

Lecture 8: Problem Set 8 (Due Friday Apr. 20)

Reading: Emotion Machine, Chapter 7

Problem 1

In order to find meaningful answers you must first be able to formulate good questions. List ten questions you would like to answer about Chapter 7.

Problem 2

On pg. 229-230, Minsky lists examples of critics and selectors for the top 4 layers (deliberative, reflective, self-reflective, and self-conscious). For example, in the deliberative layer, "An action did not achieve the expected effect" is a critic, while "Find a better way to predict" is a selector that this critic activates.

- a) For each of these four layers, list two additional critic-selector pairs.
- b) Describe a way to activate a common Emotion as a way to think, such as Anger, Compassion, Pity, Empathy, or Sympathy, in terms of description of critic-selector pairs.
- c) Think about implementing a critic. What would it mean for the critic to be 'activated'. Explain how this could be done and what other computational resources would be required. (For ideas, consult Push Singh's PhD thesis.)

Problem 3

Section 7-4 discusses many different examples of useful ways to think.

- a) Choose your favorite three of these ways to think and give an example of each.
- b) Think of your own problem that can't be solved by any of these ways to think.
- c) Describe a new way to think that can solve this problem.

Problem 4

Solving the problems in this problem set could be considered an intelligent task.

- a) Describe at least three critic-selector pairs that helped you to solve the problems in this problem set.
- b) Try to categorize the critics and selectors of part (a) into the layers of Model-6. Discuss why you chose the classification for each critic or selector resource.