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[Unit 5 Reinforcement Learning \(2 weeks\)](#)

[Lecture 19: Applications: Natural Language Processing](#)

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## 5. NLP - Symbolic vs Statistical Approaches

### NLP - Symbolic vs Statistical Approaches

You can cast it is very simple machine learning problem

and get yourself a solution.

And in fact, the reason I think it's much better now

because there are even commercial packages which

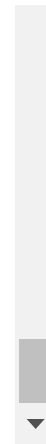
you could buy, and they will edit your grammar.

So you can see that through machine learning perspective,

**it's really, really an easy task.**



End of transcript. Skip to the start.



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## Symbolic Approach

1/1 point (graded)

Let us say that Alice and Bob are interested in building an NLP based system that can have a conversation with a medical patient in order to offer an accurate medical diagnosis for his/her symptoms.

It works by the NLP agent first asking the patient a series of questions about his/her medical condition and then suggesting a possible diagnosis that best fits his/her symptoms.

Alice decides that the best way to solve this problem would be by first automatically inferring medically relevant properties from a large training corpus of medical symptoms and their corresponding diagnoses.

Bob decides that it is best to take a different approach and encodes all the required information for this task into an elaborate knowledge representation which he then uses to make new predictions.

Which of the following is true regarding their approaches. Choose from the options below:

- ☐ Alice and Bob both took a symbolic approach
- ☐ Alice took a symbolic approach whereas Bob took a statistical approach
- ☐ Alice and Bob both took a statistical approach
- ☒ Alice took a statistical approach whereas Bob took a symbolic approach ✓

**Solution:**

Symbolic approaches usually encode all the required information into the agent whereas statistical approaches can infer relevant rules from large language samples.

This makes Alice's approach statistical and Bob's symbolic.

Submit

You have used 1 of 1 attempt

**i** Answers are displayed within the problem

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