xTitle

proposition & coherence in :schizophrenia: threads

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subject

Investigate reference marking, coherence and information structure in schizophrenia language by measuring distance of similar nouns within range of comment thread preceded by certain determinants.[1]

background

Inspired by Zimmerer et alii (#REF) we are interested in observations concerning coherence and propositional conditions in schizophrenia language, as these linguistic markers appear underinvestigated in research while they seem to play a crucial role within target group language. (As such seen as asset of thinking or world building capacity which might suffer from linguistic deficits within the range of positive symptoms.)

method

To compute distances we queried a corpus for matching conditions where certain (assumed) determiners appear before similar nouns. This distance should give us information structural evidence of how strong these noun occurences are connected, i.e. if a noun appears out of the blue mostly or if it somewhere before has been introduced to the audience. In information structure definitions this would be termed with **given and new information** Prince (1981#REF).

[1] snc.1:h2.pb.1000char/pg.queries

questions

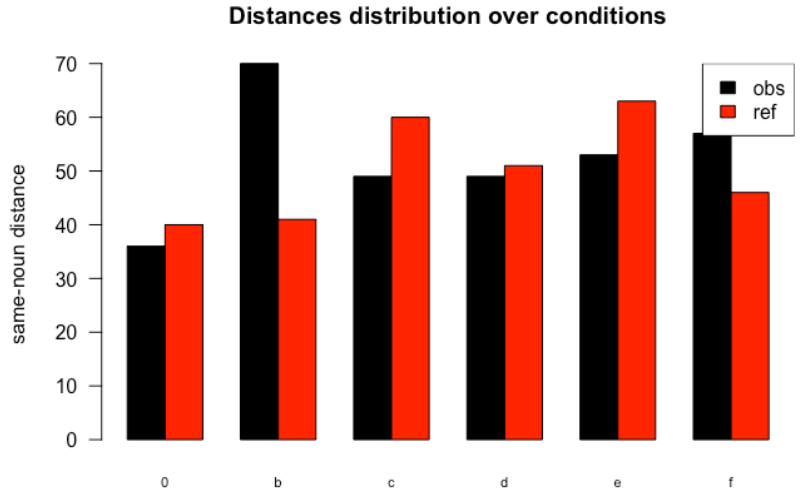
Measuring the referent-reference distance which we here assume as indicator of coherence we hope to find empirical evidence for disturbed or not world building capabilities within schizophrenia language. Premising that a large noun distance indicates a low reference-referent association we hypothesise that in a language/TOM setting where the speakers estimation of the audiences context understanding capacities is disturbed we will find higer medium scores for the distance under matching conditions.

daten

We built a corpus of the reddit r/schizophrenia thread (`n=747089` tokens) and a reference corpus of r/unpopularopinion (`n=265670`). The corpus has been pos-tagged using the R udpipe:: package #REF which tags according to the universal dependencies tagset maintained by #REF. Still the 747089 tokens can only, with the workflow of growing the corpus and devising the noun distances developed be just a starting point from where with more datapoints statistical evaluation becomes relevant first.

results

```
##    q dist  range corp corp_size      m   m_rel    ld
## 1  a   36  446.0  obs    747089 747089 1.00000 0.045
## 2  b   70 1451.0  obs    747089  11415 0.01528 0.045
## 3  c   49  807.0  obs    747089  12516 0.01675 0.045
## 4  d   49  834.0  obs    747089  15141 0.02027 0.045
## 5  e   53  917.0  obs    747089   6983 0.00935 0.045
## 6  f   57 1119.0  obs    747089   4236 0.00567 0.045
## 7  a   40 1619.5  ref    265670 265670 1.00000 0.076
## 8  b   41 2140.0  ref    265670   4213 0.01586 0.076
## 9  c   60 2116.5  ref    265670   6542 0.02462 0.076
## 10 d   51 1863.0  ref    265670   6349 0.02390 0.076
## 11 e   63 2947.5  ref    265670    662 0.00249 0.076
## 12 f   46 2473.5  ref    265670   1576 0.00593 0.076
```




```
## {"a":{"token":["#intercept"]},"b":{"token":
["this","that","these","those"]},"c":{"token":["the"]},"d":
{"token":["a","an","some","any"]},"e":{"token":["my"]},"f":
{"token":["your","their","his","her"]}}
```


conclusion

In condition **B** (`this, that, these, those`) which we hold for the most speaking determinants illustrating the speakers idea, that the information about a reference is already **given** we find significantly higher distance scores in the target corpus which proves our hypothesis. The overall p-value of p=0.0672215 for our distances distribution is still to be tested for dependency on a general lexical diversity (type/token-ratio) within the corresponding observed range.

B. REF: