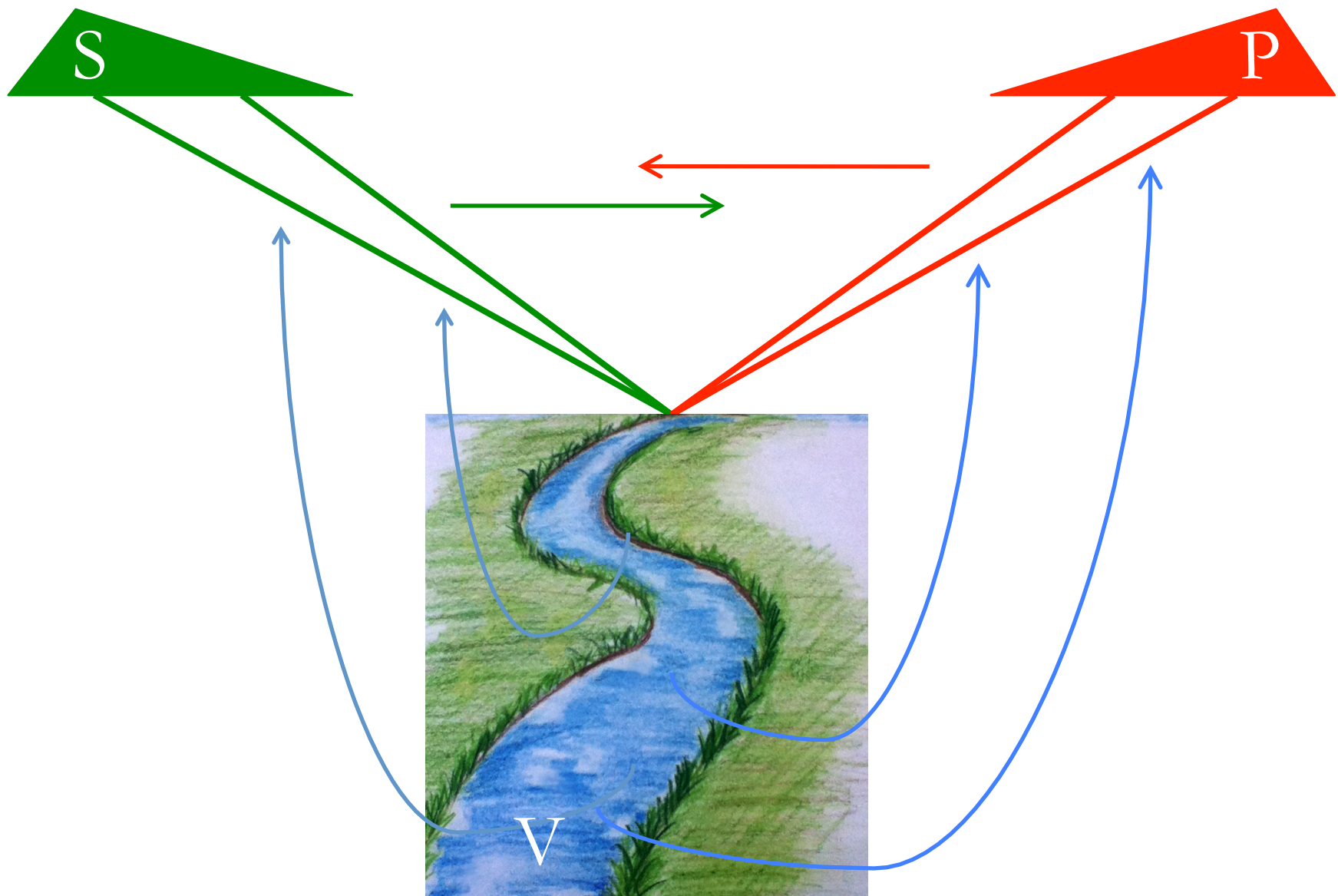


the relevance of syntactic structures for syntactic variation; or,

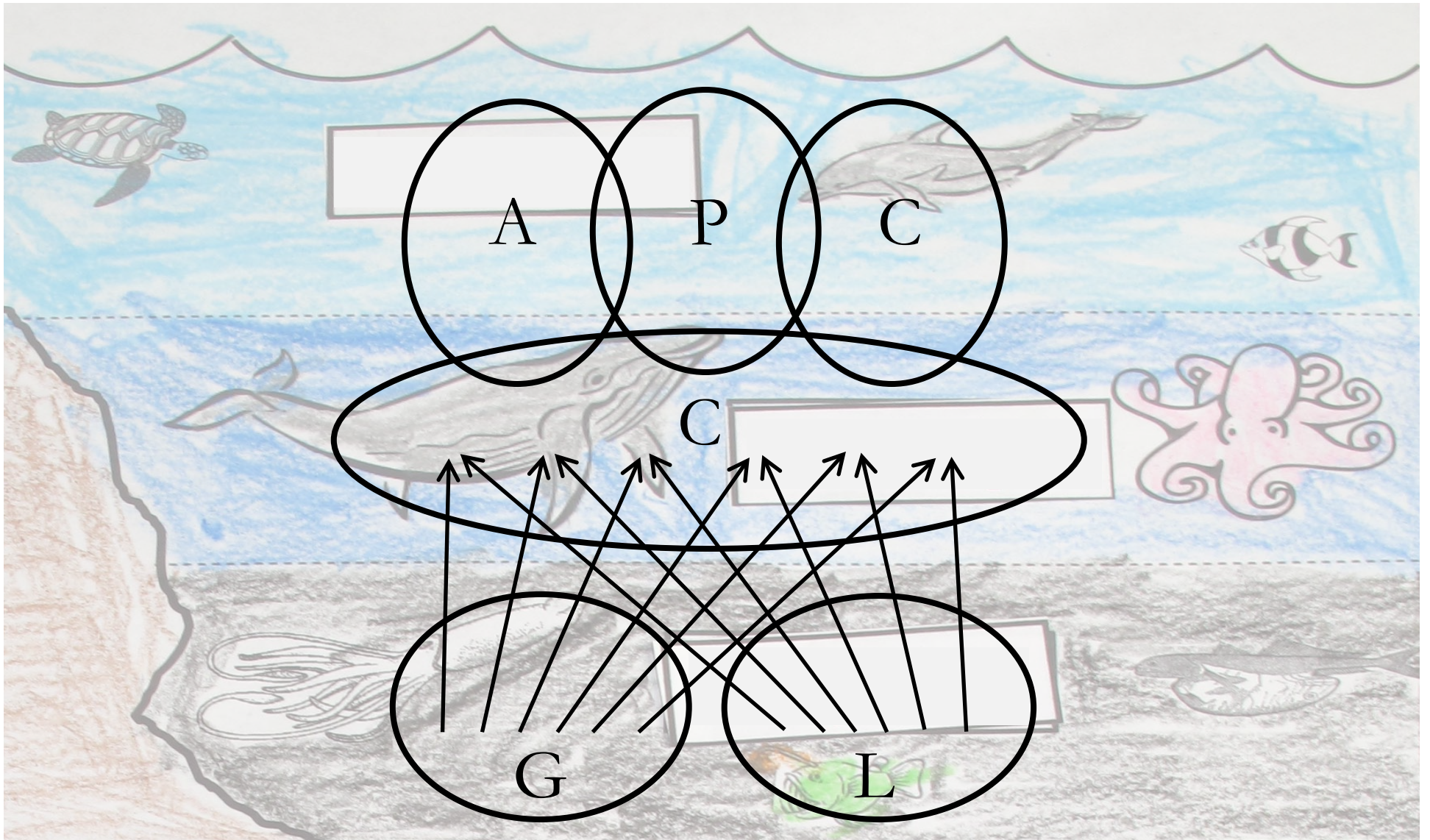
# the interaction of effects on the particle verb alternation

- Daniel Ezra Johnson
  - Lancaster University
  - d.e.johnson@lancaster.ac.uk
- Thanks to:
  - Bill Haddican
  - Kyle Gorman, Laurel MacKenzie, Joel Wallenberg

# a variationist's view of the world



# *vers une architecture*



# plumbing the depths

- economy principles
  - some variable alternations are like categorical ones so don't duplicate the machinery (Guy & Boberg 1997)
  - some variable alternations aren't like categorical ones these must be outside the grammar (MacKenzie 2012)
  - can we further justify these w/ appeal to learnability?
- theoretically and/or empirically-motivated architectural constraints
  - 'phonetics can't read'      – 'grammars can't count'
  - so if something is counting, it can't be the grammar
  - if effects interact, they must apply at the same stage

# the variable

- one of a few English ‘alternations’
- long history of study
- but what are ‘alternants’ theoretically?
- using VOP vs. VPO – agnostic labels
- no referential meaning difference
- little or no social meaning difference
- compare to ditransitive (‘dative alternation’)
- what is beyond the ‘envelope of variation’?
  - idioms (fixed and favoring) – VOPP constructions

# the syntax

## *Head raising of the particle*

[<sub>PredP</sub> P-p-Pred [<sub>pP</sub> OBJECT [<sub>p'</sub> P-p [<sub>PP</sub> P ]]]]

## *Old information object contexts*

cut [<sub>TopicP</sub> [<sub>DP</sub> the tree][<sub>TOPIC</sub>] [<sub>Topic'</sub> Topic [<sub>PredP</sub> [<sub>DP</sub> the tree] down]]]

## *Narrow object focus contexts*

cut [<sub>TopicP</sub> down][<sub>TOPIC</sub>] [<sub>Topic'</sub> Topic [<sub>PredP</sub> the tree down]]]

- does syntax just give options, or does variation arise there?
- if the latter, potential for duplication of machinery
- if the former, in the syntax you have  $X_{[+F]}$  or you don't
- but does the lexicon work the same way?



# the data

- two acceptability judgment experiments
- subjects judged sentences ‘bad’ (0) to ‘good’ (1)
- experiment 1: 297 subjects, US/Can./UK/Ire.
- object weight: ‘the (lumpy 10-pound) pumpkin’
- object oldness: via cataphoric pronoun  
Because she had no money... *vs.* Because it tasted funny...  
... Susan spit the conference dinner out.
- 32 stimuli, all compositional (Lohse et al. 2004)
- 32 fillers/normalizers – treated as fillers here
- able to look at VPO and VOP separately

# the data

- experiment 2: 125 subjects from USA
- object length is now fixed
- four topic/focus conditions via question prompt
  - Q1. What did the friends do? (VP focus)
  - Q2. What did the friends pass around? (object focus)
  - Q3. What happened? (wide focus)
  - Q4. What happened to the beer? (object topic)
  - A1-4. The friends passed the beer around.
- worked much better than the cataphoric pronoun
- won't discuss today, very similar analytical issues



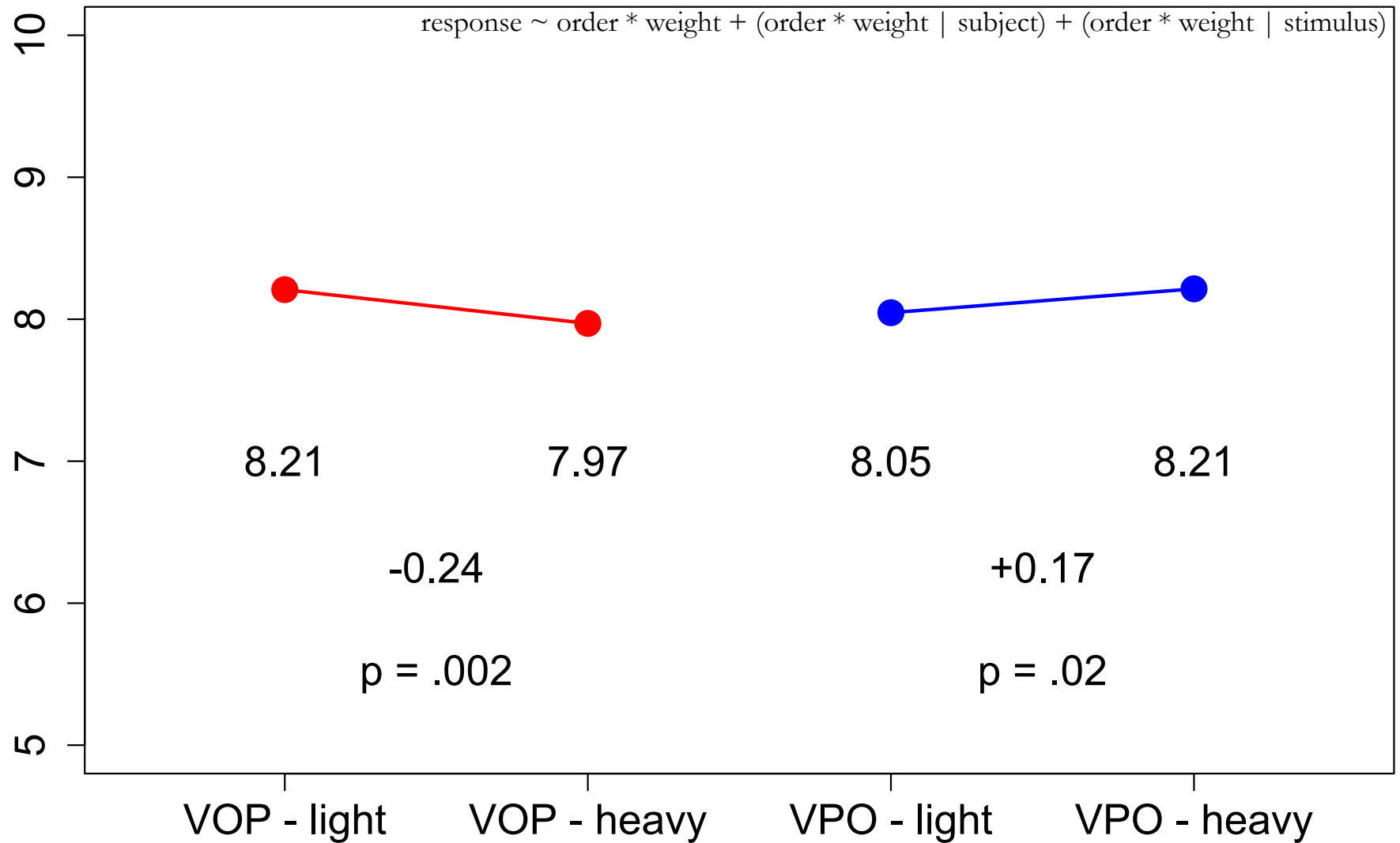
# the effects

- ‘social’: time, register/style, variety: US vs. UK
- ‘individual’: interacts with all the below
- prosodic: object weight
  - affected by processing constraints
  - never represented in syntax
- information-structural: old/new, topic/focus
  - affected by processing constraints
  - sometimes represented in syntax
- lexical: verb, particle, V-Prt pair: not today

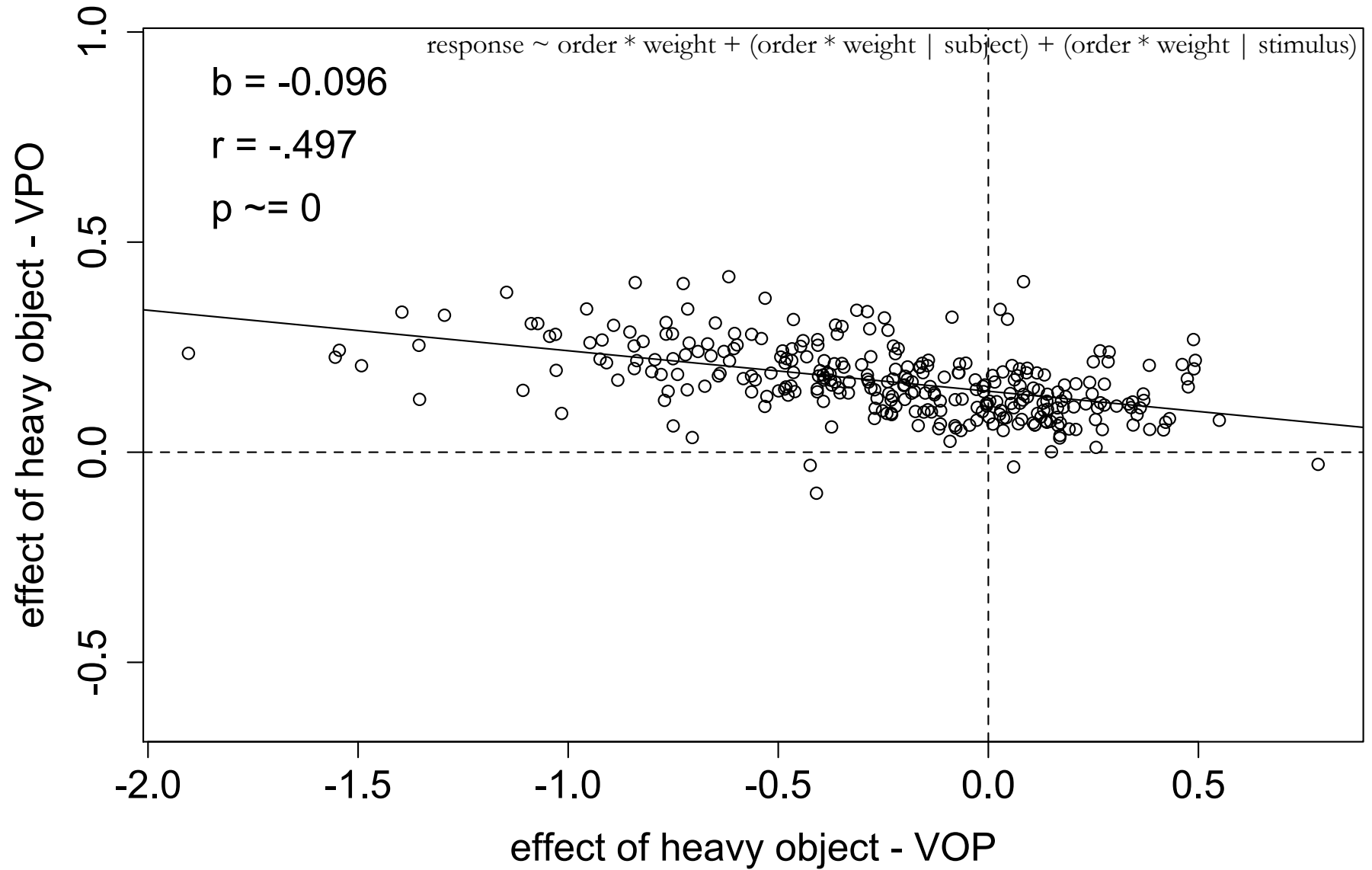
# the predictions

- ~100 years of research
  - corpora that must treat VOP/VPO as a choice
  - experiments that treat VOP/VPO as a choice
- a heavy object should...
  - make VOP order worse
  - have no effect on VPO order (make slightly worse?)
- a discourse-old (or topic) object should...
  - make VOP order better
  - make VPO order worse (probably both?)

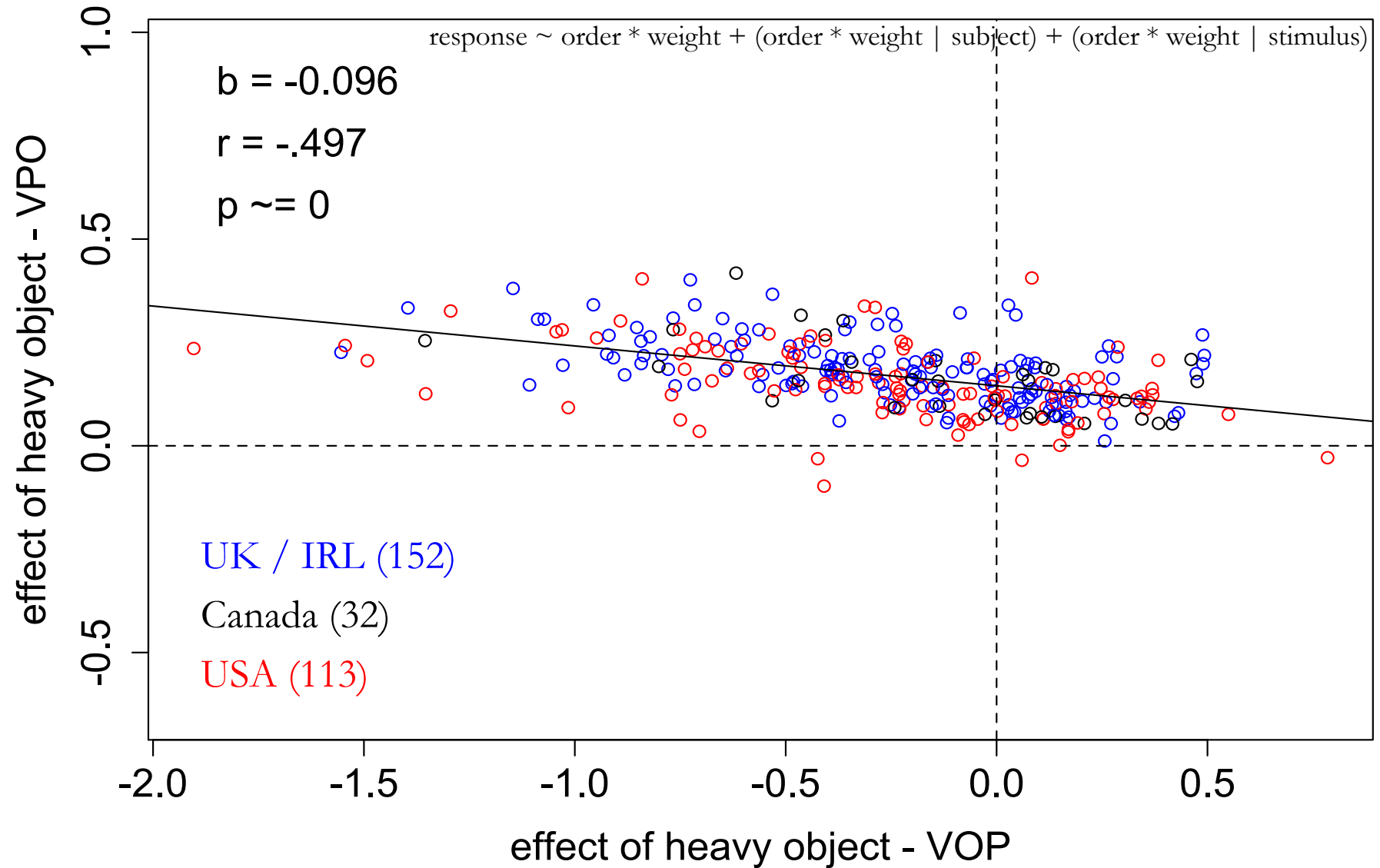
# object weight



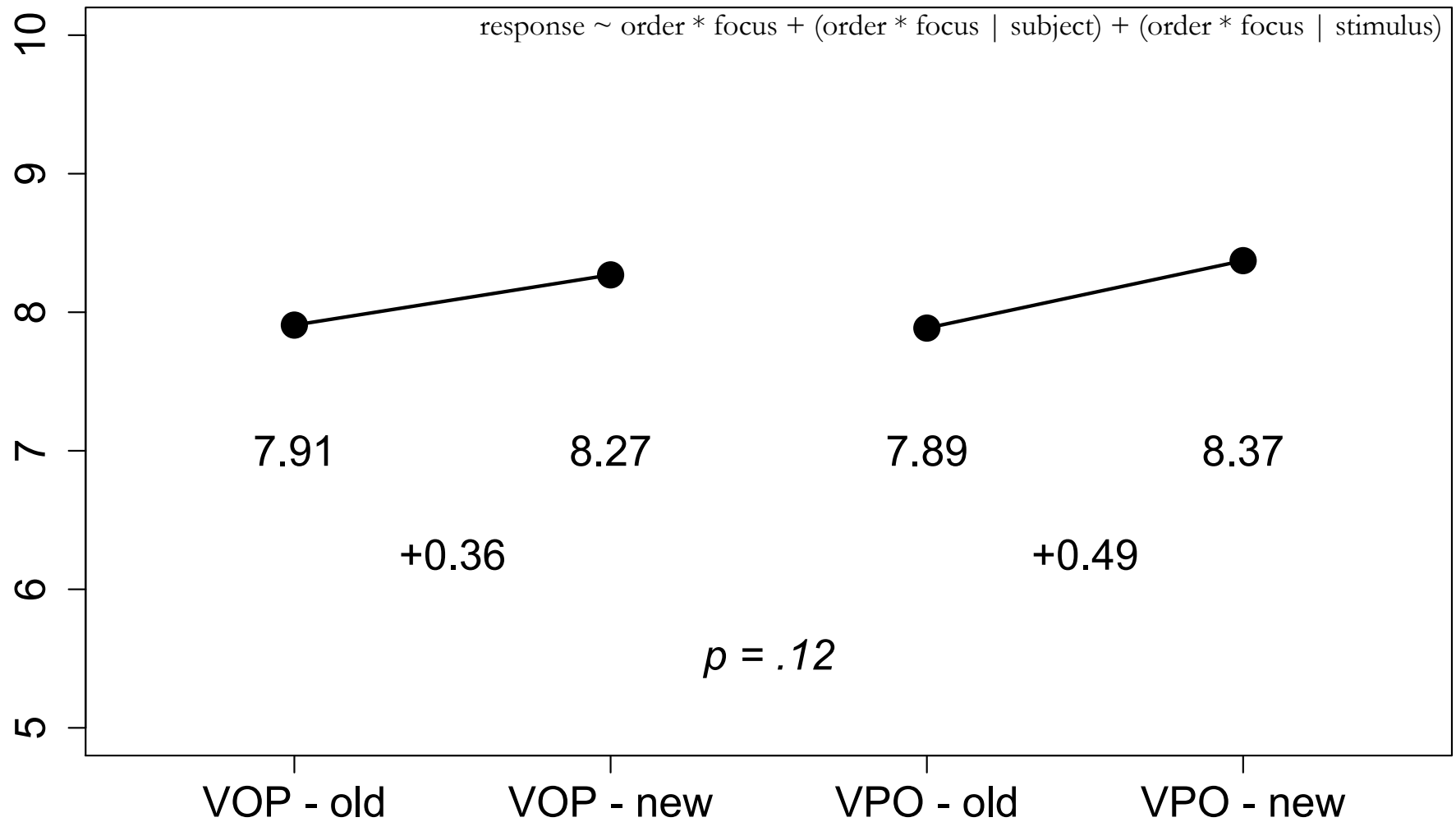
# object weight



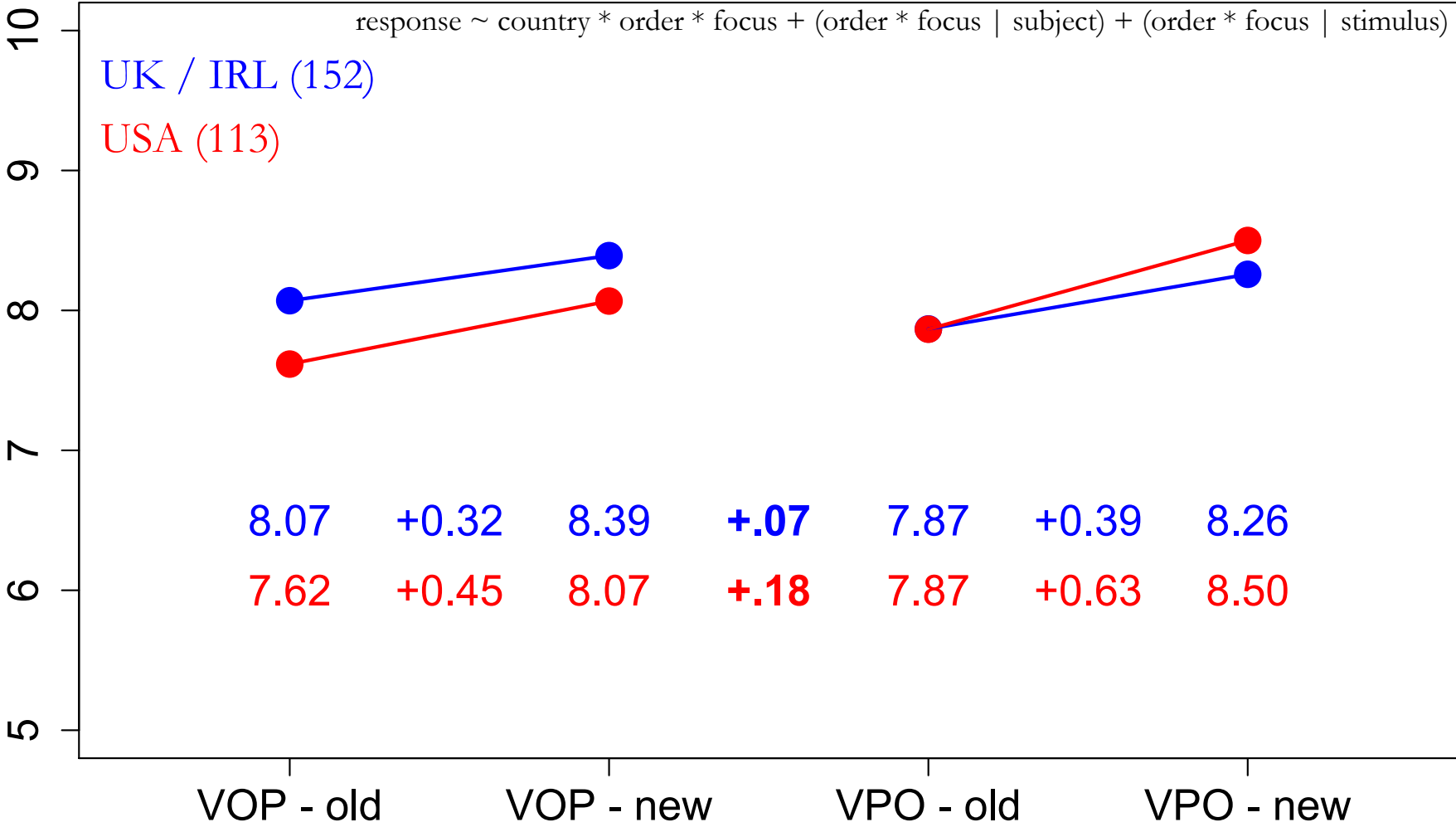
# object weight



# object newness

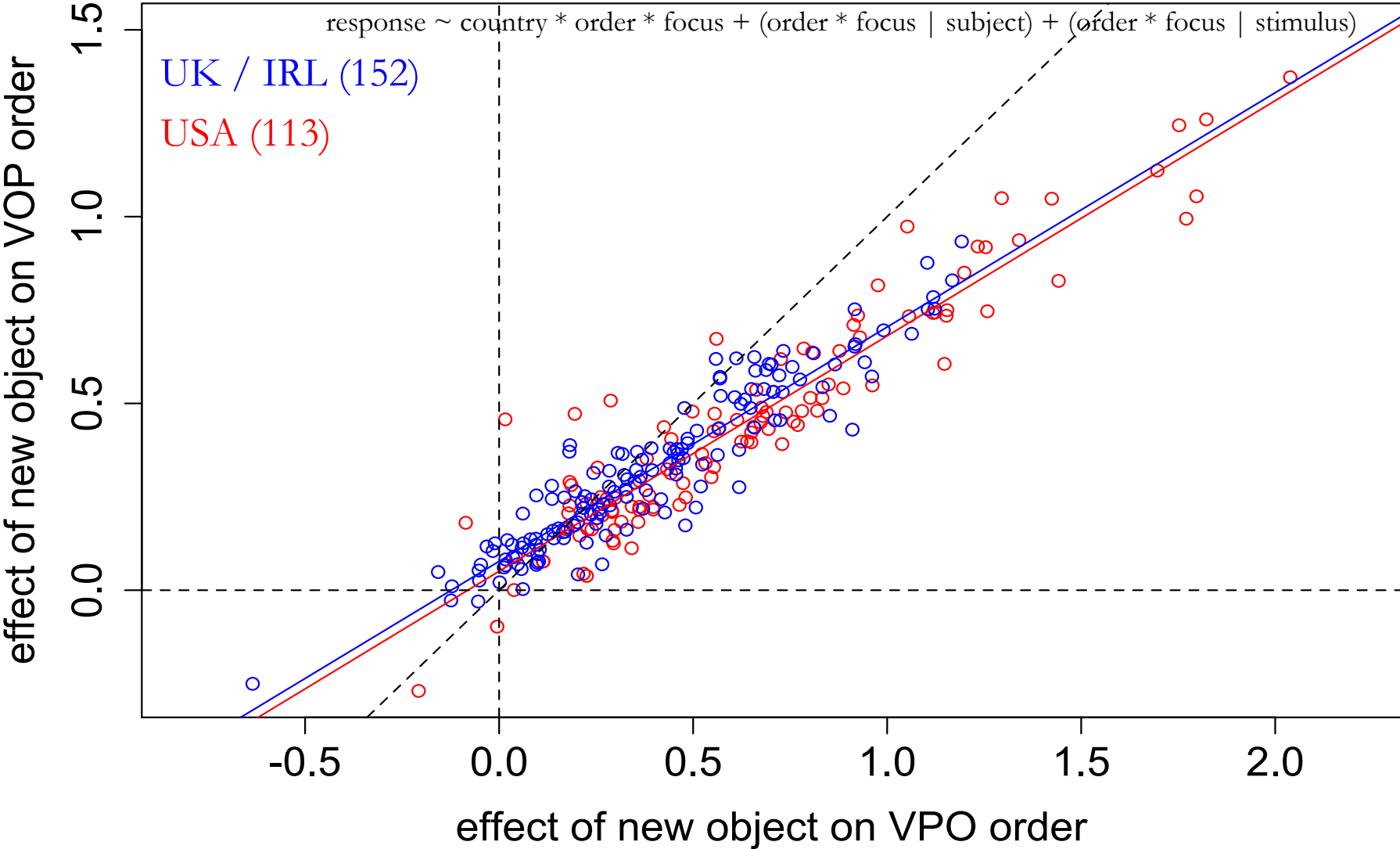


# object newness

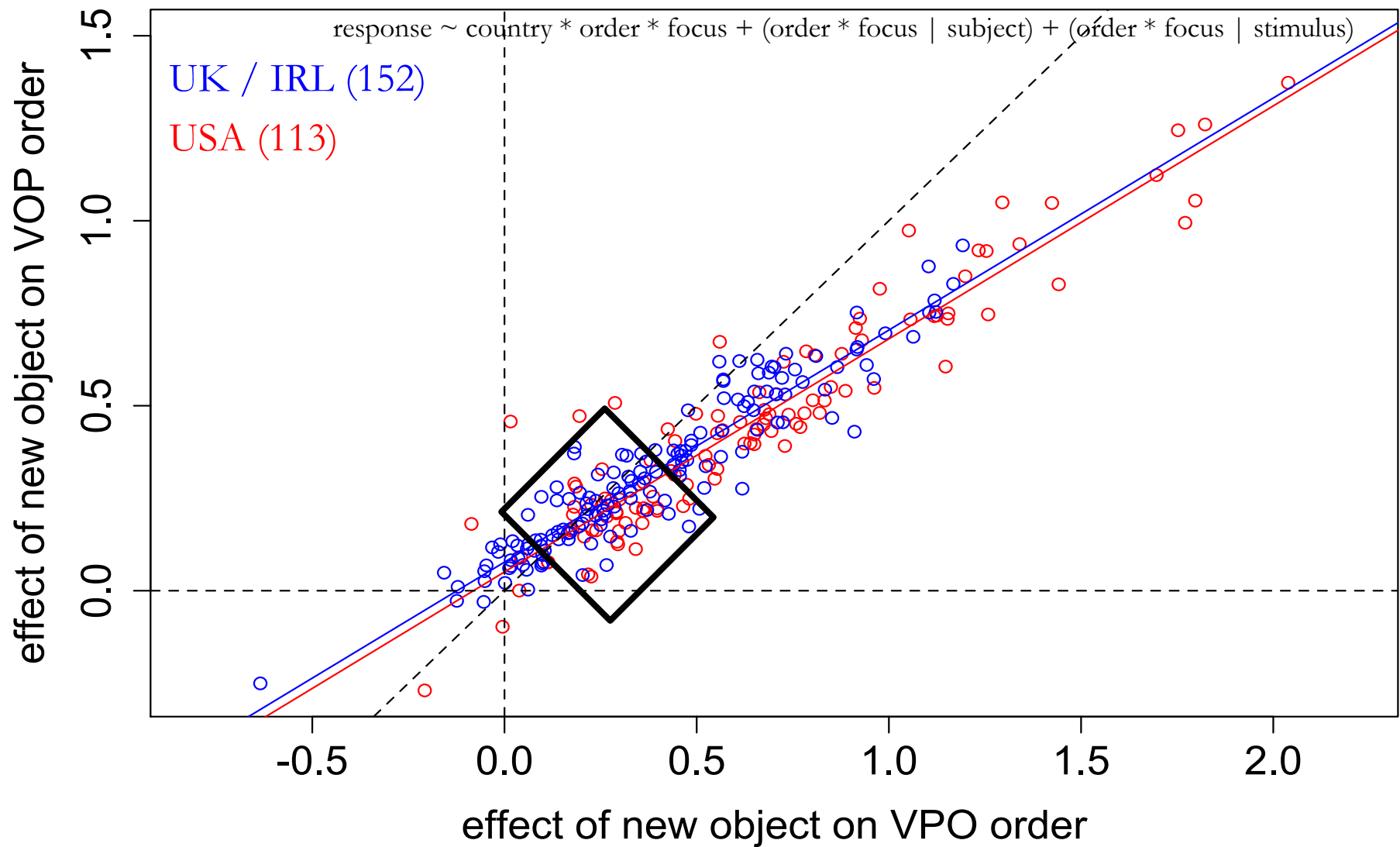




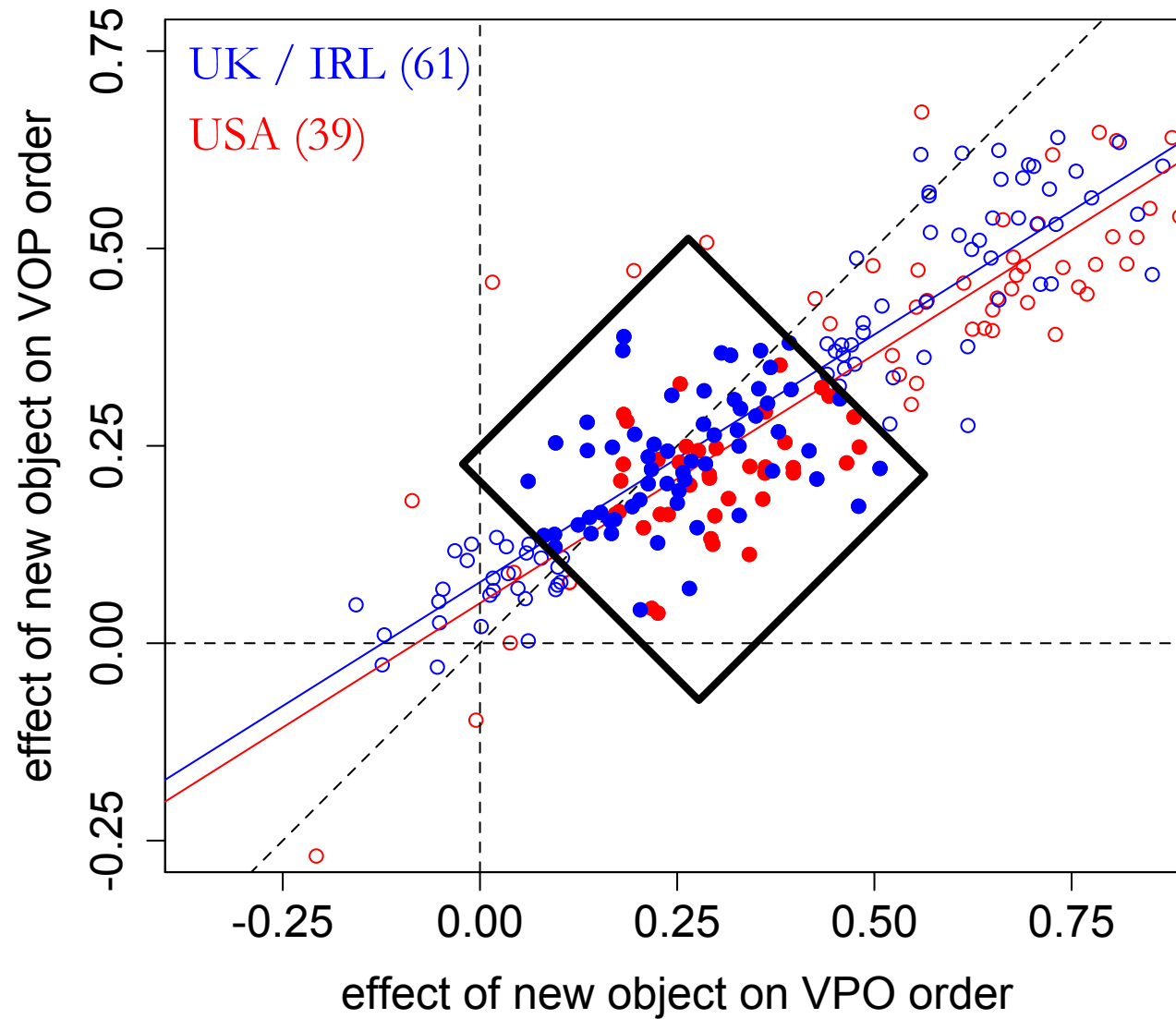
# object newness



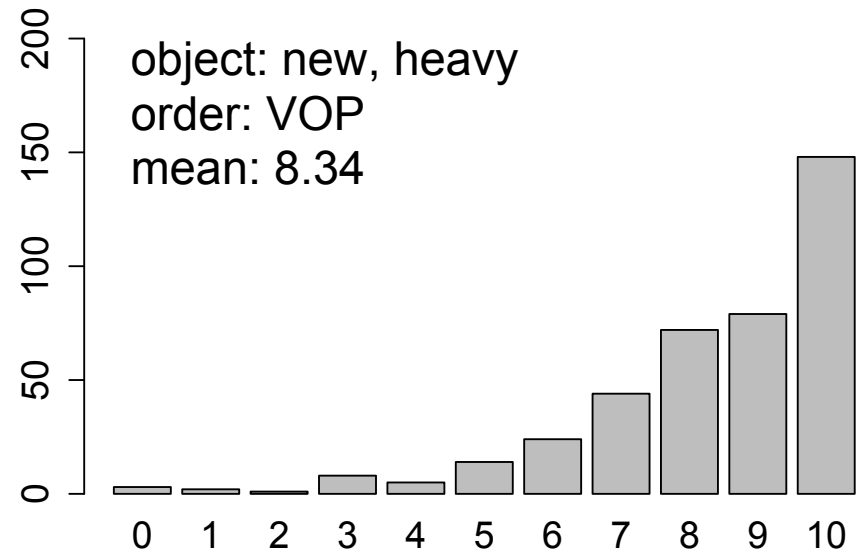
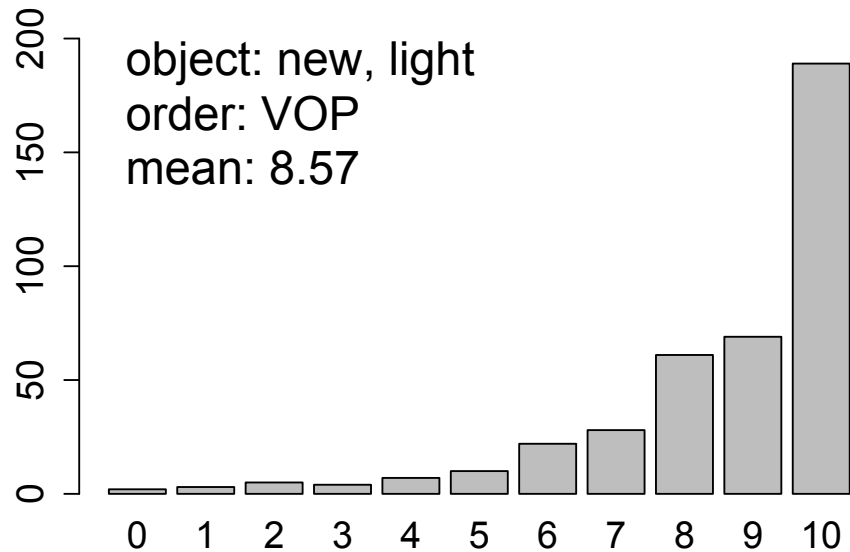
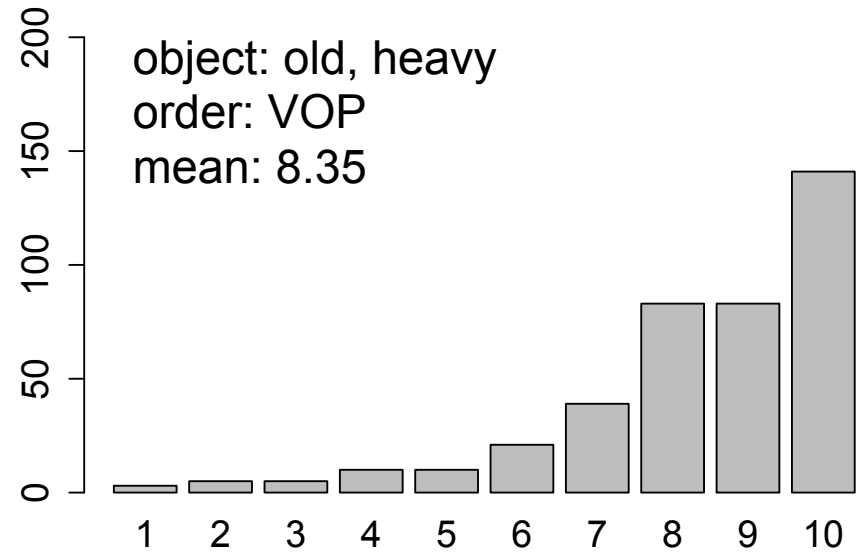
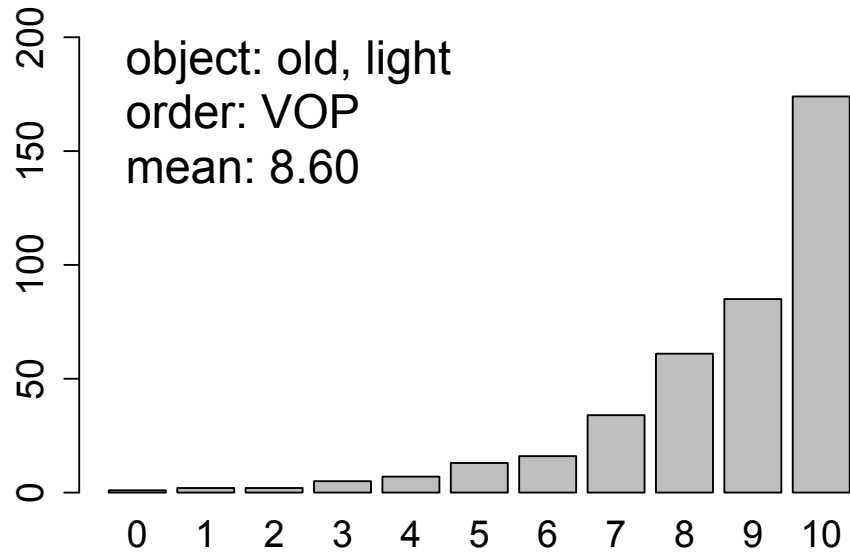
# object newness



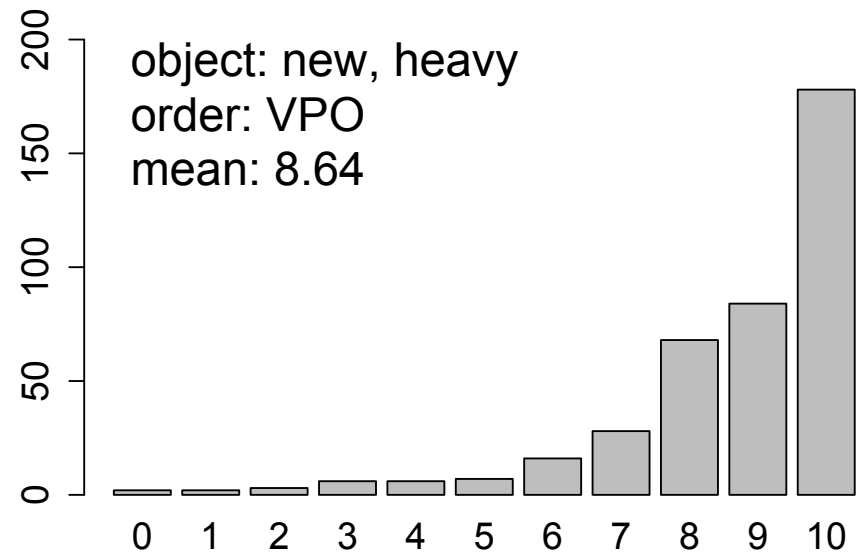
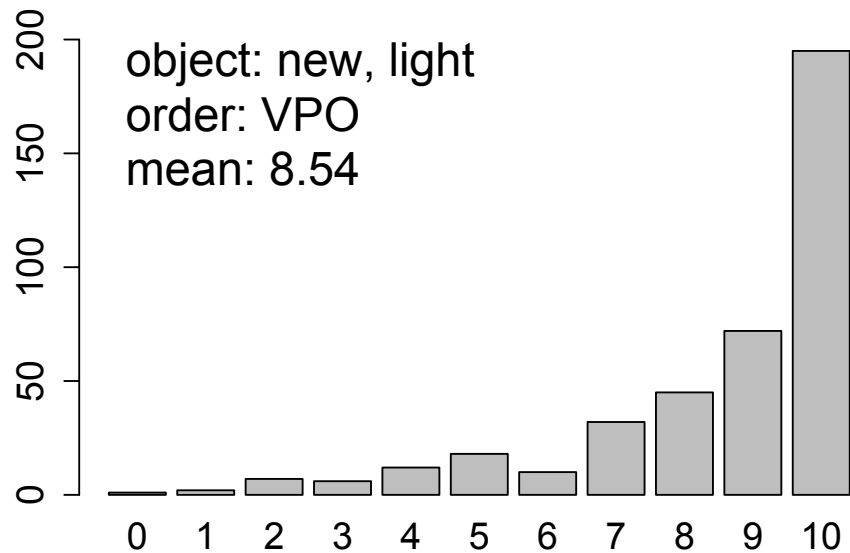
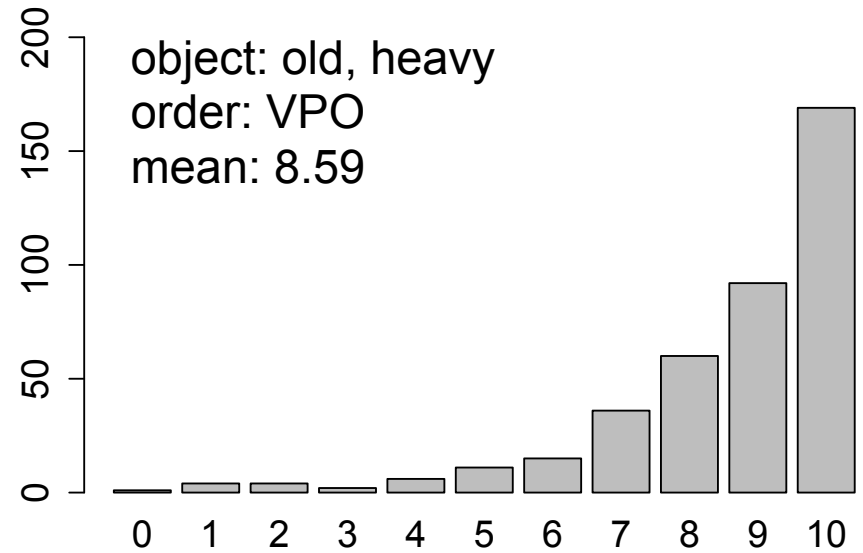
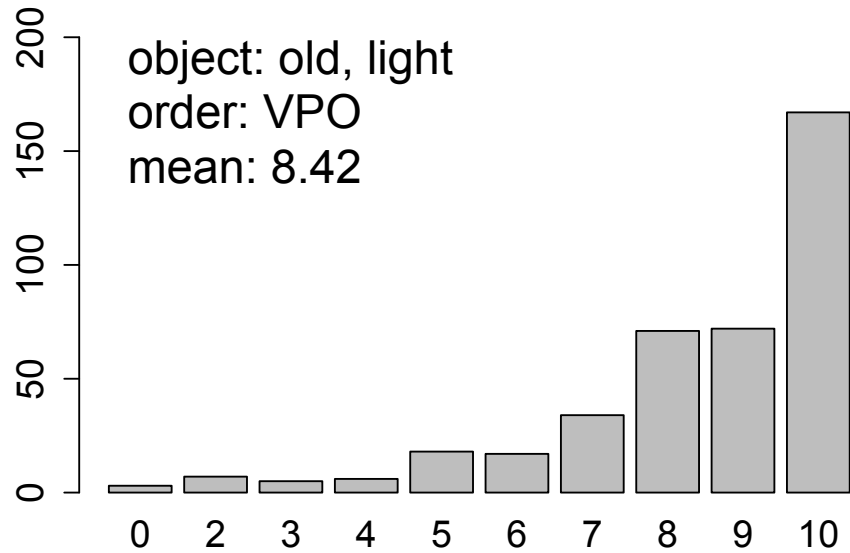
object weight \* object newness ?



# object weight \* object newness ?



# object weight \* object newness !



# conclusions

- prosodic and information-structural effects on word order variation can be elicited experimentally
- measuring acceptability on 11-point Likert scale, then treating it as linear – while not ideal! – gave better results than attempts at normalization
- subjects vary along every dimension you measure
- subject random effects are very valuable data
- two word order ‘alternants’ can appear linked or ‘yoked’ together, cf. quantum entanglement
- object weight and information status can interact

# more discussion and questions

- constituent length can be extragrammatical, but it can also affect ‘grammar competition’
- can ‘the same’ effect be in 2 places (economy)?
- despite (arguably) being represented in syntax, information structure also affects competition
- does any variation arise in the syntax proper?
- can we constrain ‘grammar competition’ to make it distinguishable from ‘lower-level’ variation?
- whether 2 or 3 levels, syntax = phonology?



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