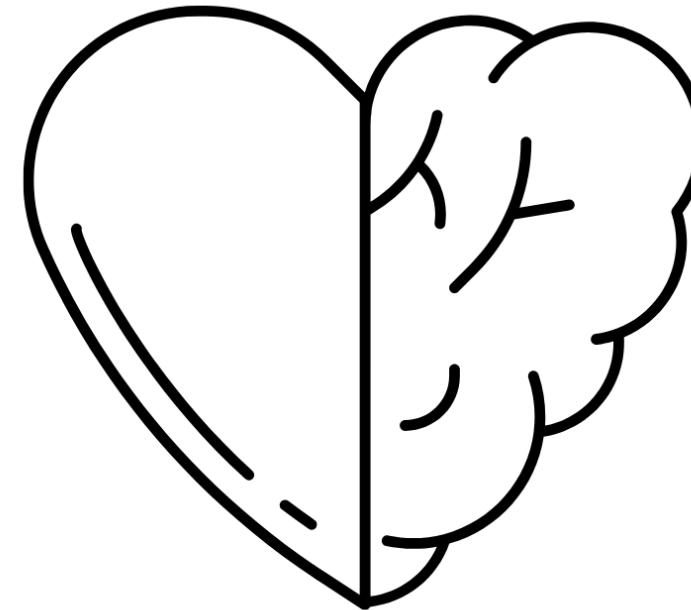
What to win by integrating Emotions to Science

Julia Königer, PhD, University of Vigo



Navigating emotions in science

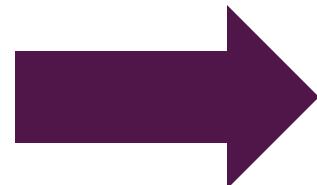
1. Reuniting the split
2. Research creation: Learning from our ancestors
3. From the life of a soil scientist
4. Lets go on soil safari



The False Split: Reason vs. Emotion



- Emotions seen as “unscientific”
- Personal experience often excluded
- Emotional labor is hidden
- Curiosity rooted in grief, wonder, care
- Feeling as method
- What moves us sustains us



**Detachment is
not a neutral stance**

The World We're Researching in

A World in Crisis: The Emotional Weight of Scholarship

- Climate collapse
- Rising authoritarianism
- Deepening inequalities
- Emotional burden on researchers

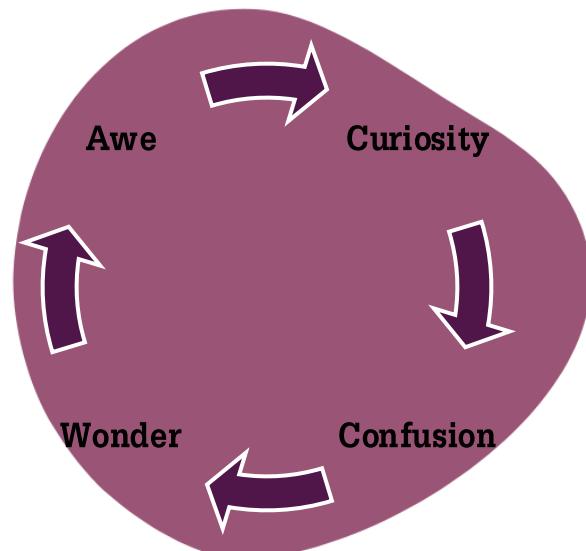
--> How to handle grief-laden fields?



Emotion as Moral Insight in Science

“Emotions help us to identify what matters morally. They are not barriers to objectivity, but portals to moral clarity.” **Batavia et al. (2021):** *Emotion as a Source of Moral Understanding in Conservation*

- Epistemic emotions to learn (positive: curiosity, surprise, enjoyment, confusion; negative: anxiety, frustration (Vilhunen et al. 2022))
- Emotions aren’t noise—they’re signals of moral salience
- Emotional responses (e.g., grief, love, anger) can guide ethical decision-making
- Can science/conservation be value-neutral?



Effective communication

- Use emotions rather than facts to convey message (Toomey 2023)
- Consider motivated reasoning: *accepting information aligning with preexisting beliefs and resisting facts threatening worldview*: Frame messages to resonate with the audience's values
- Build trust and credibility through relationships and shared identities
- **Psychological science** needed for effective conservation message framing (MacFarlane & Rocha 2020)
- Train next generations in cognitive and behavioural science for better public understanding (attitudes and actions are cause and solution of environmental crisis)

Toomey (2023): "Why Facts Don't Change Minds: Insights from Cognitive Science for the Improved Communication of Conservation Research"
MacFarlane & Rocha (2023): "Guidelines for communicating about bats to prevent persecution in the time of COVID-19"

Research Creation:

a methodology that not only acknowledges but cultivates emotional awareness as part of academic rigor.

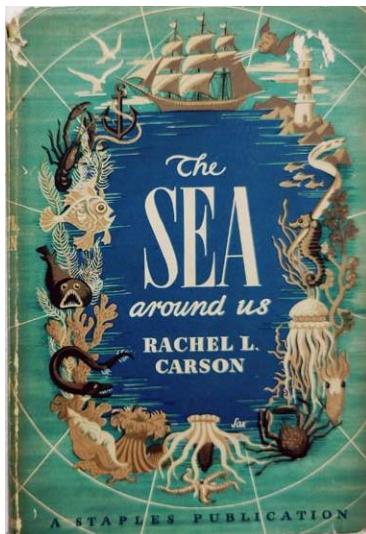
- Combining artistic & scholarly practice
- Methods: storytelling, visual art, performance
- Holding space for vulnerability, beauty, rage

Practicing Research-Creation: Tools & Tactics

- Story circles & co-writing
- Art as fieldwork
- Creative rituals for grounding

Kinship, learning from our ancestors

- **Rachel Carson:** *"The Sea Around Us"*. The power of emotionally communicated science to activate collective action



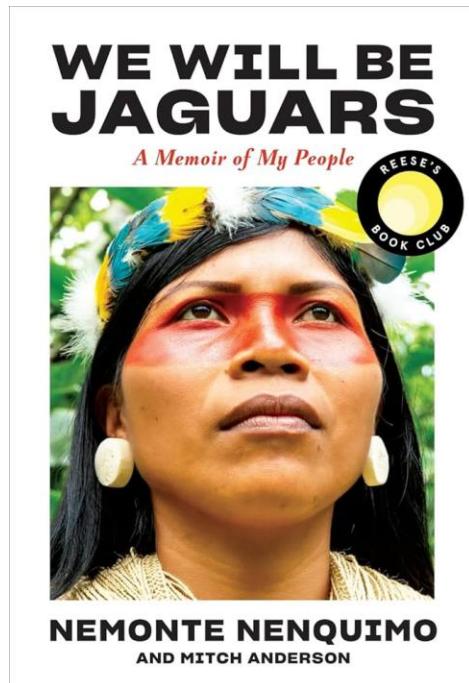
"To stand at the edge of the sea, to sense the ebb and flow of the tides, to feel the breath of a mist moving over a great salt marsh, is to have knowledge of things that are as nearly eternal as any earthly life can be."

"In every drop of water, there is a story of life."

"It is a curious situation that the sea, from which life first arose, should now be threatened by the activities of one form of that life."

Kinship, learning from our ancestors

Nemonte Nenquimo: "We will be jaguars". Ecology of emotion, emotional depth—grief, rage, love, hope—which is not separate from knowledge, but rather a central way of knowing.

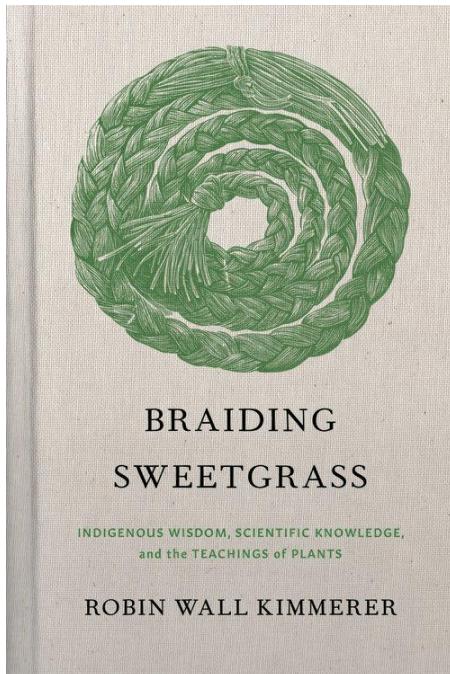


"I am not writing to be read. I am writing so that my people will be heard."

"We speak with the forest. Our dreams are guided by rivers. Our learning does not begin in school. It begins with listening to the rain."

Kinship, learning from our ancestors

Robin Wall Kimmerer: *"Breeding sweetgrass"* Knowledge as Reciprocity. Emotions like care, gratitude, and awe are central to knowing—not side effects



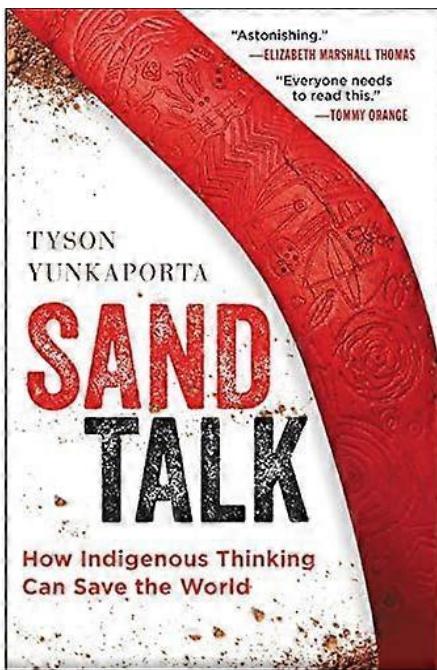
"In some Native languages the term for plants translates to 'those who take care of us.'"

"I dream of a world guided by a lens of stories rooted in the revelations of science and framed with an Indigenous worldview—stories in which matter and spirit are both given voice."

"Listening is the doorway to all learning."

Kinship, learning from our ancestors

Tyson Yunkaporta: "Sand Talk" invites researchers to think and feel differently—through story, symbol, and lived connection.



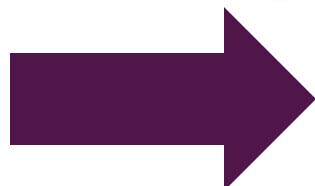
"The problem with non-Indigenous knowledge systems is that they begin and end with theory. Ours begin and end with story."

"I don't know where this yarn will go, but I know it will find its way. That's how knowledge travels—it follows the songlines."

"This book is not a metaphor, and it is not an allegory. It's a yam. And if you try to reduce it to theory, it'll wriggle away from you like a snake."

Indigenous epistemologies:

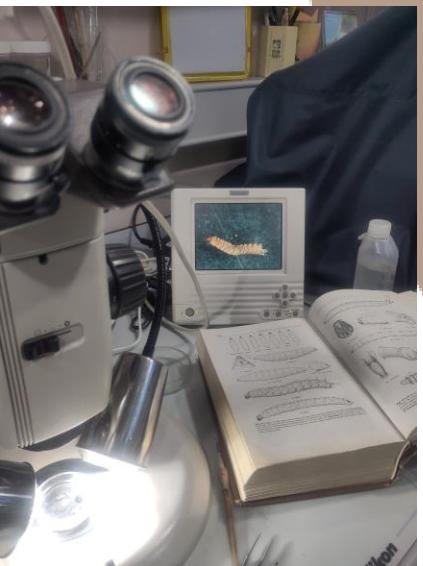
- Knowledge as living relational
- Emotion and intellect intertwined
- Healing and resistance as research practices
- Embrace improvisational, conversational mode of knowledge-making, nonlinear, intuitive unfolding as well as ideas developing through making, not prior to it.



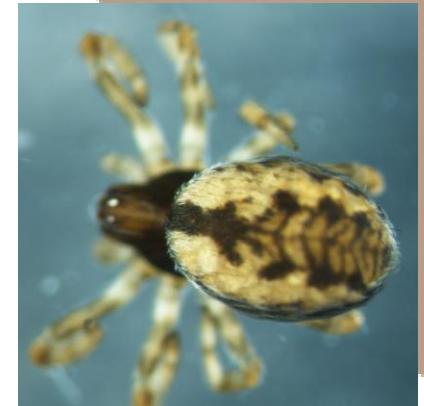
Feeling Our Way Forward

- Emotion is a resource
- Creative research is rigorous
- Connection sustains activism

From the soil pit



Stunning diversity

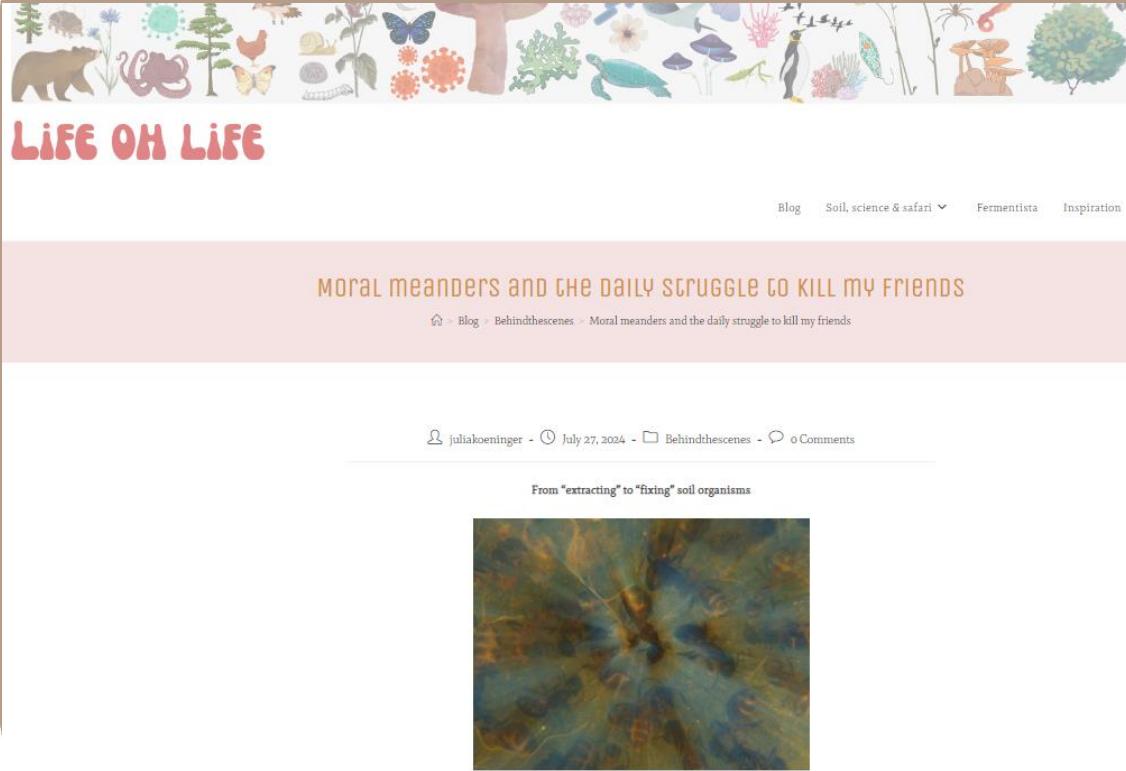


Stunning diversity





Grieving with declining biodiversity, hating the killing part



www.life-oh-life.com

Let's go on a soil safari!



References

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Vilhunen, E., Turkkila, M., Lavonen, J., Salmela-Aro, K., & Juuti, K. (2022, April). Clarifying the relation between epistemic emotions and learning by using experience sampling method and pre-posttest design. In *Frontiers in Education* (Vol. 7, p. 826852). Frontiers Media SA.

Examples of research creation

- Rachel Carson, *The Sea Around Us*
- Sophie Strand, “Confessions of a Compost Heap”
- Tyson Yunkaporta, *Sand Talk*
- Nemonte Nenquimo, *We Will Be Jaguars*
- Robert Macfarlane, *Is a River Alive?* (forthcoming)

Suggested Listenings

- Future ecologies podcast
- *Emergence* podcast