Short Essay Assignment: Paradox of the Ravens

Draft date: March 27th, 8pm
Due date: April 3rd, 8pm
Word count: around 1000 words (typed; no other formatting requirements)

Assignment. Write a short essay about the Paradox of the Ravens. The essay should explain the problem, discuss one possible Bayesian analysis of the paradox, and assess whether that analysis solves the problem. On or after March 27th, you will read your partner's draft (the same one you worked with on Problem Set 2), and discuss with them what parts of the paper you found difficult to understand. A week later you'll hand in the final version.

You should turn in your work ***anonymously*** through ***Blackboard***. You should credit your partner for any ideas they contribute: you can refer to them as "my partner" to preserve anonymity.

Suggested outline:

1. Explain what, intuitively, it is for a piece of evidence to *confirm* a general hypothesis or theory (here you may want to draw a contrast between *confirmation* and *entailment*.)

2. Describe the Paradox of the Ravens in your own words. This part should include:
    a. A statement of the Nicod Criterion
    b. A statement the Equivalence Criterion
    c. A derivation of one or more Paradoxical Conclusions from those premises
    d. An explanation of why those conclusions seem problematic.

3. Provide an outline of the Bayesian theory of confirmation (BCT). This explanation should explain Bayes' Rule and Bayes' Theorem, and it should say when, according to BCT, a piece of evidence counts as *confirming* or *disconfirming* a hypothesis. You might also want to discuss what the probabilities in BCT represent.

4. Provide a Bayesian analysis of the paradox, examining whether the premises and the conclusion of the paradoxical argument are true under plausible assumptions about the probabilities involved. Make any additional assumptions that go into this analysis as explicit as you can.

5. Give an assessment of whether or not the analysis in (4) solves the problem you identified in (1). You could either argue that your analysis solves the problem, or raise a difficulty for the purported solution.

Keep it simple!