Chapter 9

Syntax

9.1 What went wrong?

Below are some example sentences from newspaper articles.\(^1\) What exactly is going wrong in these sentences, and how can we hope to make computers understand them?

(9.1) Two cars were reported stolen by the Groveton police yesterday.

(9.2) Mrs. Consigny was living alone in her home in Nakoma after her husband died in 1954 when the phone rang.

(9.3) Black Panther leader Huey Newton, terming a 1974 murder charge “strictly a fabrication,” said yesterday he will testify at his trial on charges of killing a prostitute against his lawyer’s advice.

(9.4) Yoko Ono will talk about her husband John Lennon who was killed in an interview with Barbara Walters.

9.2 A simpler example

Let’s focus on one example: Imagine that we want a computer to turn statements into questions.

(9.5) a. The Pope is Catholic.
   b. Is the Pope Catholic?

(9.6) a. Soylent Green is people.
   b. Is Soylent Green people?

(9.7) a. Good fences make good neighbors.
   b. Make good fences good neighbors?
   c. Do good fences make good neighbors?

\(^1\)http://www.ling.upenn.edu/~beatrice/humor/newspaper-screwups.html
(9.8)  a. A man who is his own lawyer has a fool for a client.
      b. Is a man who his own lawyer has a fool for a client?
      c. Does a man who is his own lawyer have a fool for a client?

9.3 Tests for constituency

Can you move it around?

(9.9) Fences make, good good neighbors.
(9.10) Make good, good fences neighbors.
(9.11) Good neighbors, good fences make.
(9.12) Fences make good, good neighbors.
(9.13) Make good neighbors, good fences.

Can you replace it with something like a pronoun?

(9.14) They make good neighbors.
(9.15) Good they good neighbors.
(9.16) Good fences it/they/... neighbors.
(9.17) Good fences make them.
(9.18) They good neighbors.
(9.19) Good it/they/... neighbors.
(9.20) Good fences do.

Can it participate in a cleft?

(9.21) It’s good fences that make good neighbors.
(9.22) It’s fences make that good good neighbors.
(9.23) It’s make good that good fences neighbors.
(9.24) It’s good neighbors that good fences make.
(9.25) It’s good fences make that [do] good neighbors.
(9.26) It’s make good neighbors that good fences do.

Can it be the answer to a question?

(9.27) What makes good neighbors? Good fences.
(9.28) Good what good neighbors? Fences make.
(9.29) Good fences what neighbors? Make good.
(9.30) Good fences make what? Good neighbors.
(9.32) Good fences do what? Make good neighbors.