

Cultivating emotional connection with species and habitats

Insights from an interdisciplinary undergraduate module

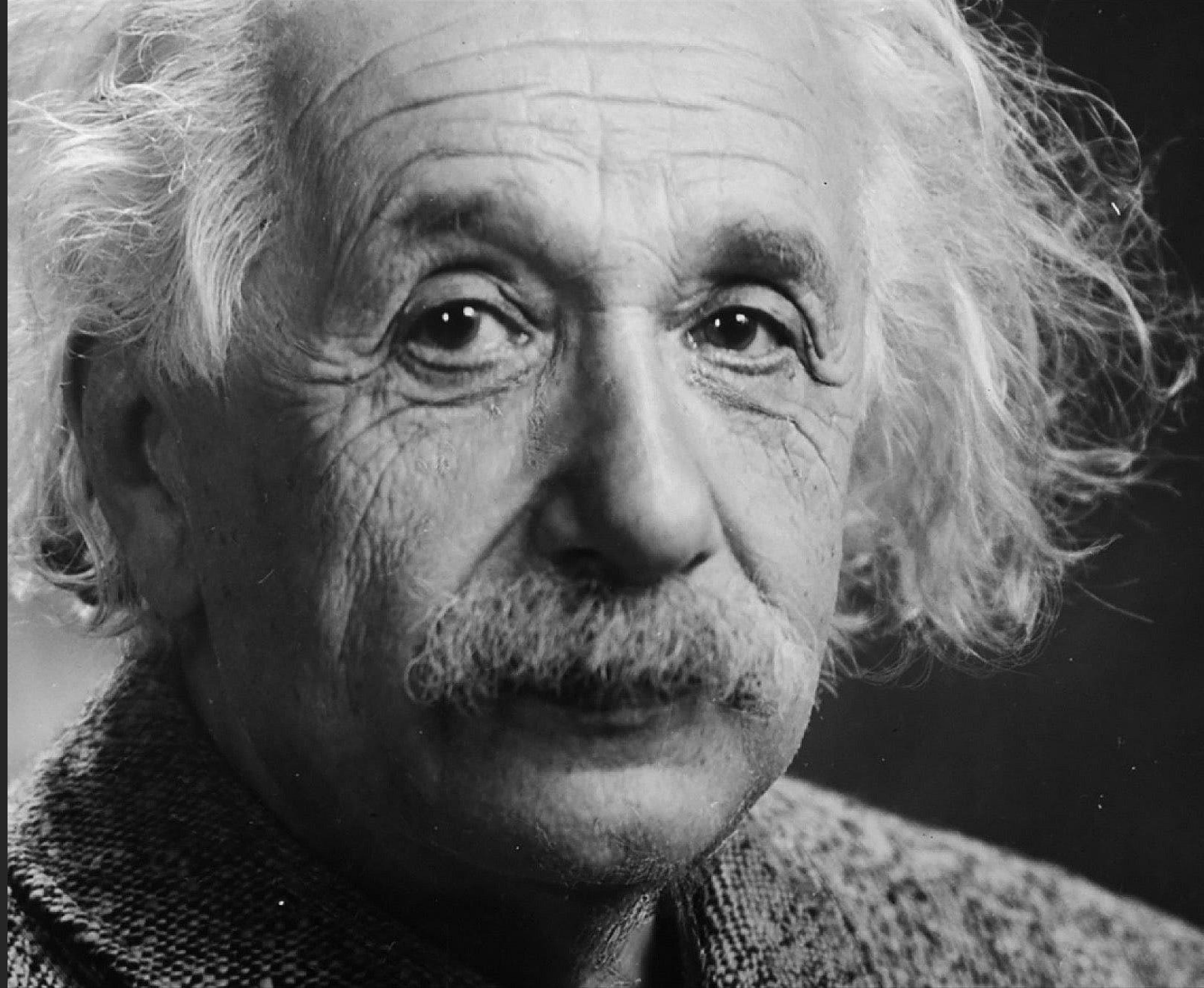


Ash Brockwell and Ella Miodownik
London Interdisciplinary School

"We can't solve problems using the same level of thinking that we used when we created them."

- Albert Einstein

Photo: [iStock](#) via Flickr



"How do we think our way
through the messes we're in
when the way we think is
part of the mess?"

- Nora Bateson

Photo: Warm Data Lab

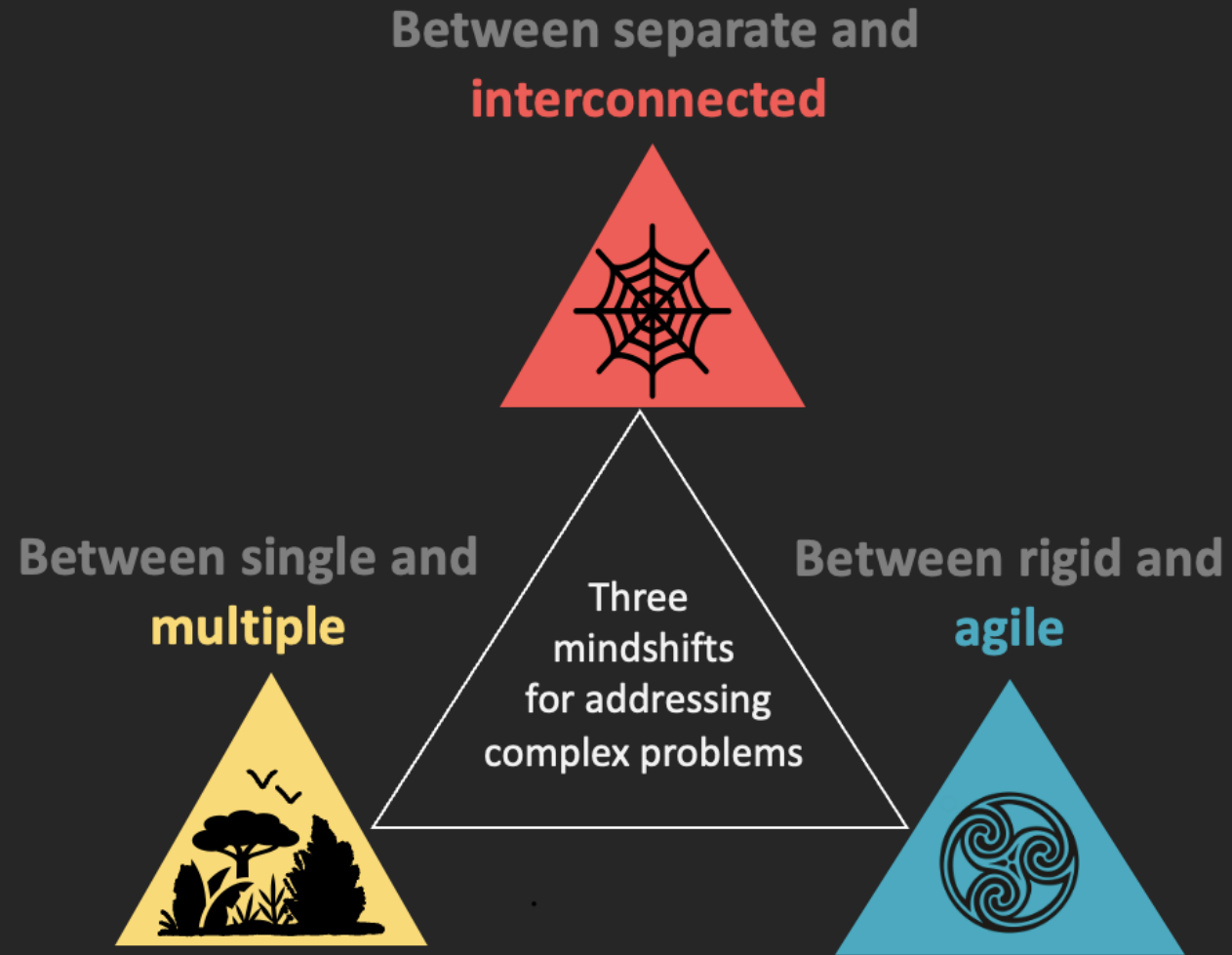


Three Mindshifts

framework inspired by:

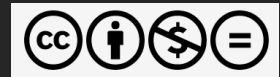
- 'Sustainability'
- Systems thinking
- Decolonial education

(LIS Problem-Based
Learning Strategy, 2024)



'Mindshifts x Complex Problems' by Ash Brockwell, 2023. [CC-BY-NC-ND 4.0](#)

Triple spiral image by [Craftsmanspace.com](#), [CC BY-SA 3.0](#)





A Mindshifts Module?

- 'Encountering Ecosystems through Mixed Methods Research and Practice'
- Level 6 (third year undergraduate) module
- Bachelor of Arts and Sciences (BASc) degree in Interdisciplinary Problems and Methods



Interdisciplinarity in the module

- **Quantitative methods** from ecology and ethnoecology
 - **Qualitative methods** from ethnoecology, political ecology, environmental anthropology, and art
 - **Integration** through individual creative practice
-



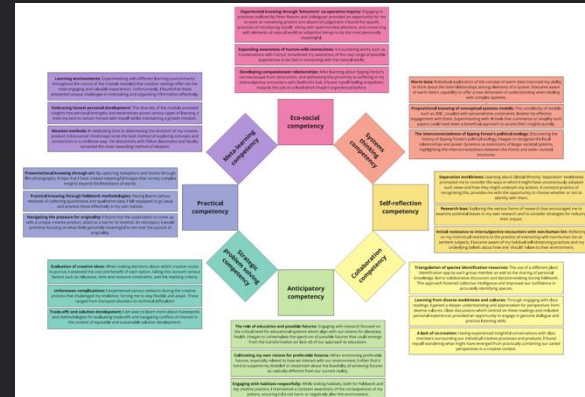
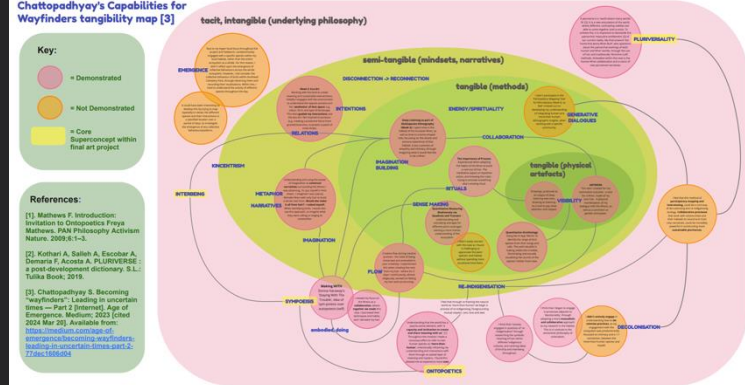
'A creative product in any medium' (plus 1000-word text)



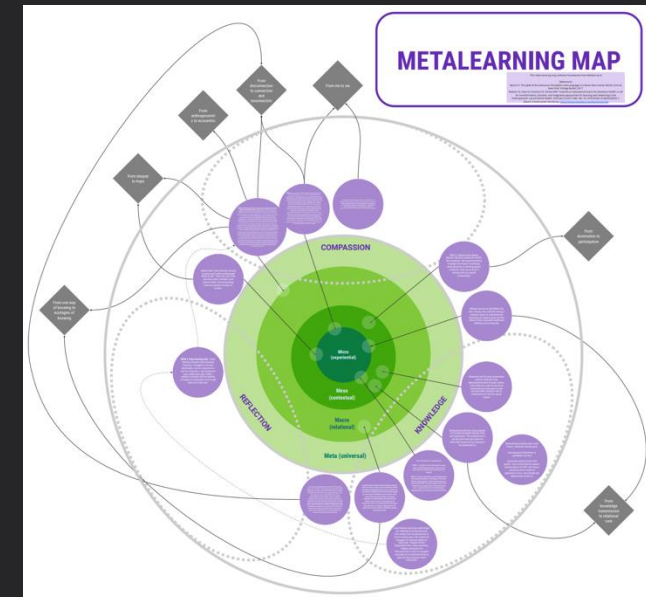
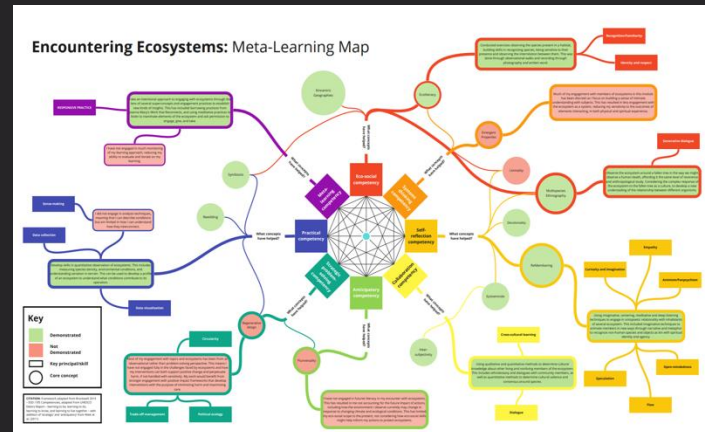
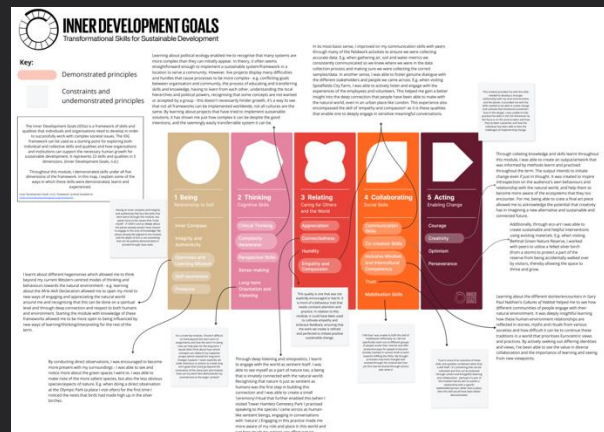
Meta-Learning Maps

MetaLearning map, Encountering Ecosystems

Inspired by Sahana Chattopadhyay's Capabilities for Wayfinders tangibility map [3]



'What did you learn?'
(with reference to a framework)





Interviews: IPA methodology*

What was it actually
like to undergo a mindshift?

Experience

Realise

What did you learn

Struggle with

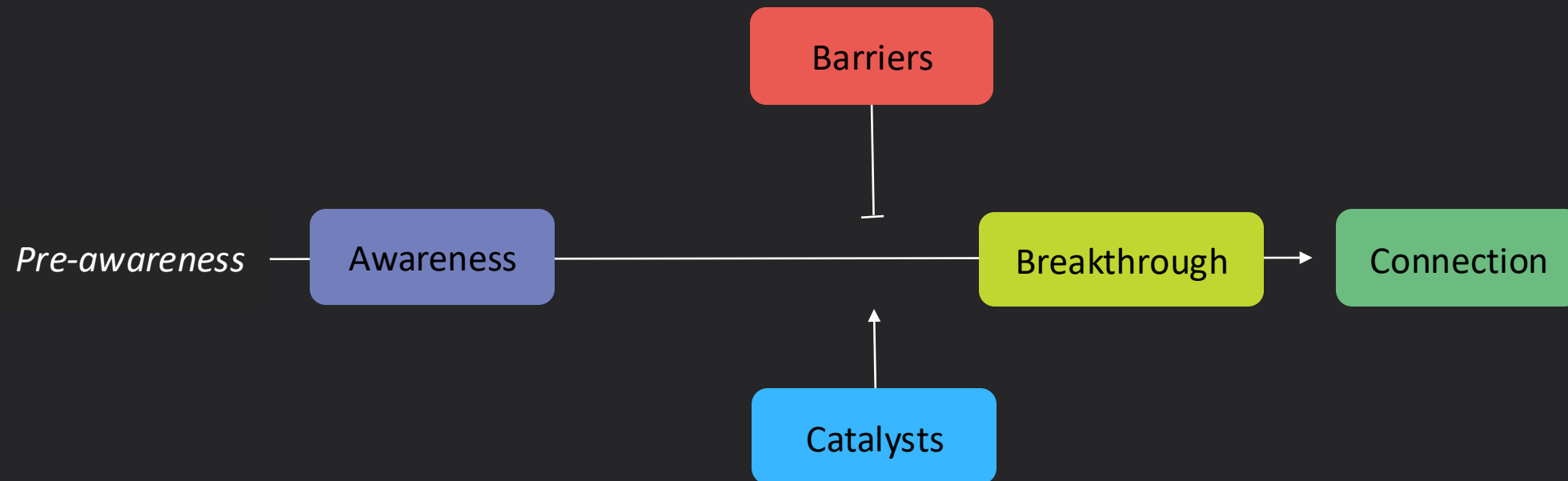
Feel

Take with you

Let go of

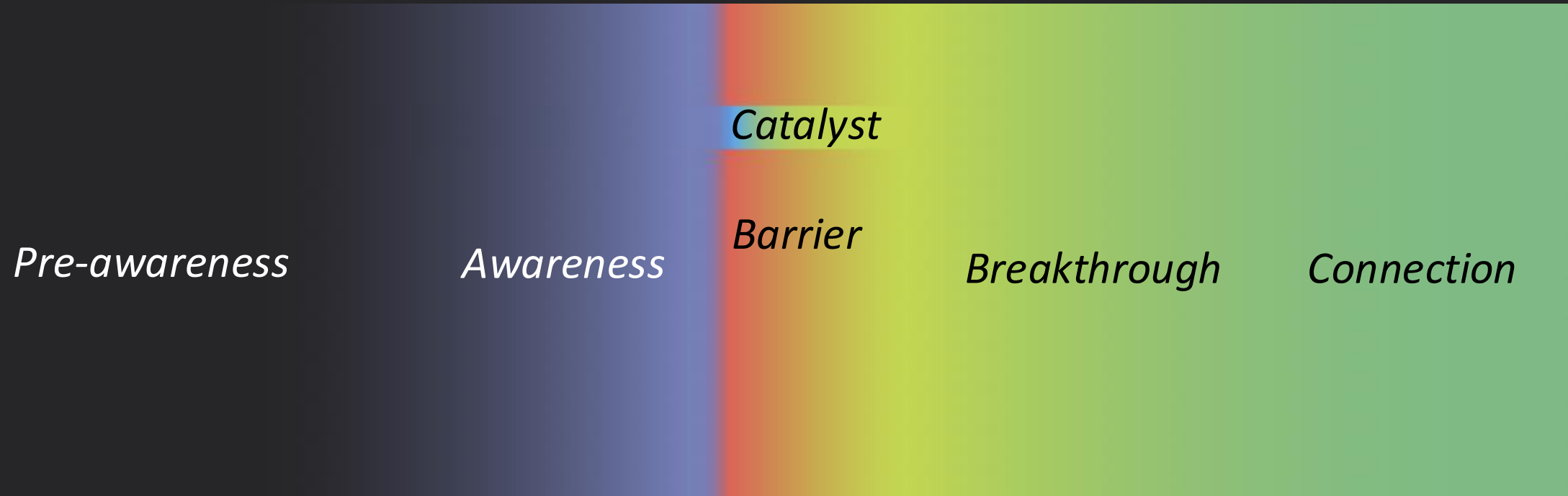
* that's IPA as in 'interpretative
phenomenological analysis', not the beer.

Thematic categories



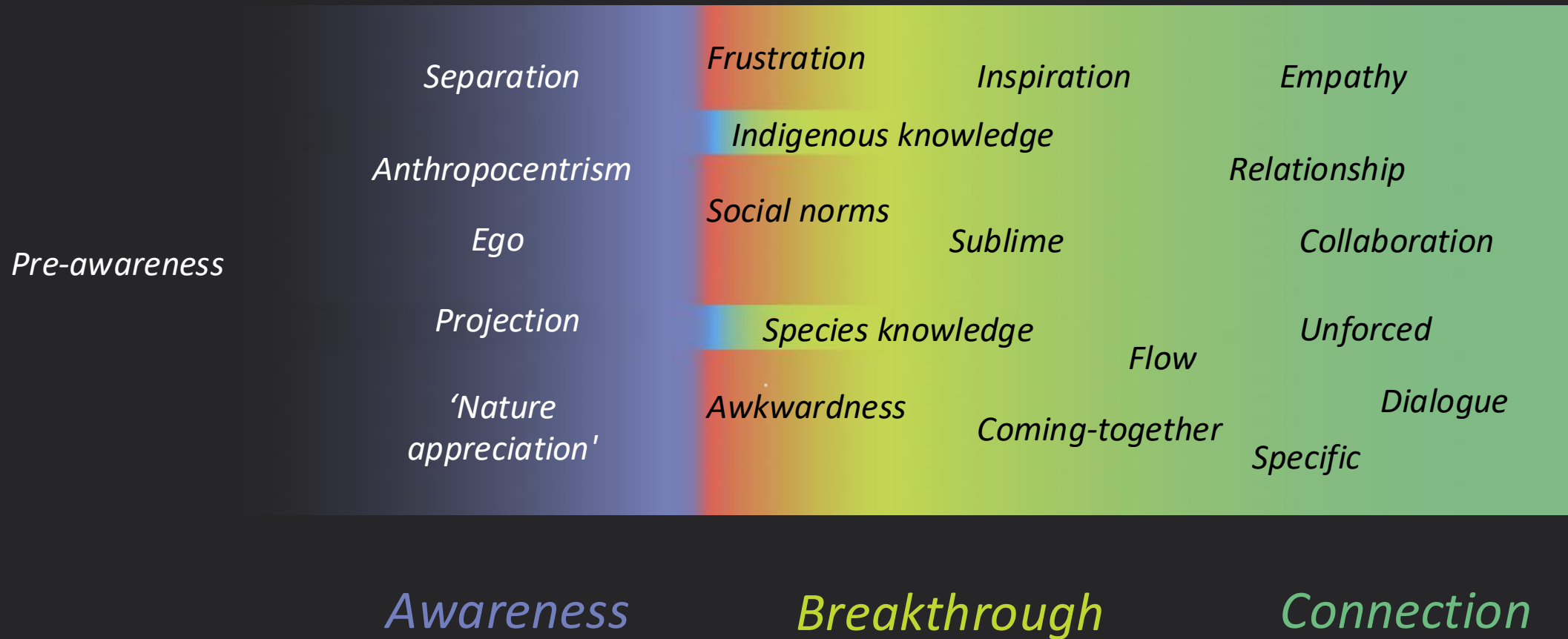


Experiential Plot

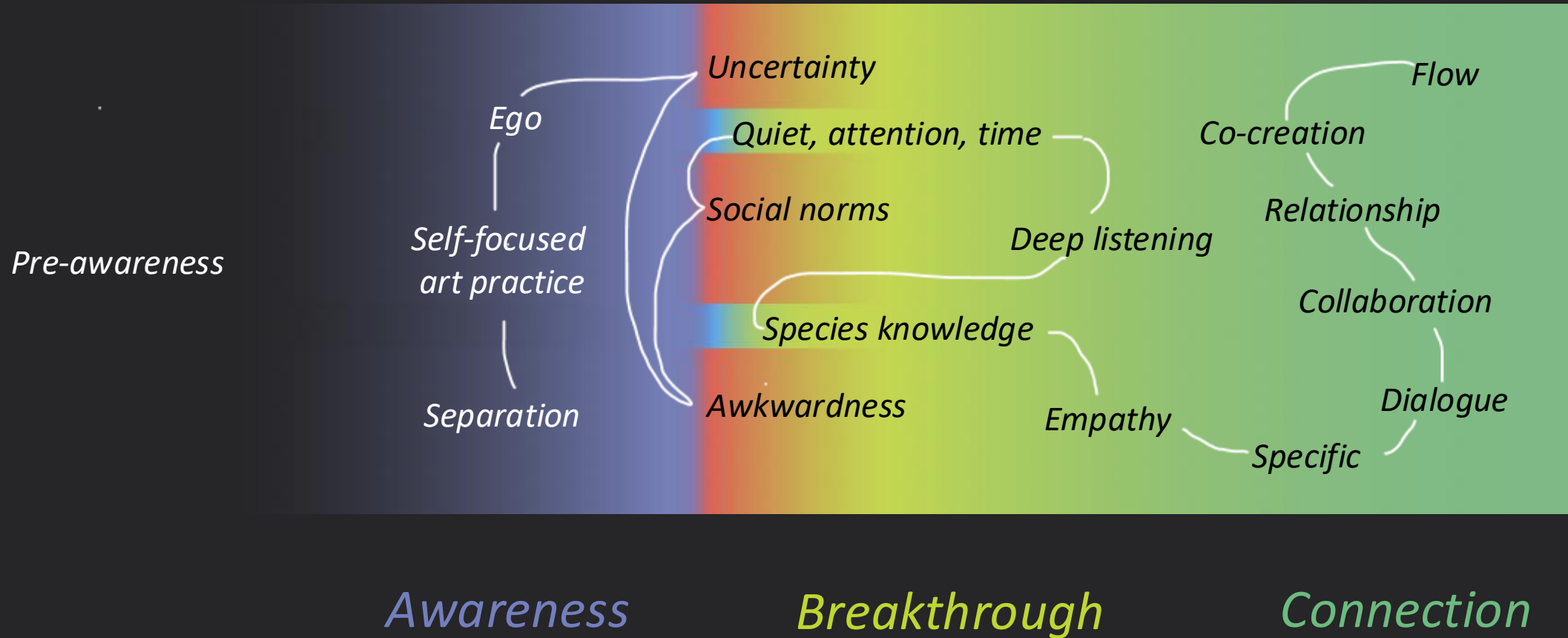




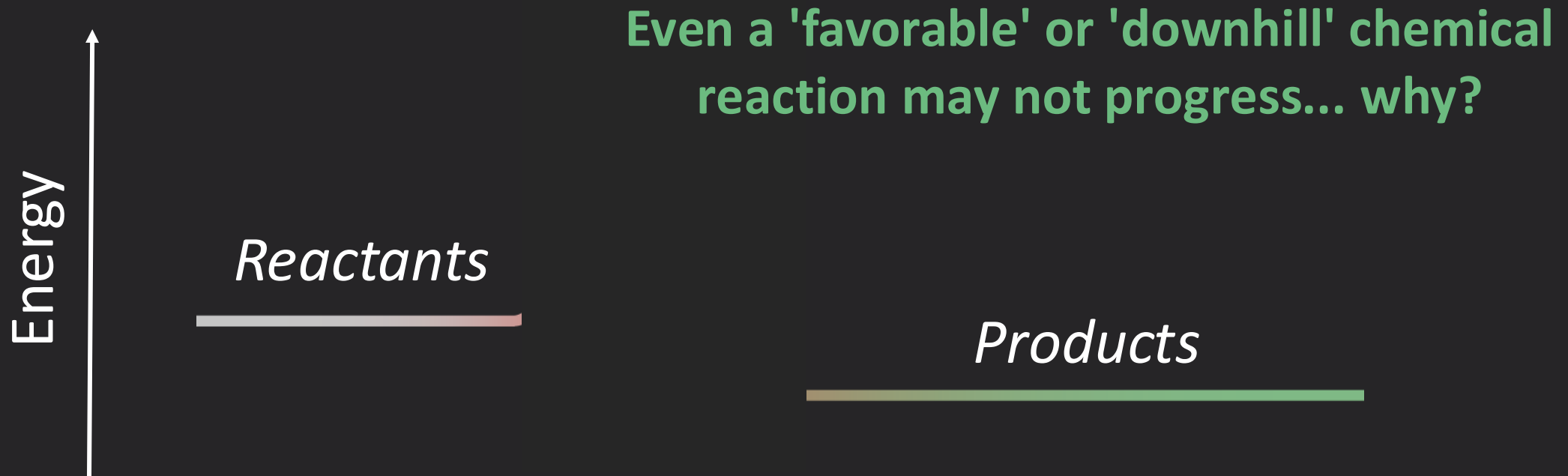
Experiential Plot [generic]



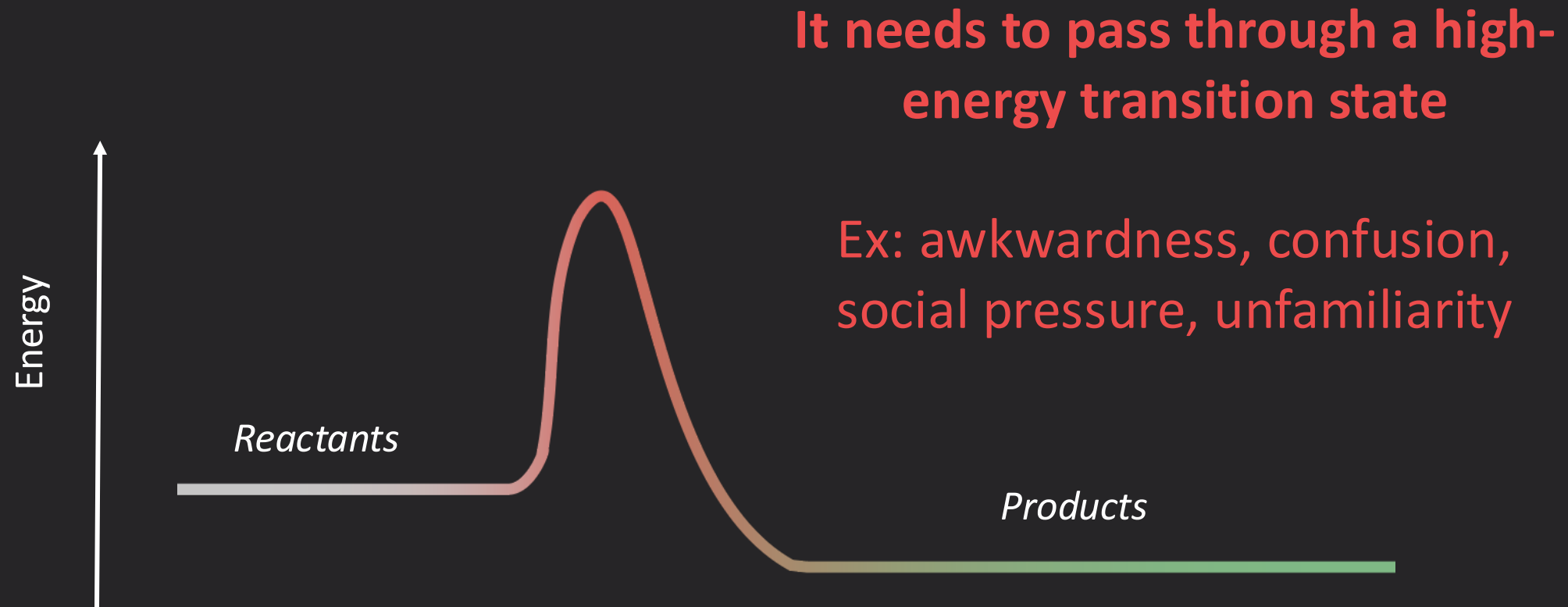
Experiential Plot [a specific example]



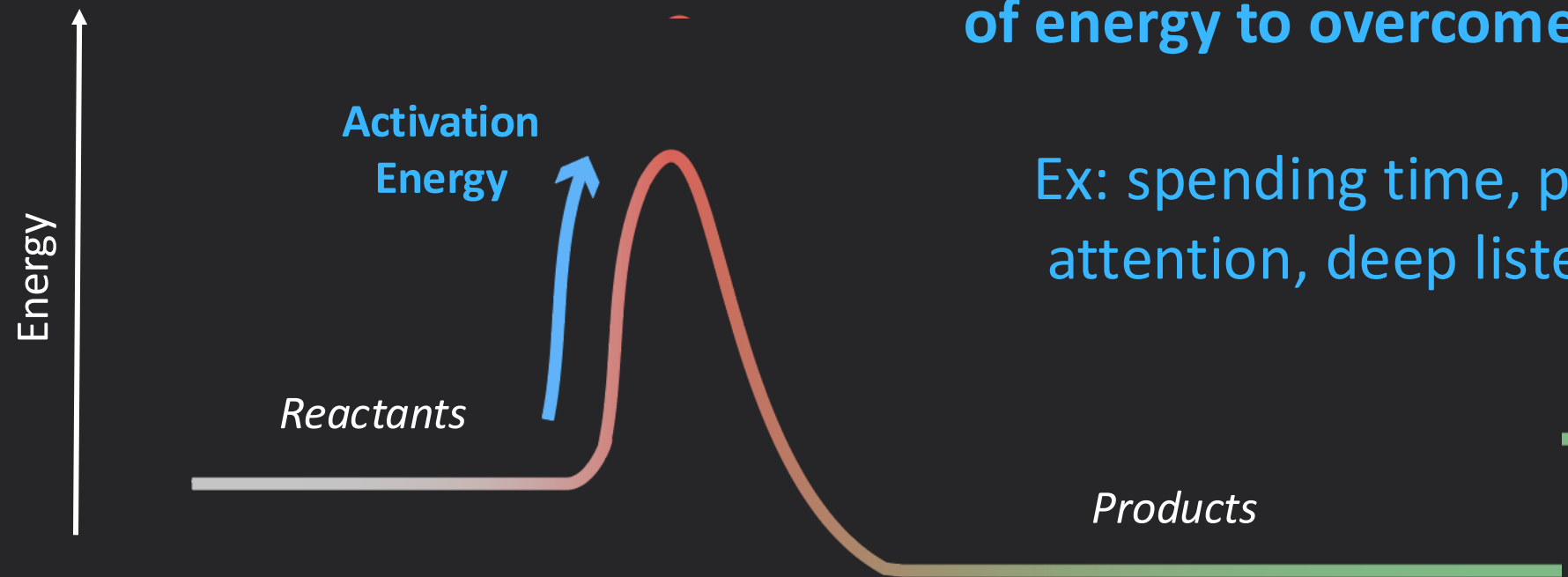
A metaphor from chemistry



Energy barrier



Activation energy



Activation Energy: Needed input of energy to overcome barrier

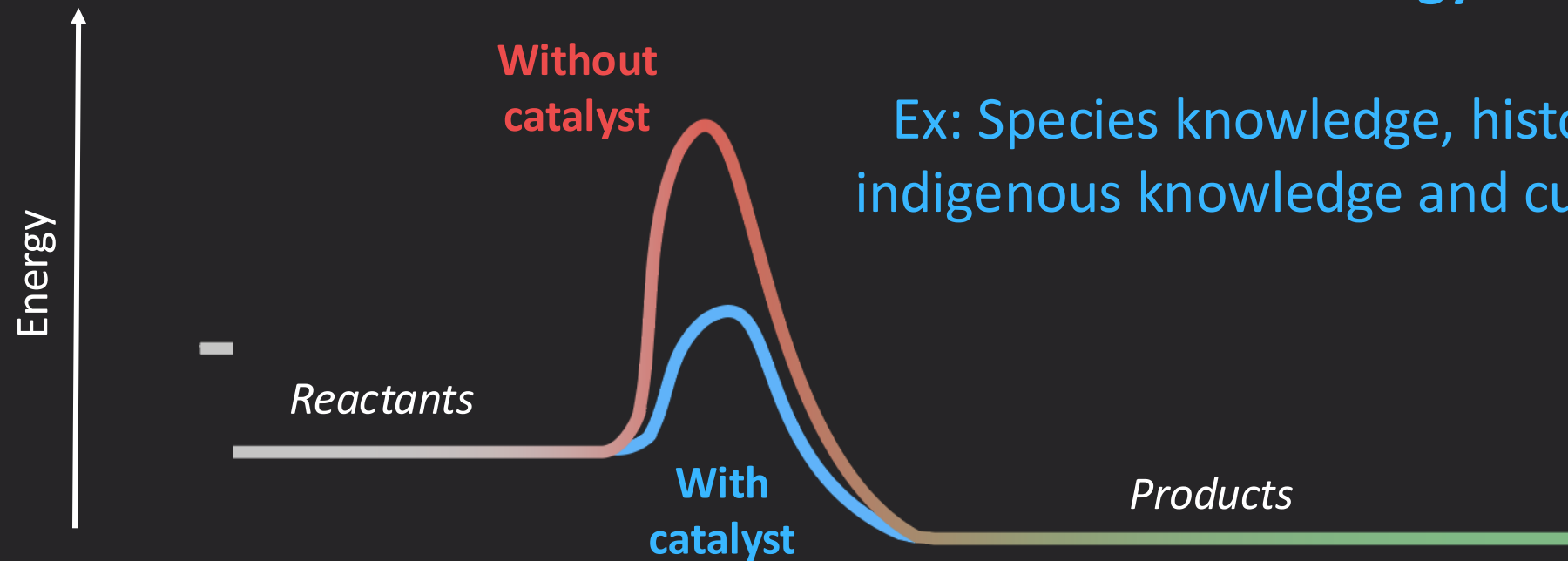
Ex: spending time, paying attention, deep listening

Catalyst



Catalyst: Alternate reaction pathway that lowers energy barrier

Ex: Species knowledge, historical context, indigenous knowledge and cultural practices



In conclusion...

- Both natural sciences (ecology methods) and social sciences (anthropology and political ecology) can lower the barriers to emotional connection with species and habitats
- Interdisciplinary integration through creative practice can be a powerful way to trigger mindshifts

