

A sunset over a large body of water with mountains in the background. The sky is a gradient of orange and red, and the water is dark with a small boat visible in the distance.

Active externalism and biosemantics

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Aims

To:

- Explain a problem with Millikan's etiological account of meaning
- Show how Millikan's problem is analogous to the problem faced by Putnam's account
- Draw some general conclusions relevant to externalist theories of meaning



Outline

- Putnam's externalism about meaning
- The unlikely story of twin aliens
- Active externalism
- Millikan's etiological account
- The even less likely story of twin lions
- Dynamic function
- General lessons

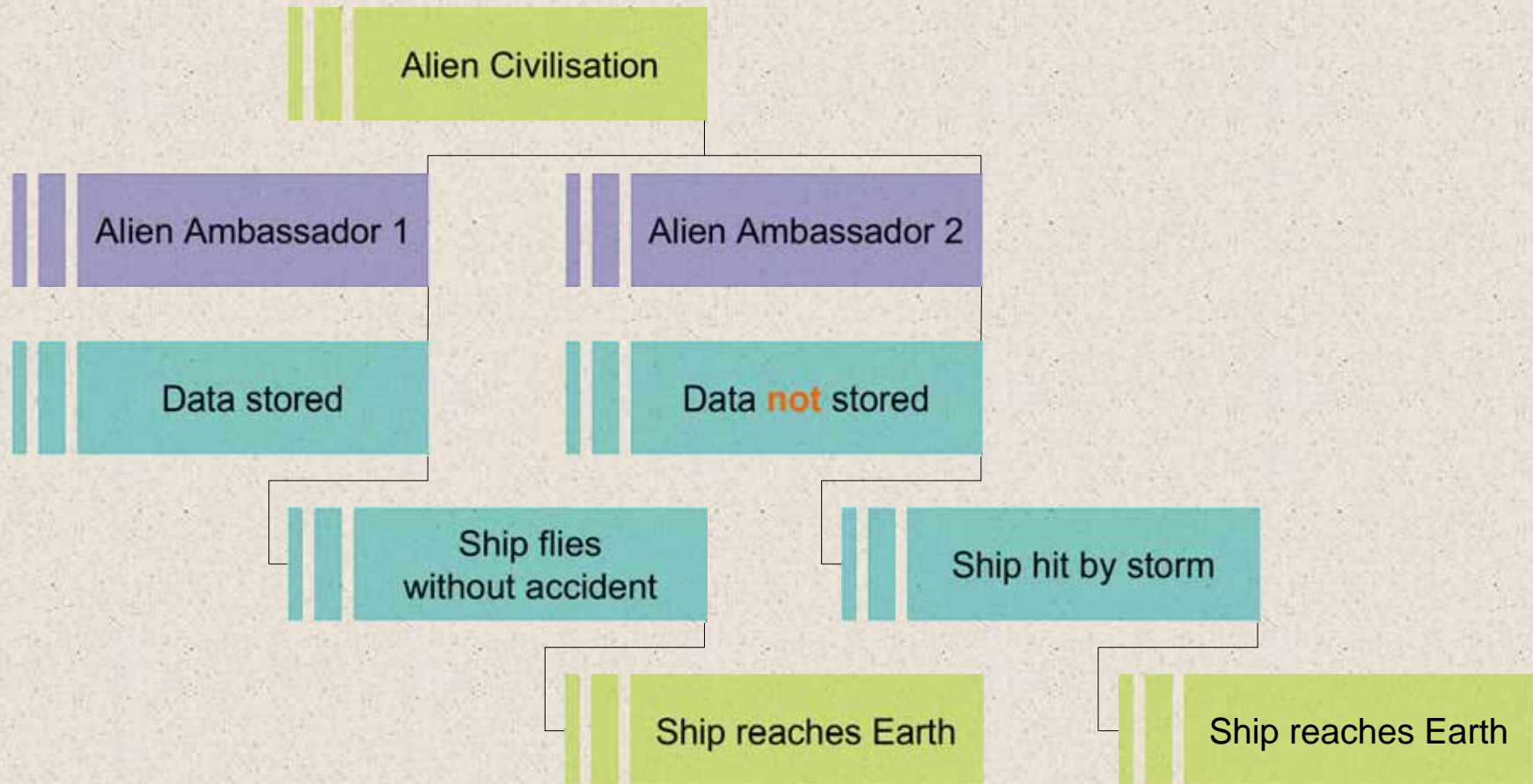


Putnam's externalism

- Putnam, H. (1975) *Mind, Language, and Reality*: Philosophical Papers, vol. 2. Cambridge: Cambridge University Press
- Reference fixed at dubbing
- Instances of using the term share the reference due to a causal chain back to the reference-fixing



The unlikely story of twin aliens





Active externalism

- Clark, Andy and Chalmers, David J. (1998) The Extended Mind *Analysis* 58(1):pp. 7-19
- For passive externalism relevant external features are passive – 'dangling at the end of a causal chain'
- In active externalism the relevant external features are 'in the loop'
 - Scrabble example

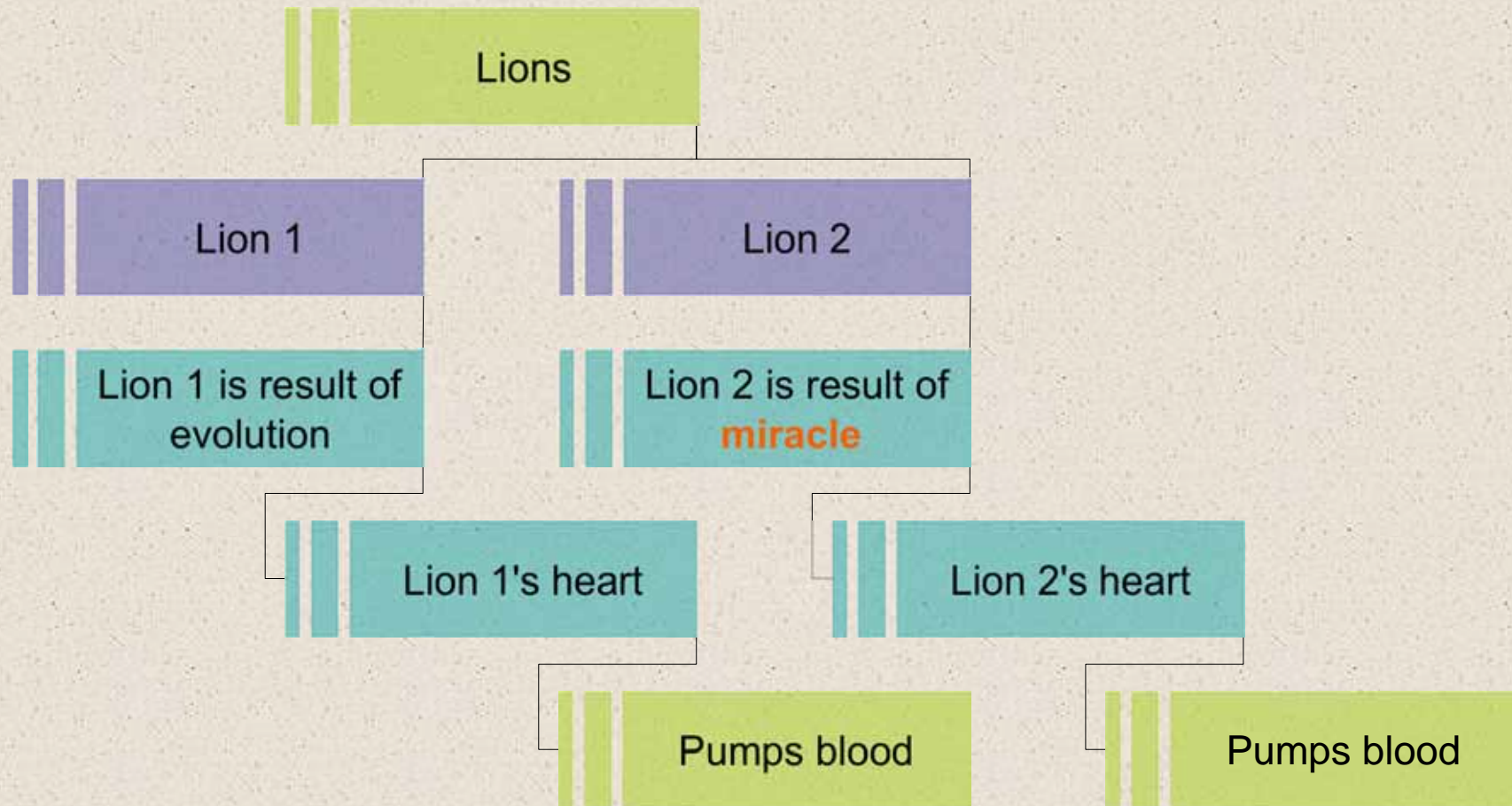


Millikan's etiological account

- Millikan, R. G. (1984) *Language, Thought, and Other Biological Categories* Cambridge, MA: MIT Press
- 'An item X has proper function F only if (i) X is a reproduction of some prior item that, because of the possession of certain reproduced properties, actually performed F in the past, and X exists because of this performance...'



The even less likely tale of twin lions





Dynamic function

- Bickhard, M. H. (1993) Representational Content in Humans and Machines *Journal of Experimental and Theoretical Artificial Intelligence* 5, 285-333
- Collier, J. (2000) Autonomy and Process Closure as the Basis for Functionality *Closure: Emergent Organizations and their Dynamics*, (ed) J. Chandler, G. van de Vijver, 280-291
- History causally efficacious via current state
- Etiology gives a causally epiphenomenal account of function
- Inadequate for a naturalist account of function
- A dynamic account
 - Externalist
 - Active
 - Naturalist



General lessons

- Too much externalism can be a bad thing
- Relevant external features should be limited to such features as are directly causally efficacious



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What is the significance of the picture of Rangitoto?