

## Which is true?

- A. Hand-written patterns are in general more precise than classifiers
- B. Hand-written patterns cannot exploit syntactic features
- C. Supervised classifiers do not require any human input
- D. Supervised classifiers can only detect typed statements

Answer A

Answer B is exactly the opposite of what is the case, that patterns exploit syntactic features. Classifiers requires human input for labelling. They also can be used to detect untyped statements.

## Which is true?

- A. Distant supervision requires rules for bootstrapping
- B. Classifiers produced with distant supervision are more precise than rules
- C. Distant supervision can help to detect rules

Answer C

Distant supervision does not require and rules, as opposed to bootstrapping. Classifiers from distant supervision tend to be less precise than hand-written rules, though in some cases they achieve comparable performance. Using complex features, distant supervision effectively detects new rules.

## Question

When searching for an entity  $e_{new}$  that has a given relationship  $r$  with a given entity  $e$

- A. We search for  $e_{new}$  that have a similar embedding vector to  $e$
- B. We search for  $e_{new}$  that have a similar embedding vector to  $e_{old}$  which has relationship  $r$  with  $e$
- C. We search for pairs  $(e_{new}, e)$  that have similar embedding to  $(e_{old}, e)$
- D. We search for pairs  $(e_{new}, e)$  that have similar embedding to  $(e_{old}, e)$  for  $e_{old}$  which has relationship  $r$  with  $e$

## Answer C

In the model for relation embedding individual entities have no embedding, therefore Answers A and B are not applicable. As for Answer D, it is not required that the existing embedding pairs  $(e_{old}, e)$  have a confirmed relationship. However, we could also search for embeddings of relations  $r$  that are similar to the embedding  $(e_{new}, e)$ .

## If t has no Hypernym ..

- A. It is a root concept
- B. It cannot match c such as t and X
- C. It is identical to the initial root concept
- D. It is a basic concept

### Answer A

Hypernym means that the concept has no more general concept, therefore it is a root concept. It cannot be part of the pattern from Answer B, since c would be a hypernym of t. In the search for hypernyms different root concepts can be found that have no relation among each other, which excludes Answer C.