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Self-paced reading experiment on topicalization

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phenomenon: topicalization

Thetic sentence:

Maya likes **John** the most ...

Two forms of topicalization

Left Dislocation (LD) :

John, Maya likes **him the** most ...

Topicalization (TOP) :

John, Maya likes **∅ the** most ...

research question / hypothesis

question

Is the computation of one type of topicalization more cognitively demanding than the other?

hypothesis

The reading time of the word following the pronoun will be faster than the reading time of the word following the empty element.

variables

independent variable

Type of topicalization

levels → LD - TOP

dependent variable

Reading time of the word following the pronoun or the empty element

methodology - stimuli

a set of minimal pairs of stimuli consisting in sentences with or without the pronoun in the canonical position

Avoid priming → two lists and fillers

Ensure the quality of the trials → questions

methodology - coding (Ibex Farm)

```
newTrial( "experiment",
  newController("DashedSentence", {s : "Nico, Luna fancies him the most out of the boys."})
  | .print()
  | .log()
  | .wait()
  | .remove()
  ,
  | newText("experiment", "Question: Does Luna fancy Nico the most out of the boys? Press Y for yes and N for no.", "YN")
  | .print()
  ,
  | newKey("answerTarget", "YN")
  | .wait() // Only proceed after a keypress on Y or N
  | .test.pressed("Y")
)
```

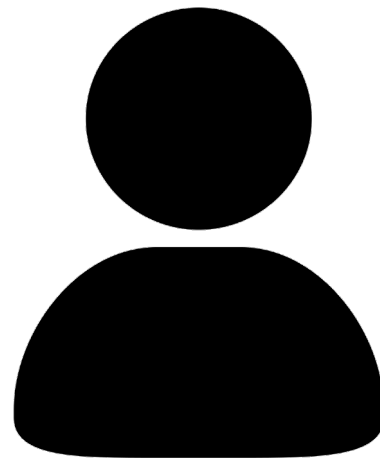
```
newTrial( "experiment",
  newController("DashedSentence", {s : "Pavel, Eva believes in the least in the world."})
  | .print()
  | .log()
  | .wait()
  | .remove()
  ,
  | newButton("Done")
  | .print()
  | .wait()
  ,
)
```

methodology - self-paced reading

Ivan, _____
_____ Fiona _____
_____ understands _____
_____ _____ him _____
_____ _____ _____ the _____
_____ _____ _____ _____ most _____
_____ _____ _____ _____ _____ out _____
_____ _____ _____ _____ _____ _____ of _____

methodology - piloting

- 22 participants
- age between 19 - 36
- non native english speakers
- all linguists



results

Anova: Single Factor

SUMMARY

<i>Groups</i>	<i>Count</i>	<i>Sum</i>	<i>Average</i>	<i>Variance</i>
with	104	67687	650.8365	173239.8
without	104	75293	723.9712	1181167

ANOVA

<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
Between Groups	278130.9423	1	278130.9	0.410705	0.522324	3.886996
Within Groups	139503925.1	206	677203.5			
Total	139782056.1	207				

conclusions

- pilot project → results not intended to be interpreted
- the experiment can be applied to test the research question in other languages

references

- Szűcs, Péter. "On English topicalization and left-dislocation from an information-structural perspective." *Journal of Linguistics* 49 (2014): 413-454.
- Miyagawa, Shigeru. "Topicalization." *Gengo kenkyu (Journal of the linguistic society of Japan)* 152 (2017): 1-29.

QUESTIONS?
SUGGESTIONS?
COMMENTS?

