

French d'illusions: a grammaticality illusion created by quantification at a distance

Jérémy Pasquereau & Brian Dillon

Department of Linguistics, University of Massachusetts - Amherst

WHY DO WE SEE GRAMMATICAL ILLUSIONS?

- Comprehenders sometimes process ungrammatical sentences as if they were acceptable [1][2]
- (1) *_[DP] A man [who had **no** beard] was **ever** thrifty.
- This may reflect a memory access error that can access features of the licenser **no** even in a structurally illicit position [2][3][4]

THE CURRENT STUDY

- Presents evidence for a novel illusion of grammaticality in French: de-NP illusions
- Not all quantifiers (Q) that license de-NPs create de-NP illusions
- Only Q's that can be independently separated from their restrictors (Quantification at a Distance; QAD) create de-NP illusions
- Simple feature matching in memory is not sufficient for a Q to intrusively license de-NPs

Hypothesis:
Quantifiers are only accessible enough to create de-NP illusions when they independently allow long-distance quantification (QAD)

BACKGROUND

FRENCH DP'S

- (2) J'ai donné ... le livre `the book'
 'I gave' un livre `a book'
 des livres `some books'
 *livres `books'
 *de livres `de books'

QUANTIFICATION AT A DISTANCE IS ALLOWED

- (4) J'ai **beaucoup** donné **de** livres.
 C-COMMAND IS REQUIRED
- (5) *L' homme [qui a **beaucoup** donné] a **de** livres.
 the man who has much given has DE books
 DOUBLE QUANTIFICATION IS NOT ALLOWED
- (6) ***Beaucoup** de gens ont donné **de** livres.
 many DE people have given DE books

DE-NP'S ARE LICENSED BY CERTAIN Q

- (3) J'ai donné ... beaucoup de livres `many books'
 'I gave' pas mal de livres `quite a few books'
 suffisamment de livres `enough books'

IS DE-NP LICENSING FALLIBLE?

GRAM is grammatical:

- de gens `DE people' is licensed by the quantifier *beaucoup* `many'
- des livres `books' is an indefinite which does not need licensing

UNGRAM is ungrammatical:

- des gens `people' is an indefinite which does not need licensing
- de livres `DE books' is not licensed

INT is ungrammatical too:

- de gens `DE people' is licensed by the quantifier *beaucoup* `many'
- de livres `DE books' is not licensed
- however we have the intuitions that this sentence is perceived as more acceptable than ungrammatical

CONCLUSION

RESULTS

- Presence of linearly preceding quantifier improves acceptability of an otherwise unlicensed de-NP
- However, this effect is only seen with QAD quantifiers (*beaucoup*); linearly preceding -QAD quantifiers (*plein*) do not improve acceptability of unlicensed de-NP
- de-NP illusion is observed both online and offline measures

DISCUSSION

- Results are compatible with current models of intrusive licensing [2][4]
- However, results show a linearly preceding licenser is not sufficient to create de-NP illusions
- de-NP illusions differ from NPI illusions: quantifiers are doing 'double duty', licensing two restrictors

CONCLUSION

- de-NP illusions are conditioned by an independent grammatical factor: quantification at a distance

CONDITIONS

	+QAD	-QAD
GRAM	J'ai donné [à beaucoup de gens] [des livres] pour Noël.	J'ai donné [à plein de gens] [des livres] pour Noël.
UNGRAM	J'ai donné [à des gens] [de livres] pour Noël.	J'ai donné [à des gens] [de livres] pour Noël.
INT	J'ai donné [à beaucoup de gens] [de livres] pour Noël.	J'ai donné [à plein de gens] [de livres] pour Noël.

EXPERIMENTS

METHODS

- RSVP + speeded response
 - 6 different quantifiers were used (all +QAD)
 - All sentences used verbs with an object and a goal PP
- SUBJECT V [à GOAL]_{PP} [OBJECT]_{DP}
 [à QUANTIFIER de-NP] [de la NP]
 [à de-NP] [de NP]
 [à QUANTIFIER de-NP] [de NP]

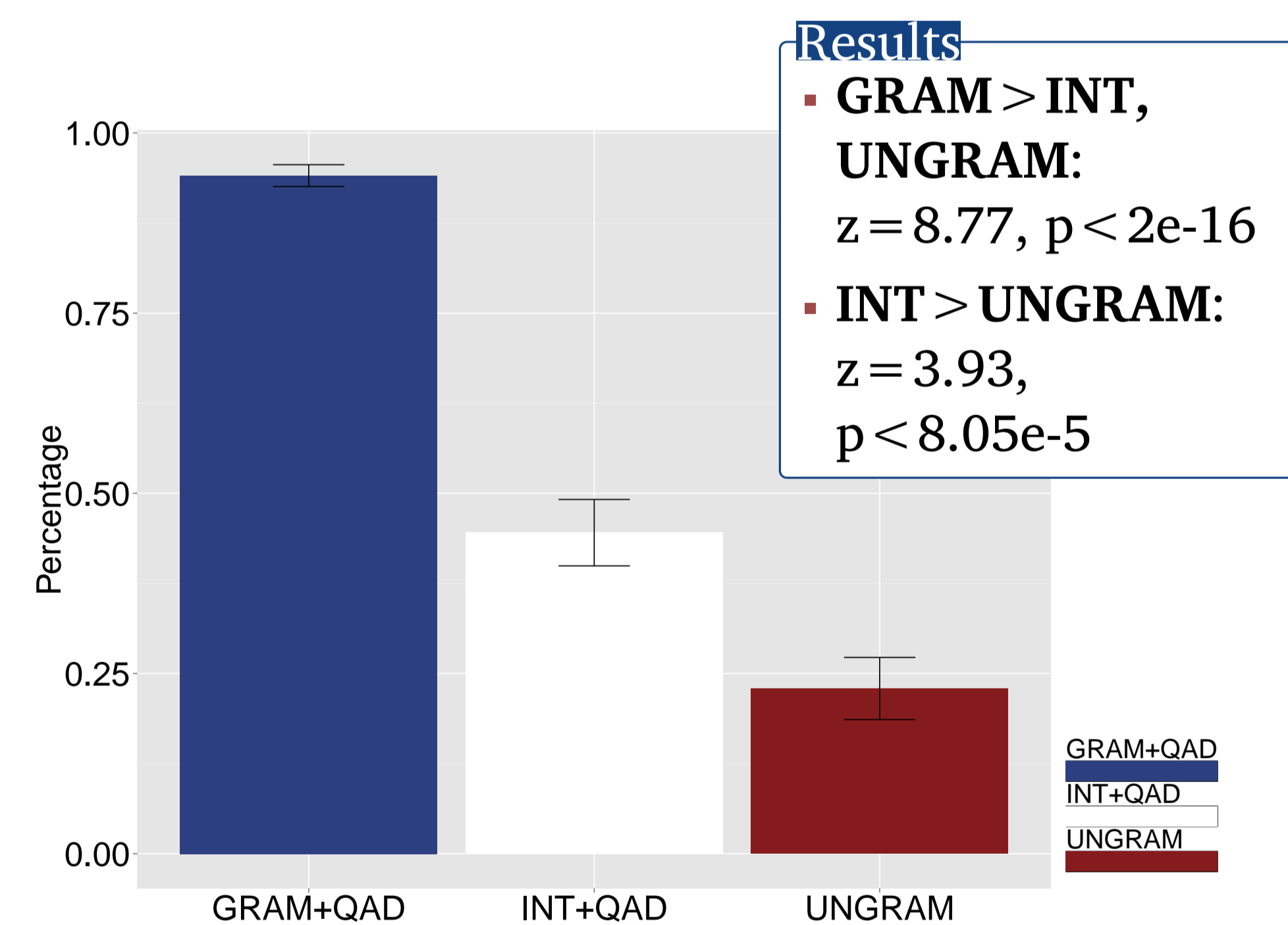
Hypothesis: The presence of a quantifier in the string improves the acceptability of an ungrammatical sentence with 2 de-NP's

- Predictions: GRAMMATICALITY: GRAM > INT, UNGRAM INTRUSION: INT > UNGRAM

EXP's 2 & 3: REPLICATE & EXTEND

- 2 conditions were added: GRAM-QAD & INT-QAD
- Predictions of hyp. 2: GRAMMATICALITY: GRAM > INT, UNGRAM INTRUSION*QAD: INT+QAD > INT-QAD
- Experiment 2
 - N = 50 via RISC (CNRS)
 - 30 item sets
 - Methodology identical to Exp. 1
- Experiment 3
 - N = 51 via RISC (CNRS)
 - 30 item sets
 - Methodology: not timed, Likert scale

EXPERIMENT 1



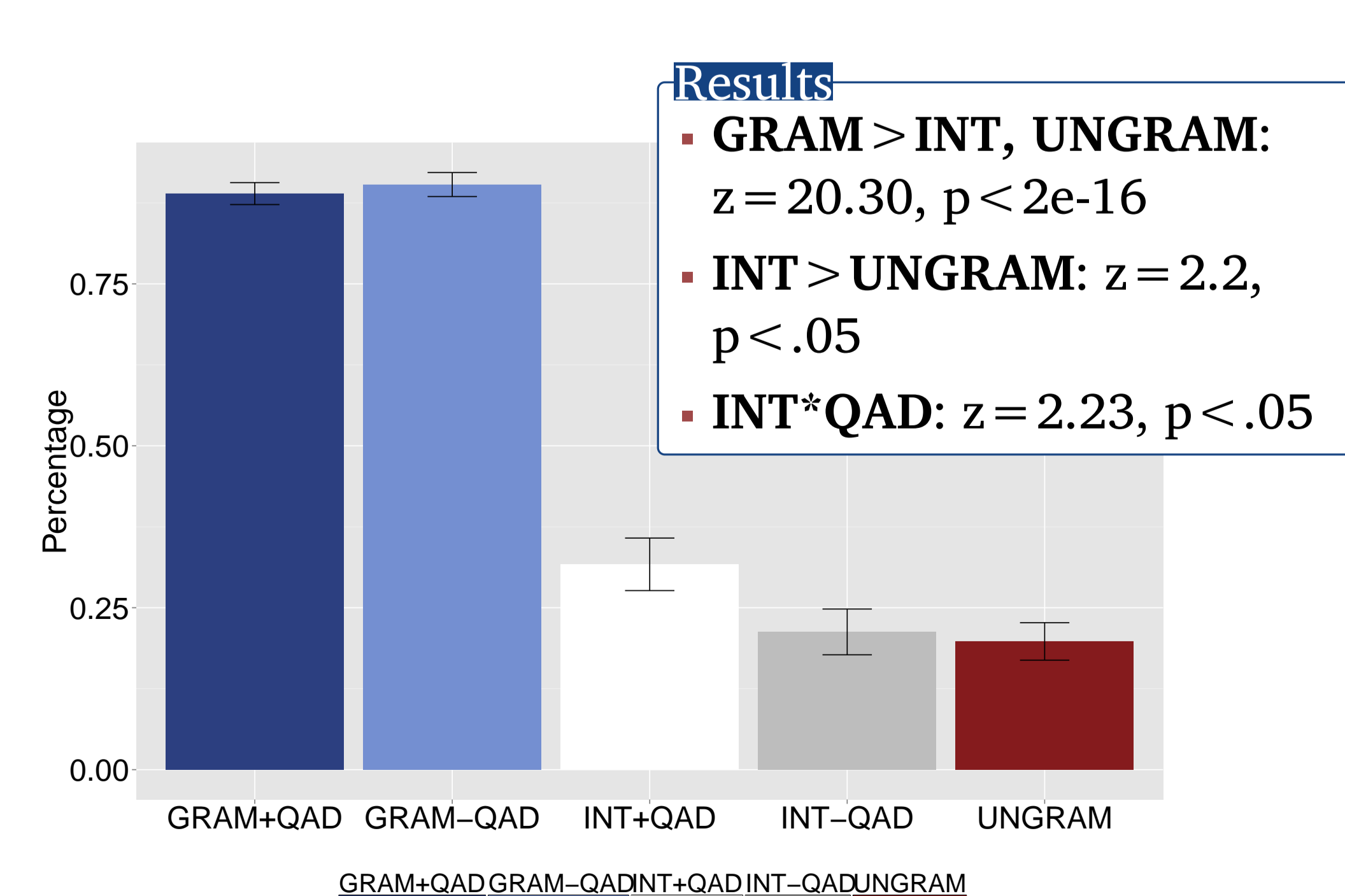
SOME QUANTIFIERS FLOAT, SOME DO NOT

- Exp. 1 used only Q_{+QAD}, is this important?
 - +QAD quantifiers float: *beaucoup* `much/many'
 - QAD quantifiers do not: *plein* `much/many'
- J'ai donné **beaucoup** de livres. J'ai donné **plein** de livres.
 J'ai **beaucoup** donné de livres. *J'ai **plein** donné de livres.

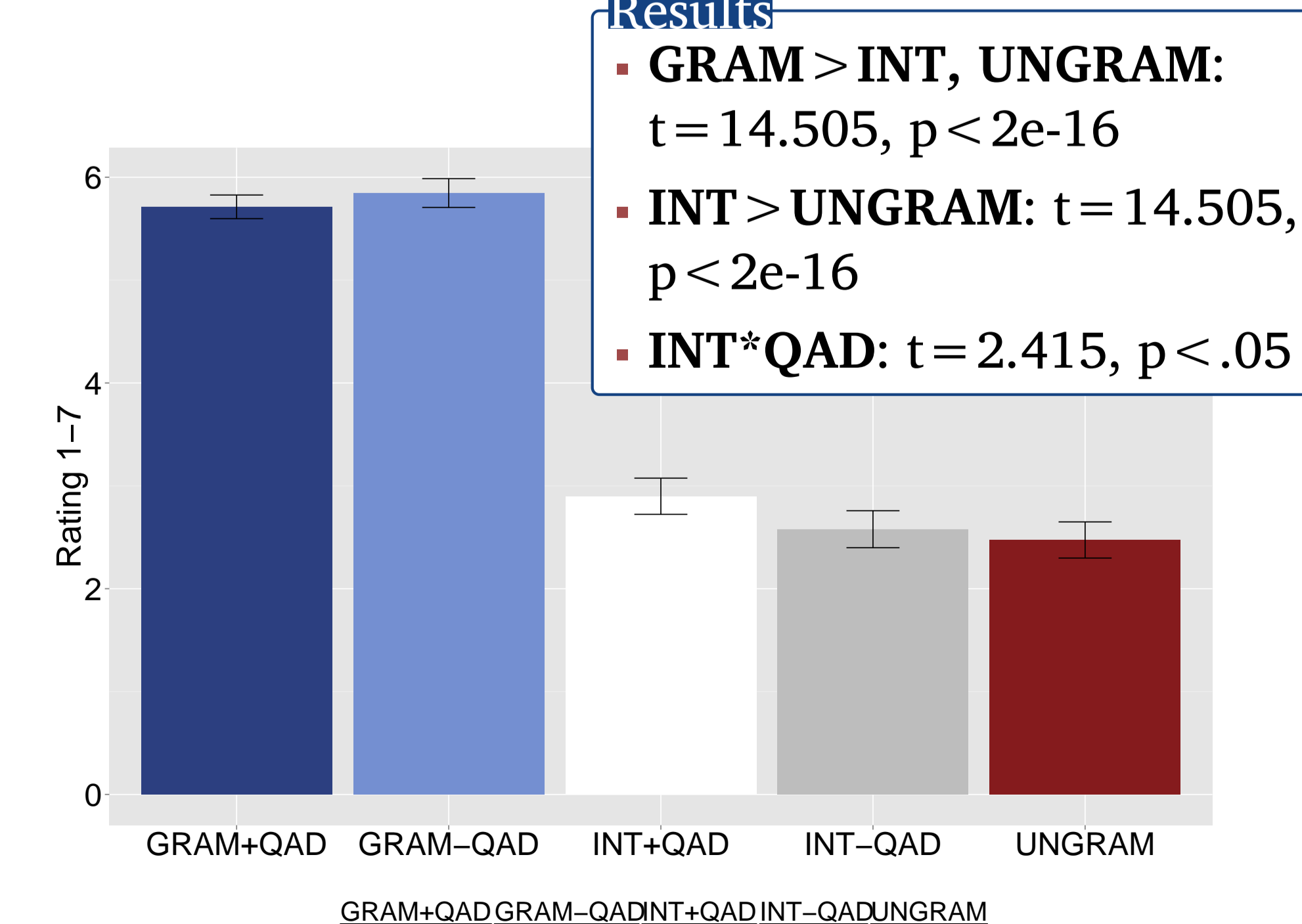
Hypotheses:

- Noisy memory search for a licensing quantifier (hyp. 1)?
 *J'ai donné [à **beaucoup** / **plein** de gens] [de livres] pour Noël.
- Or conditioned by a grammatical alternative (QAD) (hyp. 2)?
 *J'ai donné [à **beaucoup** / **plein** de gens] [de livres] pour Noël.
 cf. J'ai beaucoup donné à des gens de livres pour Noël.

EXPERIMENT 2



EXPERIMENT 3



OPEN QUESTIONS

WHY DOES QAD CREATE D'ILLUSIONS?

- Idea: QAD quantifiers covertly move to a more syntactically prominent position (close to c-commanding).
- Prediction: no difference between Q_{+QAD} and Q_{-QAD} in syntactically prominent positions

(7) ***Beaucoup**/Plein de gens ont donné de livres.

FORWARD OR BACKWARD SEARCH?

- Indefinite determiners are morphologically complex
- e.g. *des* `some': **de** + *les* `the'

(8) J'ai **beaucoup** envoyé [à des gens] [de livres].

- backward-search: **des** does not intervene
- forward-search: **des** intervenes, less acceptable

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