ARE SOME SYNTACTIC ISLANDS ACTUALLY PENINSULAS?

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AARHUS UNIVERSITY

MINDS - MIND THE STRUCTURE
22 NOVEMBER 2022

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THE PHENOMENON

In the literature a group of constructions have standardly been assumed to be so-called syntactic islands, meaning that movement out of them is banned

*   [Who]$_i$ did Mary cry [after John hit _$_i$]?

(Huang 1982, 503)

?   [Hvem]$_i$ græd Marie [efter at Jens slog_$_i$]?

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THE PHENOMENON

Short movement
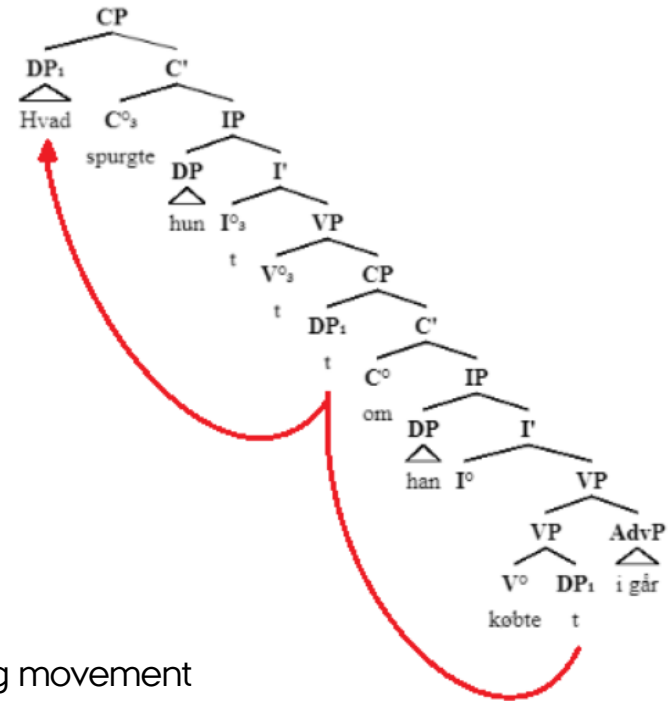
Long movement

THE PHENOMENON

-   'Wh-movement is thus stepwise movement into the next higher CP-spec. In other words, "long" wh-movement is really a series of smaller local movements; first into the lowest (=the local) CP-spec, then into the next closest CP-spec, and so on (Vikner 2022, 9).

-   The notion of cycles (Chomsky and Halle 1968) '... complex structural domains ... have nested internal structure, and that certain rules apply first to the most deeply embedded constituent, then to the next most deeply embedded, and so on' (Boeckx 2012, 11).

-   Called the 'subjacency condition' (Chomsky 1973)

(Vikner 2022, 8)
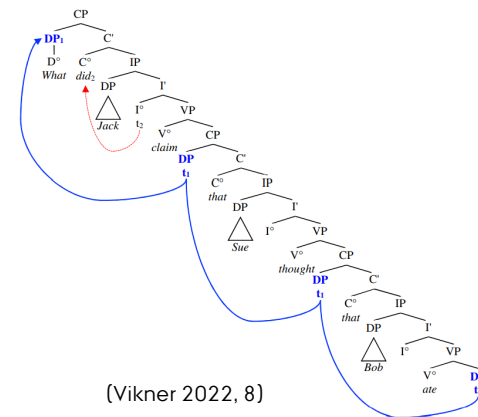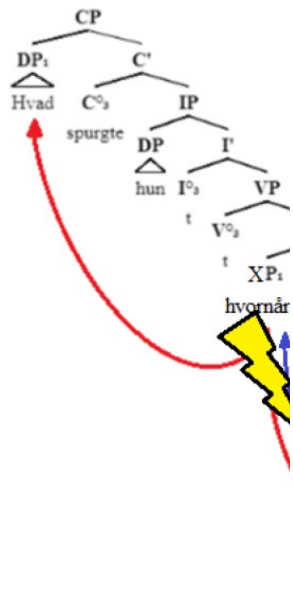
THE PHENOMENON

So what's going on?
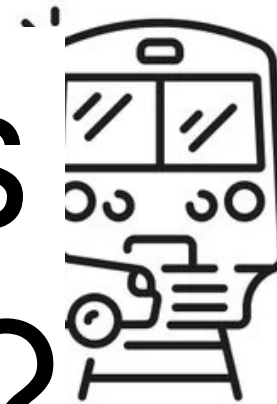
THE PHENOMENON

- '[L]ong wh-movement turns out to be blocked if any CP-spec between the base position and the (final) landing site is filled (leaving no room for a trace of the wh-movement) ...

- Because of this blocking effect, embedded questions are often referred to as wh-islands. The idea is that it is impossible (or very close to impossible) to "leave" an embedded question, just like it may be difficult or impossible to get off an island (if you are Robinson Crusoe)' (Vikner 2022, 9).

- Or, in other words, subjacency condition is violated (Chomsky 1973)

THE PROBLEM

—

- Is it possible to escape the island?

- How is it possible to escape the island?

- Who/what can escape the island?

https://www.google.com/search?q=robinson+crusoe&tbm=isch&hl=da&sa=X&ved=2ahUKEwj14LH9oL_7AhU3nv0HHbW5D40Q3VYoAHoECAEQJQ&biw=1263&bih=577#imgrc=Wm6MzfBObvxJEM

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THE PROBLEM

—

- Violation of the structure *should* be systematically banned under UG due to impossibility of moving out of Adj clause

- It is, however, acceptable in the MSc languages

- Only grammatical sentences have structural mental representations (tree structures) – ungrammatical ones cannot be interpreted by our mental grammars (Sprouse 2007, 123 f).

- (*Stormvejr hader jeg sne og)

'The psychological claim underlying theories of categorical grammaticality is that ungrammatical sentences have no licit representation, or in other words, cannot be constructed from the available mental computations. Grammatical sentences, on the other hand, have licit representations that can be constructed from the available mental computations' (Sprouse 2007, 123 f)

ACCEPTABILITY (CORPUS)

Pros and Cons

- Natural language

- Production vs judgement

- Limited

  - Curated

    (maybe not all that natural?)

  - Small sample

    (just because the structure doesn't exist in the corpus, it doesn't mean it doesn't exist at all)

Different kind of data: No. of occurences and their contexts

ACCEPTABILITY (CORPUS)

Table 1. Distribution of the Danish adjunct clause extractions.

	hvis 'If'	når 'When'	fordi 'Because'	Total
wh-extraction	0	0	0	0
topicalization	13	3	0	16
relativization	18	3	0	21
total	31	6	0	37

(Müller and Eggers 2022, 10)

Table 2. Distribution of the English adjunct clause extractions.

	If	When	Because	Total
wh-extraction	0	0	0	0
relativization	42	7	0	49
total	42	7	0	49

(Müller and Eggers 2022, 11)

	Embedded Clause Type		
	Simple Declarative (see Table 3)	Relative Clause	Embedded Q
Age Group 3–5			
Relativization	2	0 E[2]	0 E[0]
Topicalization	1	2 E[1]	0 E[0]
Wh-Movement	2	0 E[2]	0 E[0]
No Dependency	286	302	57
Age Group 6–8			
Relativization	9	0 E[9]	2 E[2]
Topicalization	16	10 E[16]	2 E[3]
Wh-Movement	9	0 E[9]	0 E[2]
No Dependency	4509	4511	950
Age Group 9–11			
Relativization	79	0 E[79]	19 E[16]
Topicalization	79	42 E[79]	10 E[18]
Wh-Movement	43	0 E[73]	0 E[17]
No Dependency	19178	19983	4385
Age Group 12–18			
Relativization	59	0 E[59]	7 E[16]
Topicalization	33	9 E[33]	2 E[8]
Wh-Movement	49	0 E[49]	0 E[13]
No Dependency	11055	11199	2931

Table 4: Counts of long-distance movement dependencies split by age group, dependency and embedded clause-type. Expected counts (E[…]) reflect the number of tokens that would be expected under the assumption that filler-gap dependencies into Relative Clauses and Embedded Questions are equally as frequent as corresponding filler-gap dependencies into simple declarative complement clauses.

(Kush, Sant, and Strœtkvern 2021, 19)

ACCEPTABILITY (BEHAVIOURAL)

Pros and Cons

- Easier to elicit

- Tracking reaction times can allude to computation time

- Judgement vs actual production/real world applicability

- Sentences risk not being natural (enough)

- Lack of pragmatic or semantic logic can elicit unacceptable responses even though the sentence is grammatically acceptable.
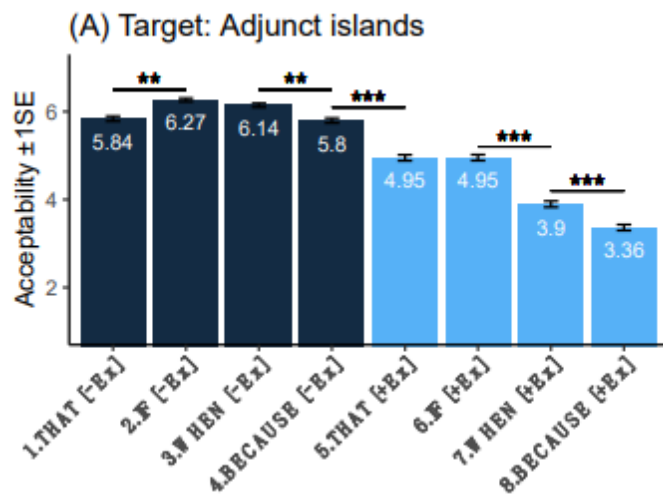
    E.g.: Giraf drikker jeg kun, hvis jeg er rigtig rar.

    Vs: Tequila drikker jeg kun, hvis jeg er rigtig fuld

Different kind of data: ratings of different sentences

ACCEPTABILITY (BEHAVIOURAL)

(A) Target: Adjunct islands

(Nyvad, Müller, and Christensen 2022, 9)

Figure 2. Mean (raw) acceptability ratings by type (see Figure 2) for each of the 24 target sets.

(Nyvad, Müller, and Christensen 2022, 10)

'We conducted an acceptability judgment study on relativization from three types of finite adjunct clauses in English (if-, when-, and because-clauses) in the presence of supporting context. We found that the three clause types showed rather non-uniform acceptability patterns' (Nyvad, Müller, and Christensen 2022, 1)
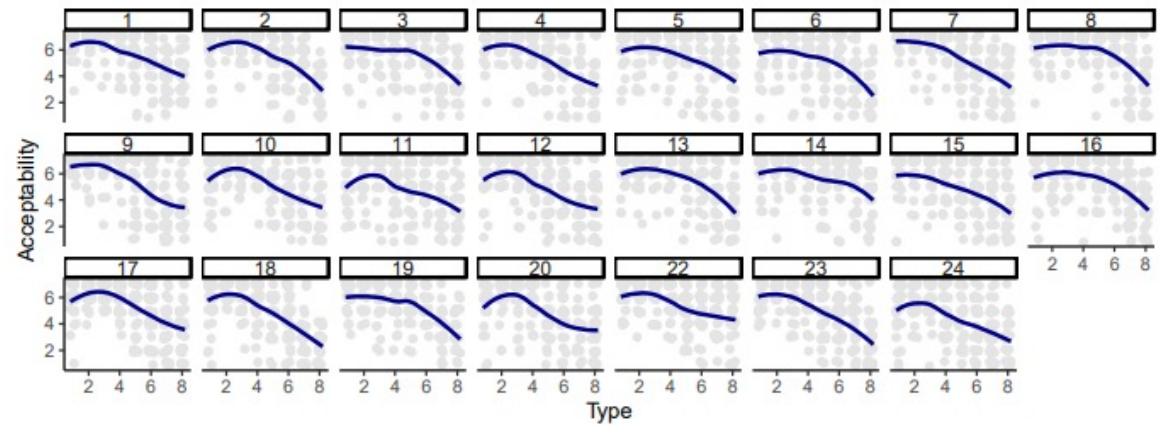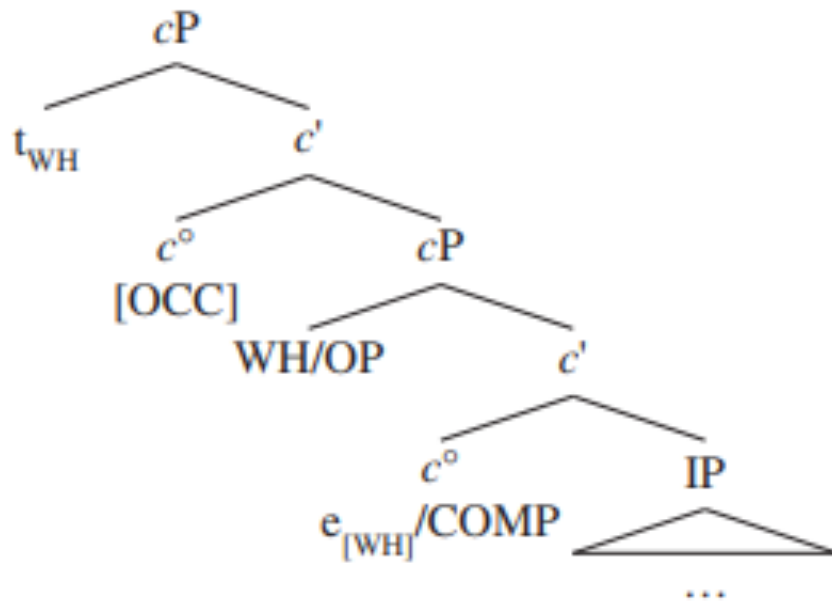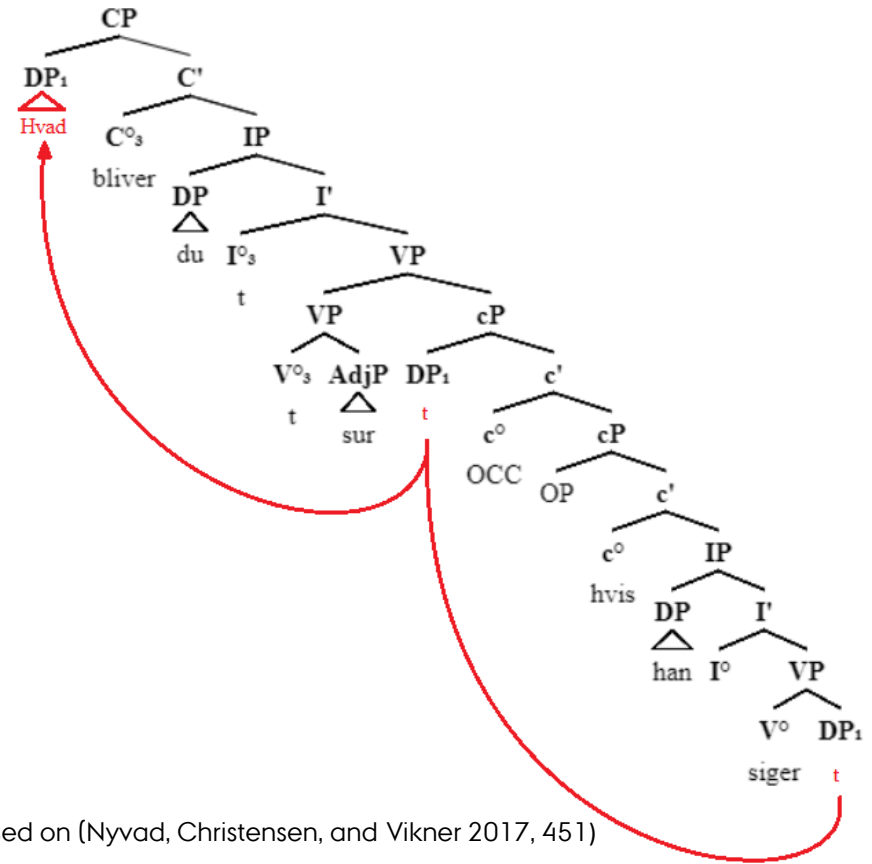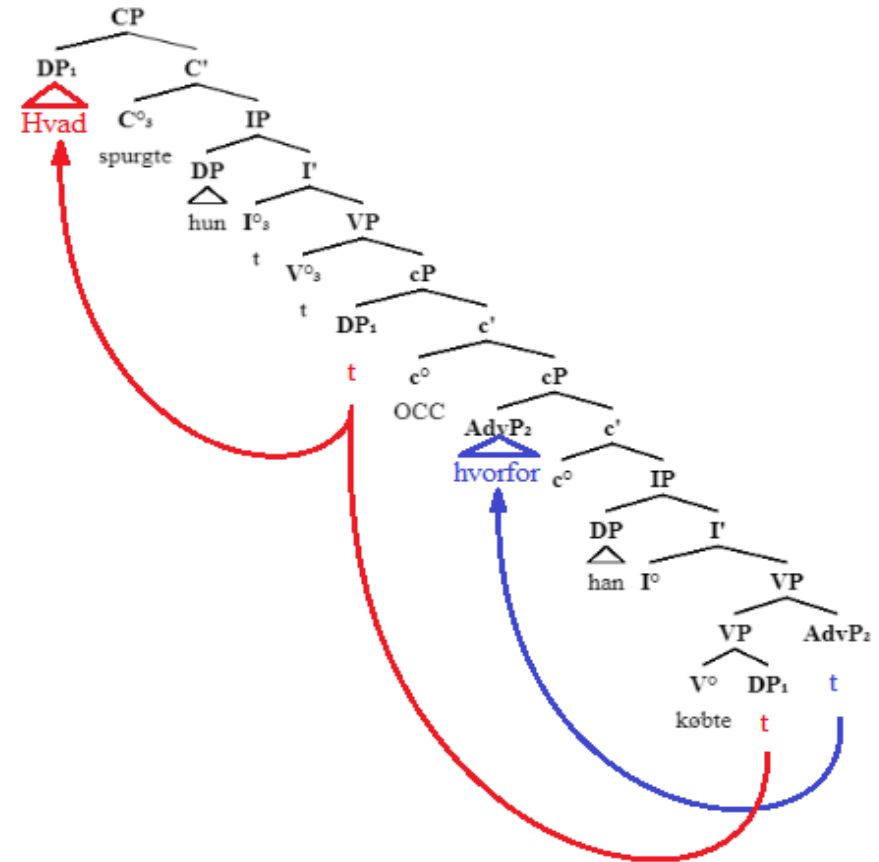
TREE STRUCTURE

(Nyvad, Christensen, and Vikner 2017, 451)

Based on (Nyvad, Christensen, and Vikner 2017, 451)
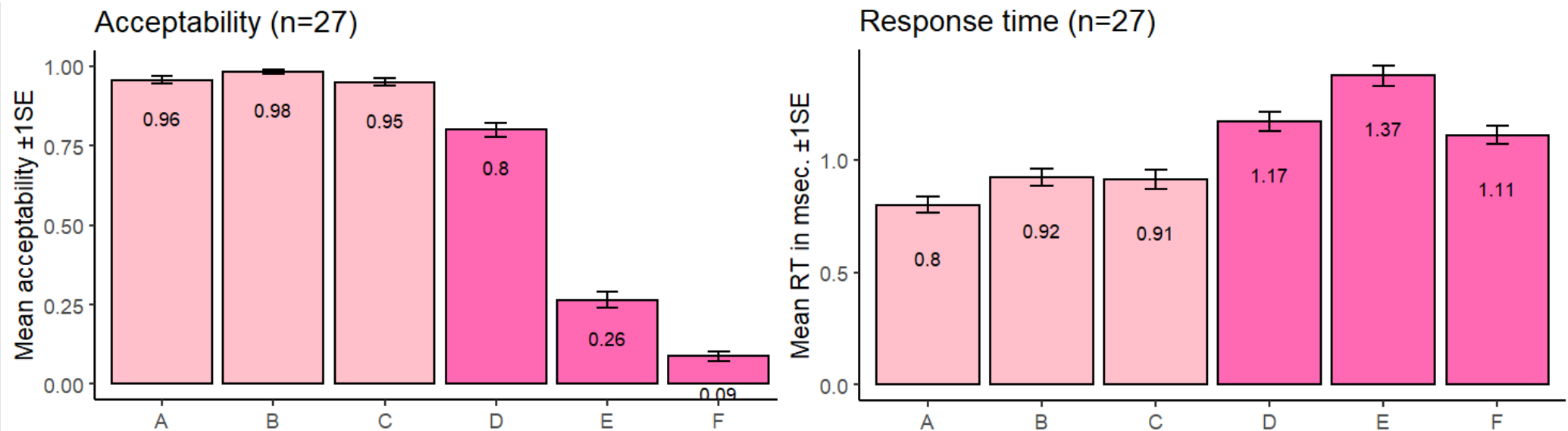
TREE STRUCTURE

Based on (Nyvad, Christensen, and Vikner 2017, 451)

MY EXPERIMENT – THE SETUP

- 27 participants, 21 native speakers of Danish, 6 billingual particpants, 59% women 41% men, 63% students of English, 30% Linguists*, 74% in the age bracket 20-30 yrs.

- 88 sentences with 'at' that, 'hvis' if, and 'fordi' because' with and without extraction plus FILLERS.

- Tasked with a speeded acceptability test on a binary scale.

- With and without extraction from that-, if-, and because-clause.

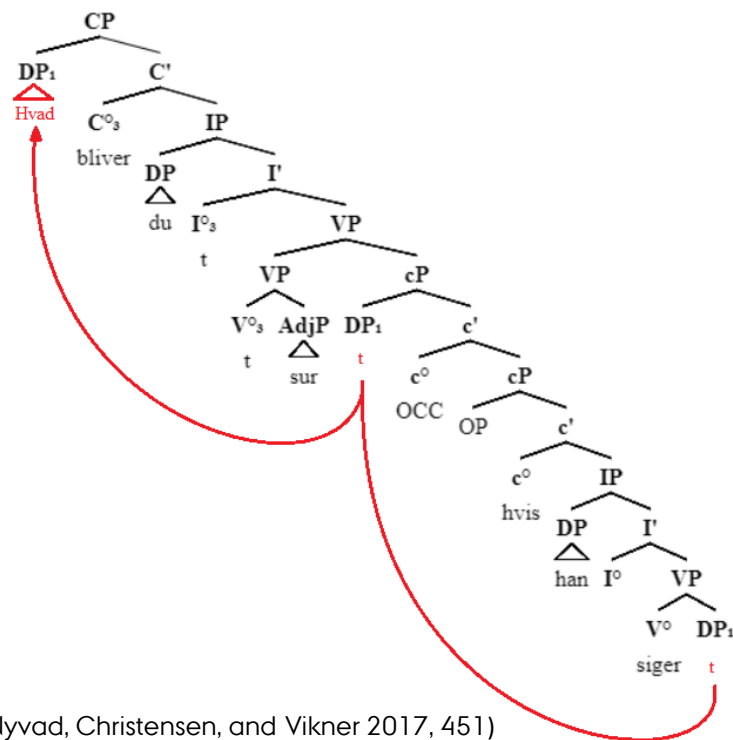- Unlike acceptability, grammaticality should be categorical (Sprouse 2007, 123 f)

MY EXPERIMENT – THE DATA

Acceptability (n=27)

Mean acceptability ±1SE

A 0.96
B 0.98
C 0.95
D 0.8
E 0.26
F 0.09

Response time (n=27)

Mean RT in msec. ±1SE

A 0.8
B 0.92
C 0.91
D 1.17
E 1.37
F 1.11

WHY IS IT SO RELATIVELY OK?

Based on (Nyvad, Christensen, and Vikner 2017, 451)

Semantic explanation of degraded acceptability:

Dependent on filler- gap dependency type, matrix verb (semantic coherence + opacity), arg-/adj asymmetry Christensen, Kizach, and Nyvad 2013), (Nyvad, Müller, and Christensen 2022)

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REFERENCES

Boeckx, Cedric. 2012. *Syntactic Islands*. Key Topics in Syntax. Cambridge: Cambridge University Press. https://doi.org/10.1017/CBO9781139022415.

Chomsky, Noam. 1973. 'Conditions on Transformations'. In *A Festchrift for Morris Halle*, edited by S. Anderson and P. Kiparsky, 232–86. New York: Holt, Rinehart, and Winston.

Chomsky, Noam, and Morris Halle. 1968. *The Sound Pattern of English*. Cambridge: Mass.: MIT Press.

Christensen, Ken, Johannes Kizach, and Anne Nyvad. 2013. 'Escape from the Island: Grammaticality and (Reduced) Acceptability of Wh-Island Violations in Danish'. *Journal of Psycholinguistic Research* 42 (1): 51–70. https://doi.org/10.1007/s10936-012-9210-x.

Christensen, Ken Ramshøj, Johannes Kizach, and Anne Mette Nyvad. 2013. 'The Processing of Syntactic Islands – An FMRI Study'. *Journal of Neurolinguistics* 26 (2): 239–51. https://doi.org/10.1016/j.jneuroling.2012.08.002.

Huang, Cheng-Teh James. 1982. 'Logical Relations in Chinese and the Theory of Grammar'. Thesis, Massachusetts Institute of Technology. https://dspace.mit.edu/handle/1721.1/15215.

Kush, Dave, Charlotte Sant, and Sunniva Briså Strœtkvern. 2021. 'Learning Island-Insensitivity from the Input: A Corpus Analysis of Child- and Youth-Directed Text in Norwegian'. *Glossa: A Journal of General Linguistics* 6 (1). https://doi.org/10.16995/glossa.5774.

Müller, Christiane, and Clara Ulrich Eggers. 2022. 'Island Extractions in the Wild: A Corpus Study of Adjunct and Relative Clause Islands in Danish and English'. *Languages* 7 (2): 125. https://doi.org/10.3390/languages7020125.

Nyvad, Anne Mette, Ken Ramshøj Christensen, and Sten Vikner. 2017. 'CP-Recursion in Danish: A CP/CP-Analysis'. *The Linguistic Review* 34 (3): 449–77. https://doi.org/10.1515/tlr-2017-0008.

Nyvad, Anne Mette, Christiane Müller, and Ken Ramshøj Christensen. 2022. 'Too True to Be Good? The Non-Uniformity of Extraction from Adjunct Clauses in English'. *Languages* 7 (4): 244. https://doi.org/10.3390/languages7040244.

Sprouse, Jon. 2007. 'Continuous Acceptability, Categorical Grammaticality, and Experimental Syntax'. *Biolinguistics* 1 (December): 123–34. https://doi.org/10.5964/bioling.8597.

Vikner, Sten. 2022. 'Advanced Syntax: 8. Questions'. Course Handout, Department of English, Aarhus University, March 23.

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BONUS

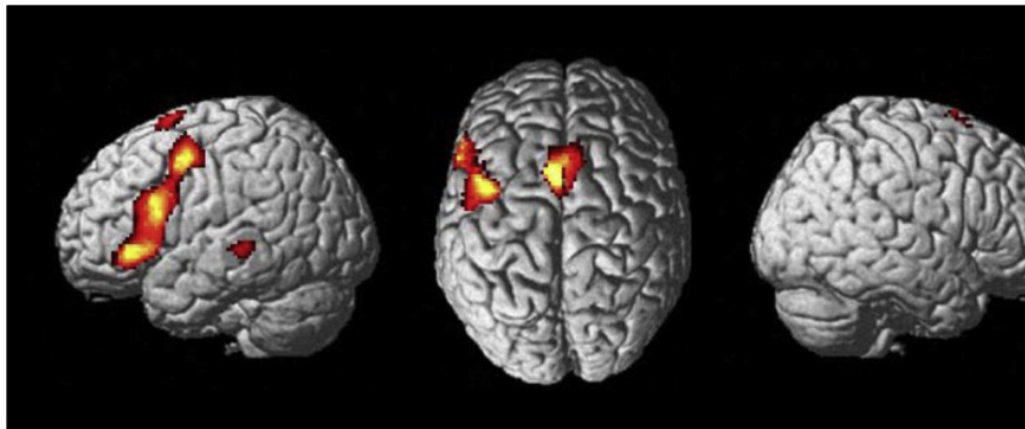(Christensen, Kizach, and Nyvad 2013, 244, 246)

Fig. 3. Surface rendering of the MOVE-OUT effect ($p < 0.05$ FWE).

the general populus/rest of world/possible rest of collectible data world and not just down to outliers in your data(?)

Fig. 2. Bar plot of acceptability (mean across subjects and tokens) by condition. Error bars: ±SE. Asterisks (*) indicate significant differences ($p < 0.05$). Sequentially Bonferroni-corrected for multiple comparisons (Holm, 1979), *$p < 0.05$, **$p < 0.001$.

Christensen, Ken Ramshøj, Johannes Kizach, and Anne Mette Nyvad. 2013. 'The Processing of Syntactic Islands – An FMRI Study'. *Journal of Neurolinguistics* 26 (2): 239–51.
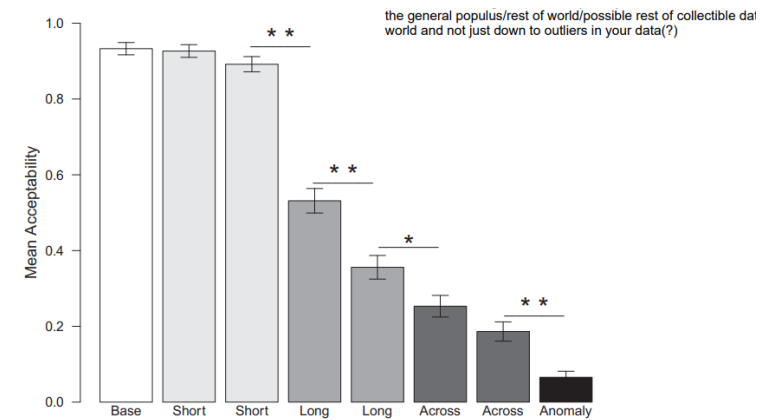
BONUS

- CED – Condition on Extraction Domain (Huang 1982)
    - Strong islands are not properly governed – that's what makes them strong, i.e. supposedly inescapable under all circumstances
    - Only extraction from complements is possible, not subject or adjunct