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Assignment 4 NLP

1. **Evaluation of our MST parser**

   We achieve a 35% accuracy on the test set. The outcome can be enhanced by incorporating additional features (distance between the edge words for instance).

2. **Write a sequence of transitions under the Arc-standard transition system that yields the above tree for s. What is the length of the sequence?**

   The sequence is:
   1. Shift
   2. Shift
   3. Left - arc nsubj
   4. Shift
   5. Shift
   6. Shift
   7. Left - arc mark
   8. Right - arc ad
   9. Shift
   10. Shift
   11. Left - arc cc
   12. Right - arc conj
   13. Right - arc obj
   14. Right - arc root

   All in all, the length of the sequence is 14 (2 * #words)

3. **Write a sequence of transitions under the Arc-eager transition system that yields the above tree for s. What is the length of the sequence?**

   The sequence is:
   1. Shift
   2. Left - arc nsubj
   3. Right - arc root
   4. Right - arc obj
   5. Shift

6. Left - arc mark
7. Right - arc ad
8. Reduce
9. Shift
10. Left - arc cc
11. Right - arc conj

All in all, the length of the sequence is 11. Pay attention that the response is shorter than in the previous section.