

Experiment 3: summa + age groups

Before Exclusions

Number of participants tested:

```
## [1] 536
```

Participants in each condition:

```
##
##      all_QUD any_QUD no_QUD
## 18-25      81      83      72
## 45+      100      100      100
```

Exclusions

Non-unique participants (remove all attempts):

```
## [1] 230 230
```

Age doesn't match age given in prescreening or left blank:

```
## workerid age age_group qud correct_group
## 1      101 34 18-25 anyQUD              0
## 2      109 NA 18-25 anyQUD             <NA>
## 3      110 27 18-25 anyQUD              0
## 4      181 NA 18-25 noQUD             <NA>
## 5      205 NA 18-25 noQUD             <NA>
## 6      300 NA 45+ allQUD             <NA>
## 7      393 NA 45+ anyQUD             <NA>
```

Participants whose native language is not english:

Because we prescreened participants for this experiment, people who left it blank will not be excluded this time

```
## workerid language
## 1      28
## 2      77 Bulgarian
## 3      109
## 4      128 cantonese
## 5      152
## 6      163 Spanish
## 7      172 Spanish
## 8      205
## 9      241
## 10     300
## 11     365
## 12     393
## 13     533 Mandarin
```

Participants who got at least three practice trials wrong:

```
##
## 3 4
## 10 13
```

Participants who got the audio check wrong more than one once:

```
##
## 366
## 1
```

Participants who got the second comprehension question wrong more than twice:

```
## # A tibble: 0 x 2
## # Groups:   workerid [0]
## # ... with 2 variables: workerid <int>, n <int>
```

Participants with accuracy of lower than 85% on non-critical trials:

```
## # A tibble: 26 x 4
## # Groups:   workerid, gaveRightAnswer [26]
##   workerid gaveRightAnswer      n accuracy
##   <int> <chr>          <int>   <dbl>
## 1      19 1             36    56.2
## 2      26 1             35    54.7
## 3      76 1             32     50
## 4     129 1             33    51.6
## 5     153 1             33    51.6
## 6     157 1             33    51.6
## 7     168 1              5     7.81
## 8     195 1             34    53.1
## 9     259 1             32     50
## 10    280 1             53    82.8
## # ... with 16 more rows
```

Additional Exclusions

Participants who gave more than 5 very slow ($\log RT > 20$) responses:

```
## # A tibble: 0 x 3
## # Groups:   workerid [0]
## # ... with 3 variables: workerid <int>, slowResponse <lgl>, n <int>
```

Responses that are faster than the onset of the quantifier ($\text{rawRT} < 600$):

```
## [1] 10
```

Responses that are very slow ($\log RT > 20$):

```
## [1] 4
```

After Exclusions

Number of participants:

```
## [1] 471
```

Participants left in each condition:

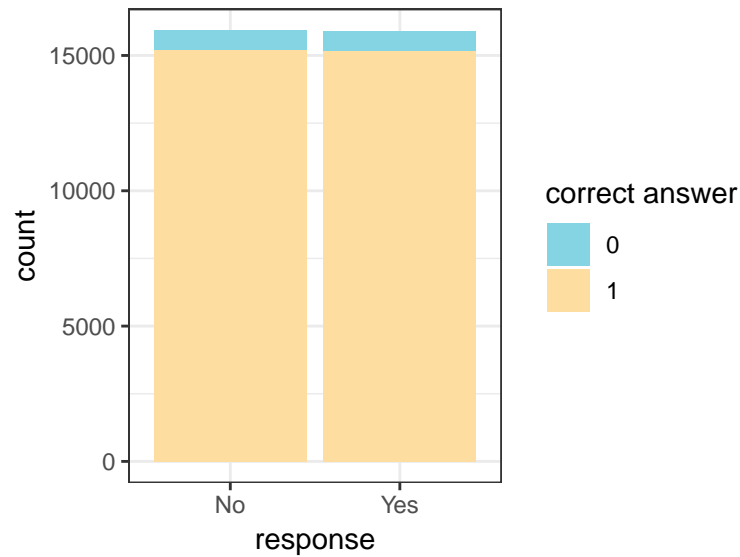
```
##
## all_QUD any_QUD no_QUD
##    159    152    160
```

General

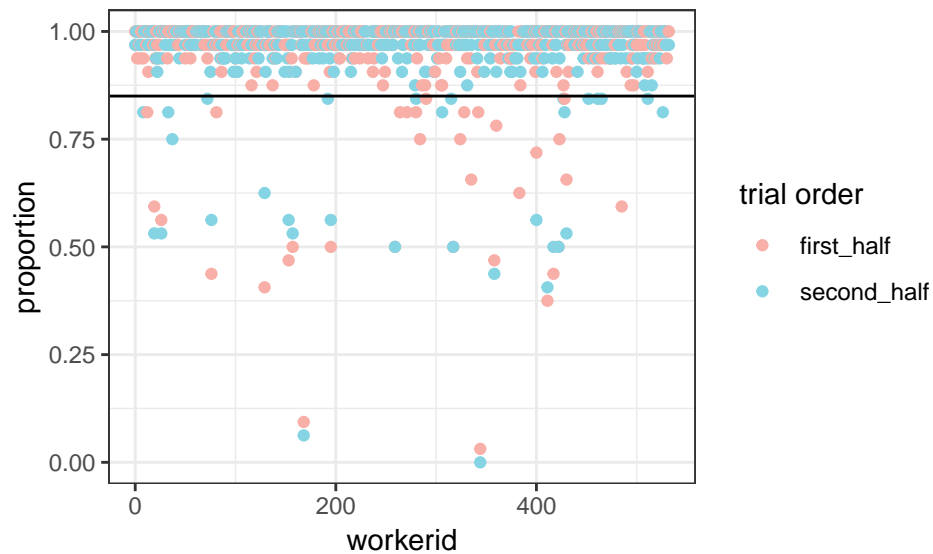
Expected number of yes and no answers:

```
##  
##      No      Yes  
## 15904 15904
```

Accuracy

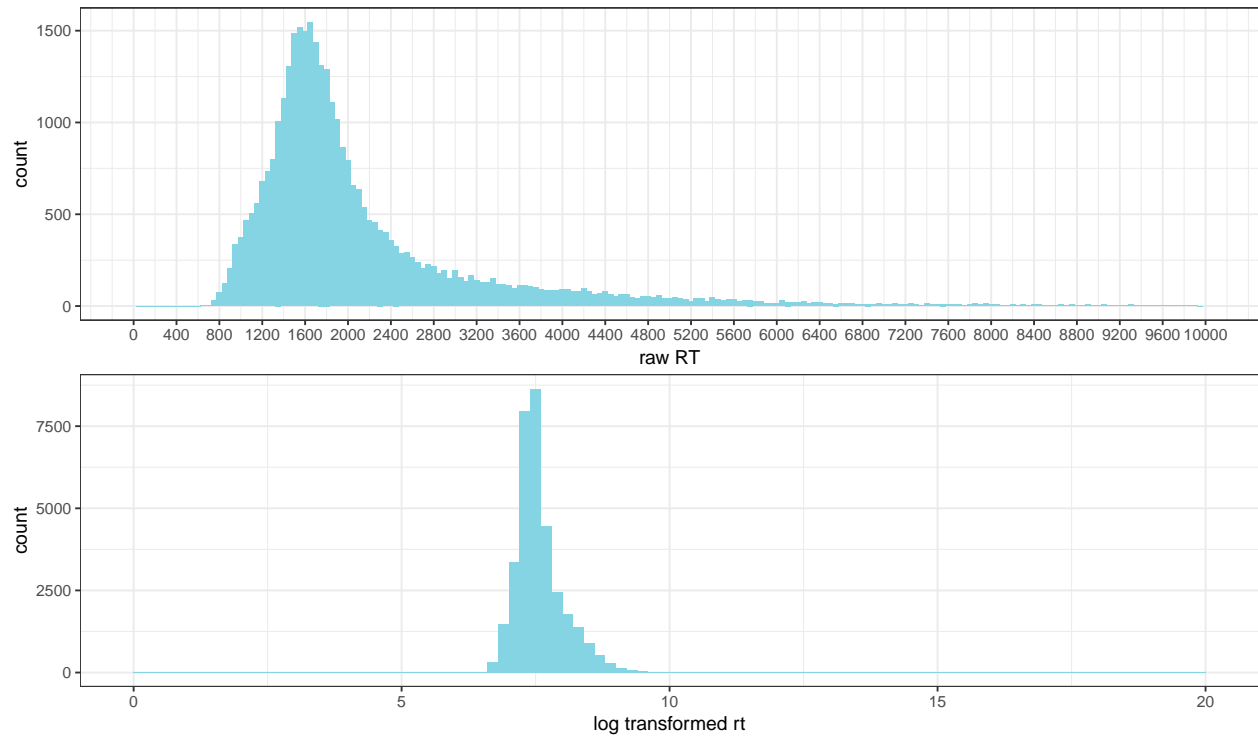


Accuracy and trial order



Distribution of RT and logRT

```
## Warning: Removed 170 rows containing non-finite values (stat_bin).  
## Warning: Removed 2 rows containing missing values (geom_bar).
```



15 fastest responses (raw RT)

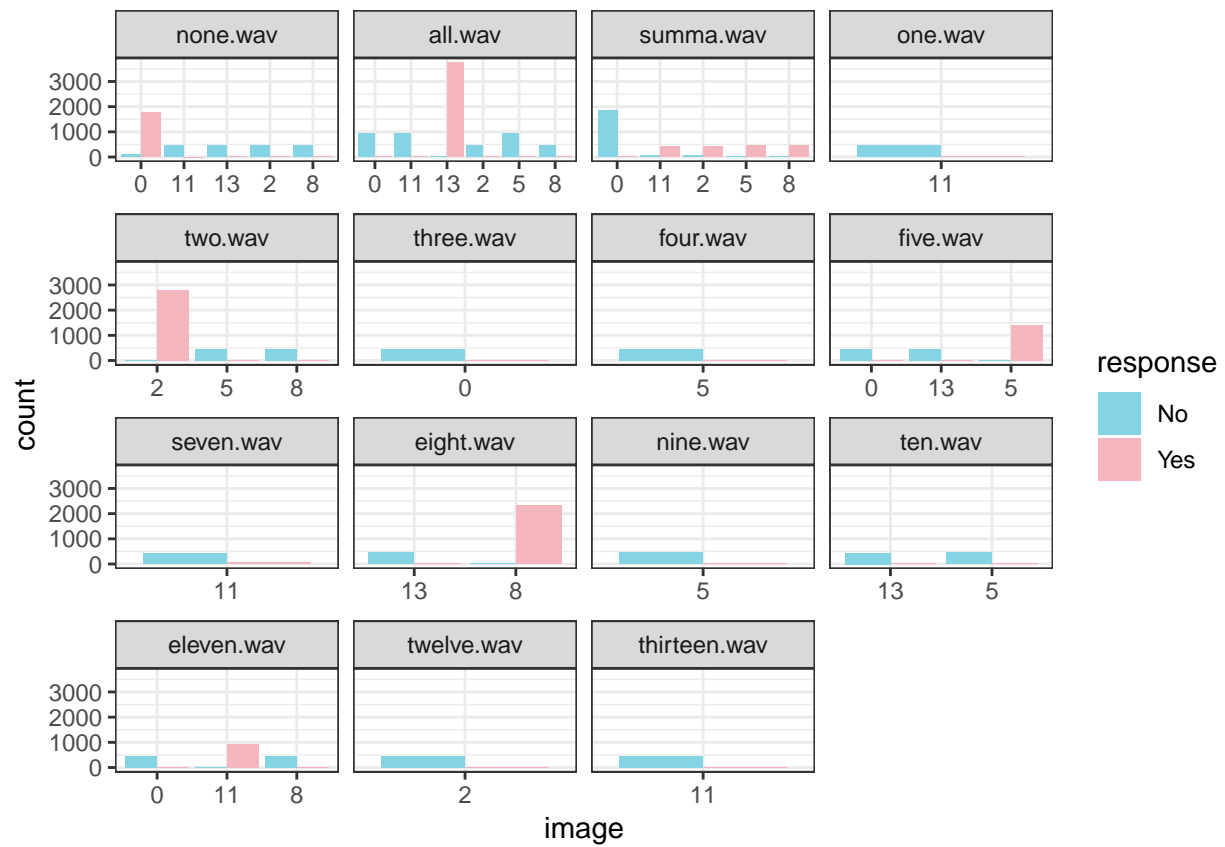
```
## [1] 650 663 667 689 711 711 712 715 731 738 739 740 743 745 750
```

15 slowest responses (raw RT)

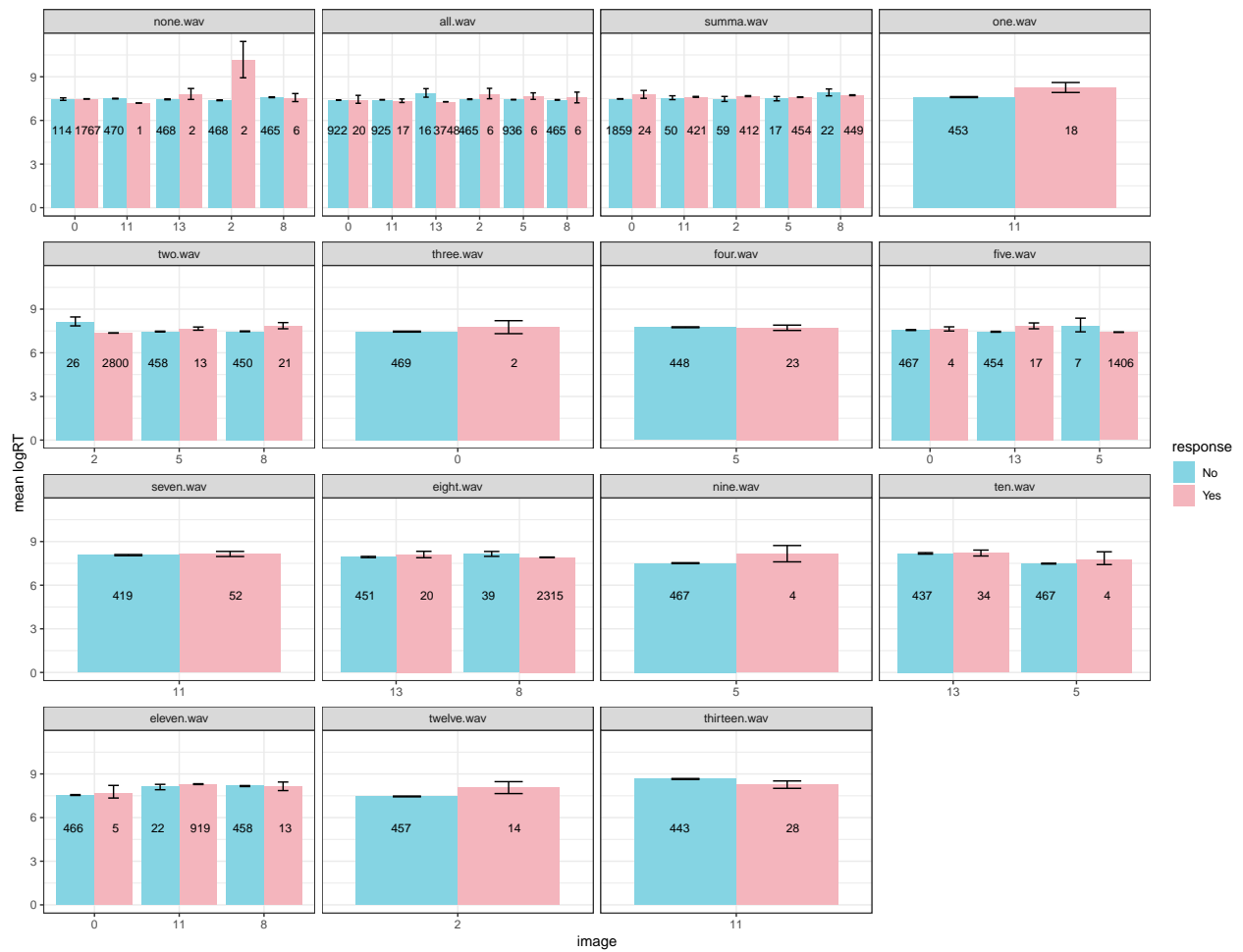
```
## [1] 30163 32167 33178 34888 35881 36507 39002 39438 40253 71041
## [11] 71813 78323 81411 91796 854982
```

Non-critical Trials

Response type:



Response time:

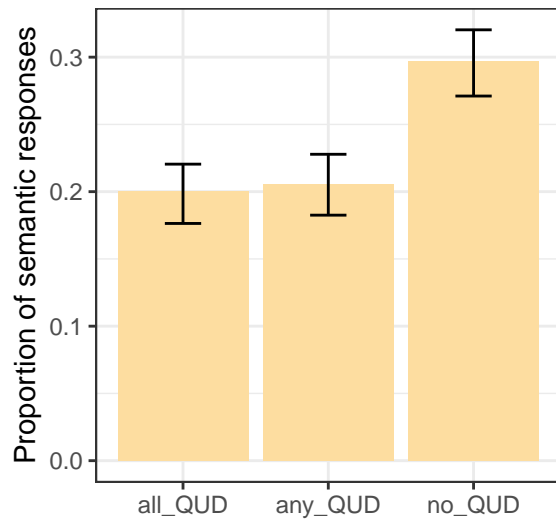


Critical Trials

Total number of critical trials (8 per participant):

```
## [1] 3766
```

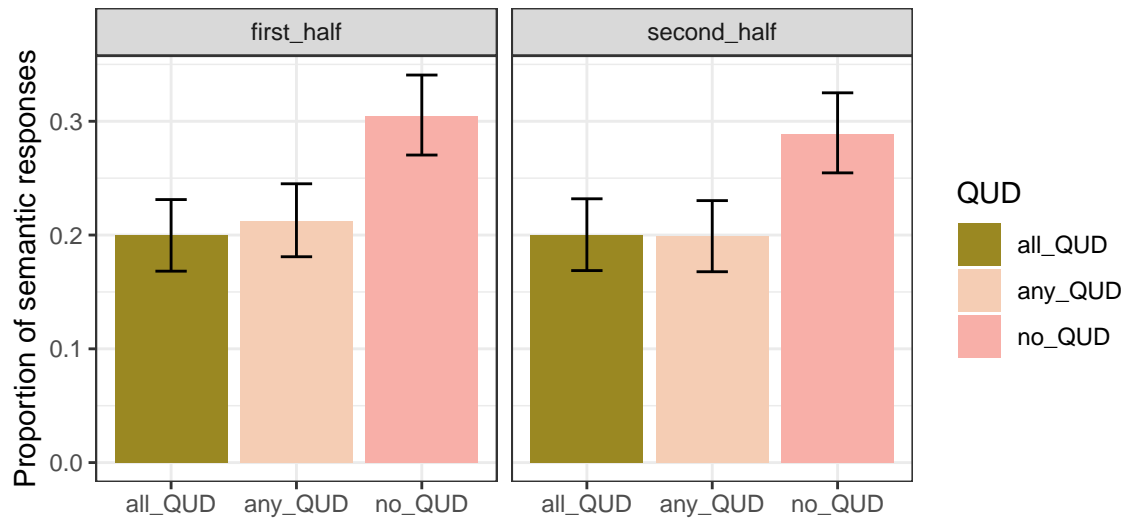
Response Type



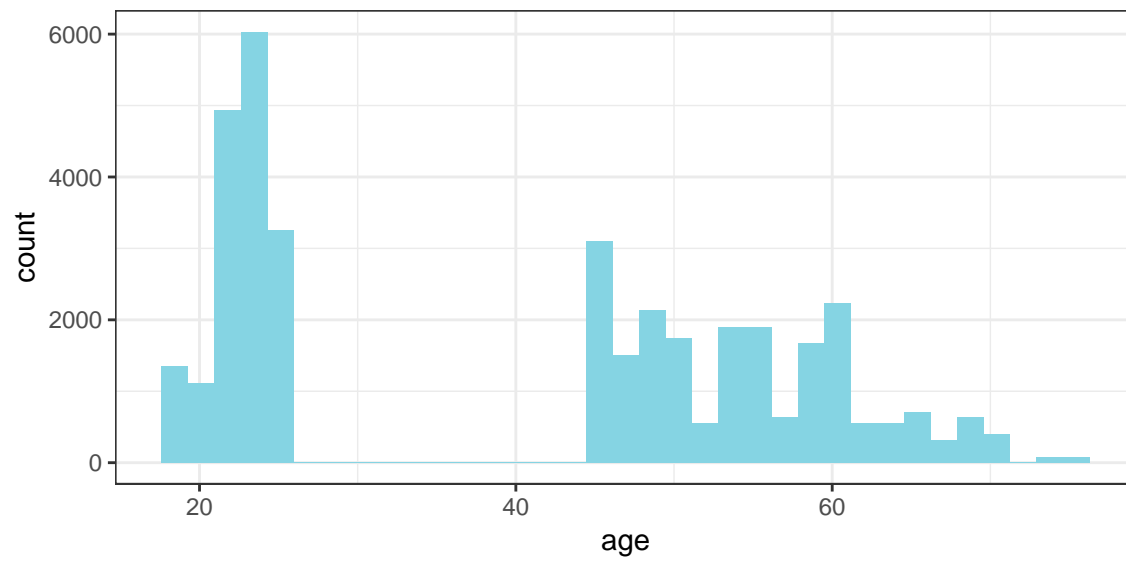
Distribution of participants over number of semantic responses

##		0	1	2	3	4	5	6	7	8
##	all_QUD	15	7	2	3	5	3	7	17	100
##	any_QUD	17	4	2	3	5	4	2	23	92
##	no_QUD	33	7	0	3	2	6	5	16	88

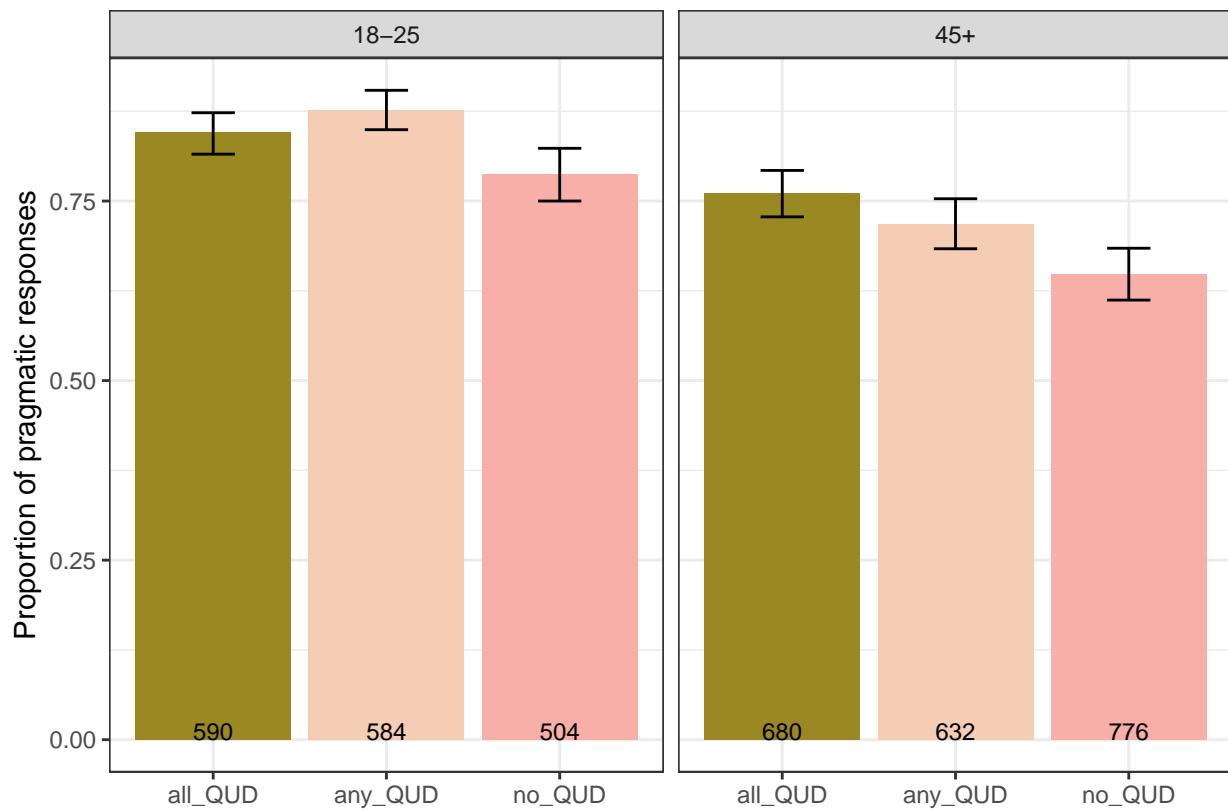
Response type and trial order



Age distribution of participants



Response type and age

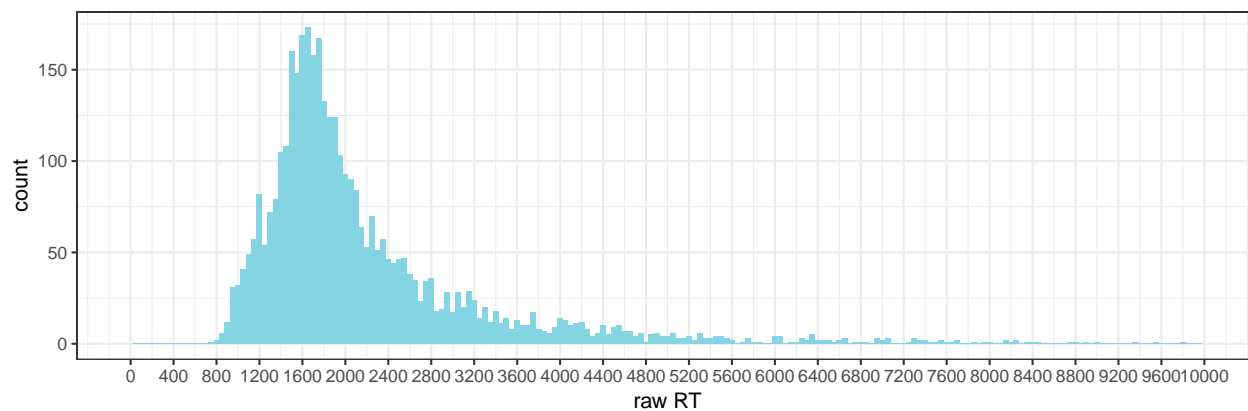


Response Time

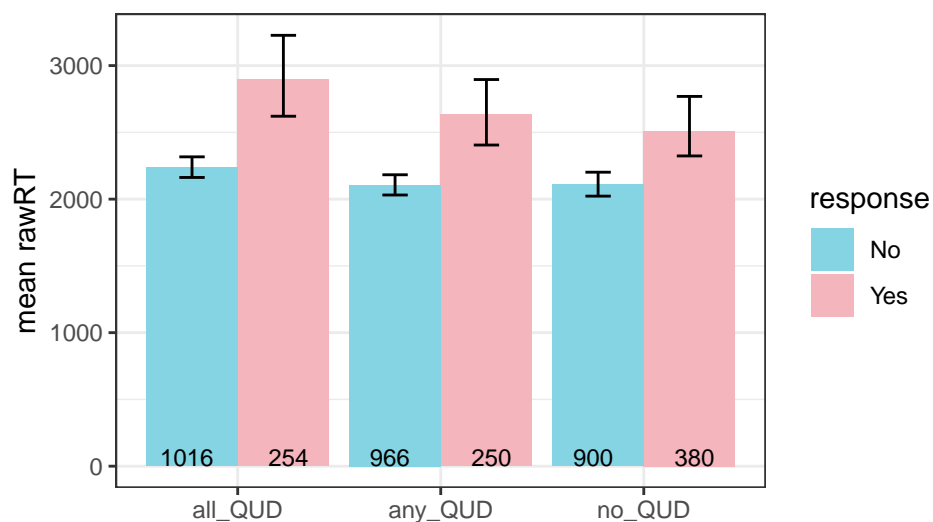
Distribution of response times in critical trials

Warning: Removed 23 rows containing non-finite values (stat_bin).

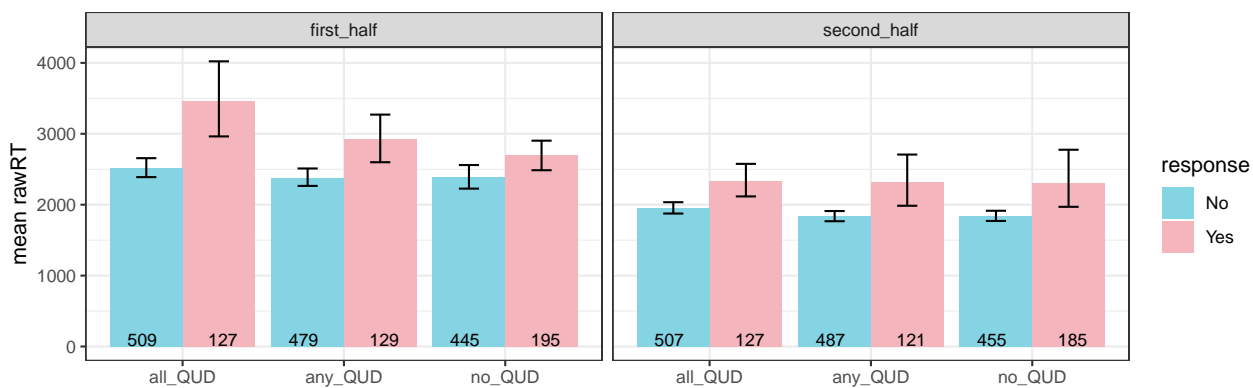
Warning: Removed 2 rows containing missing values (geom_bar).



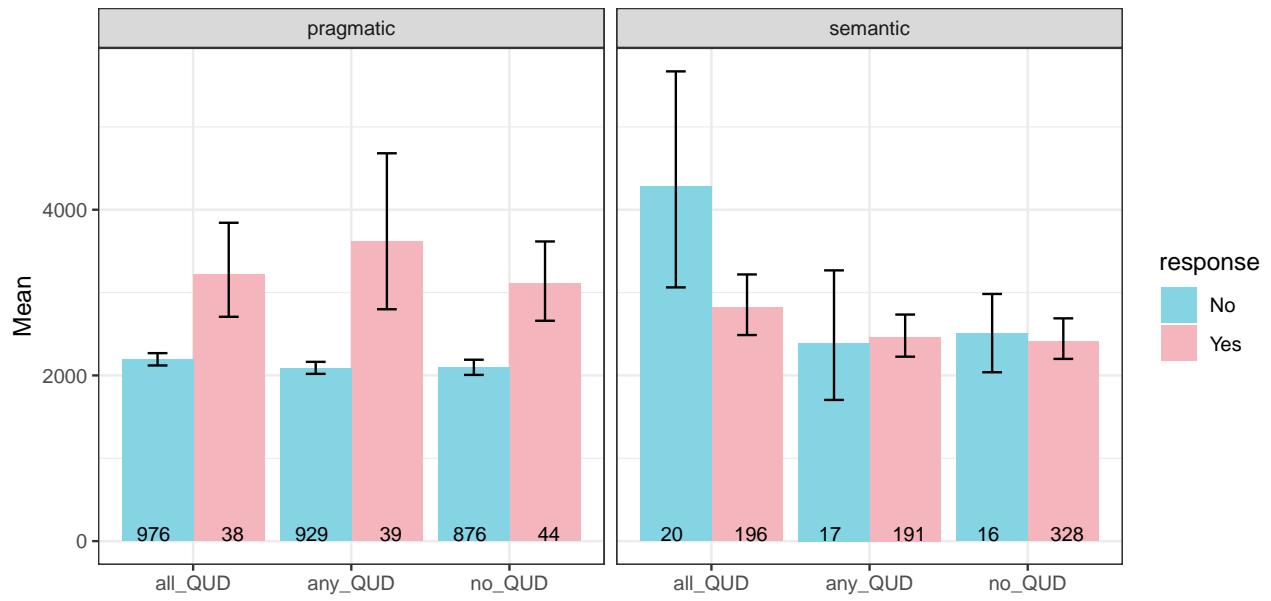
Response time and QUD



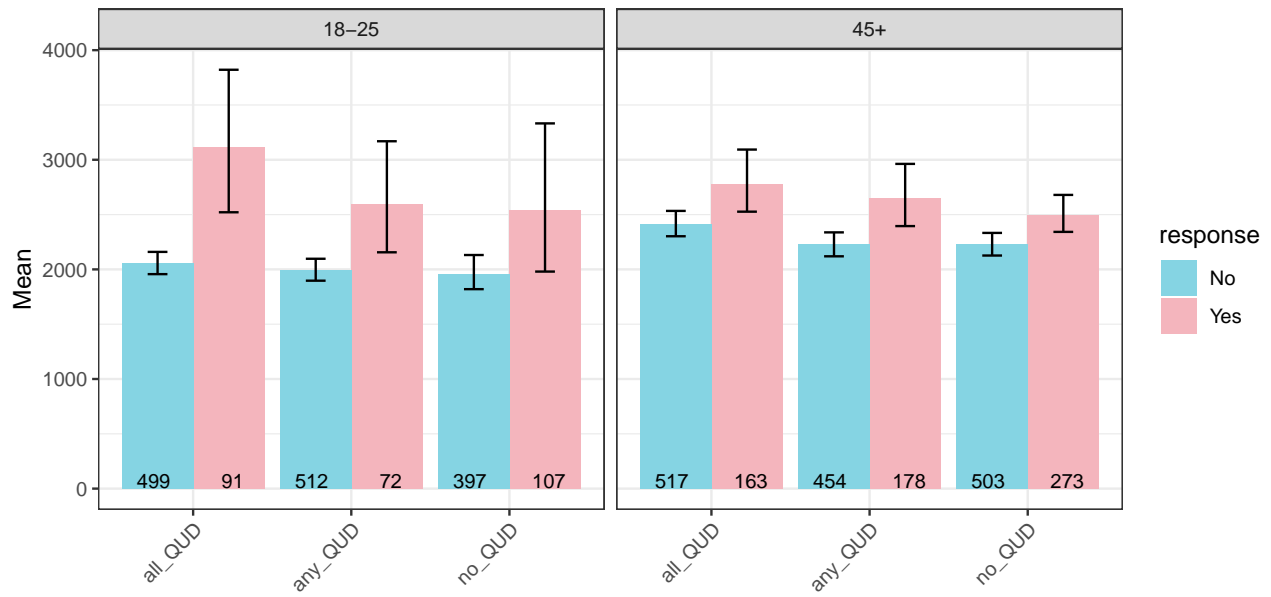
Response time, trial order and QUD



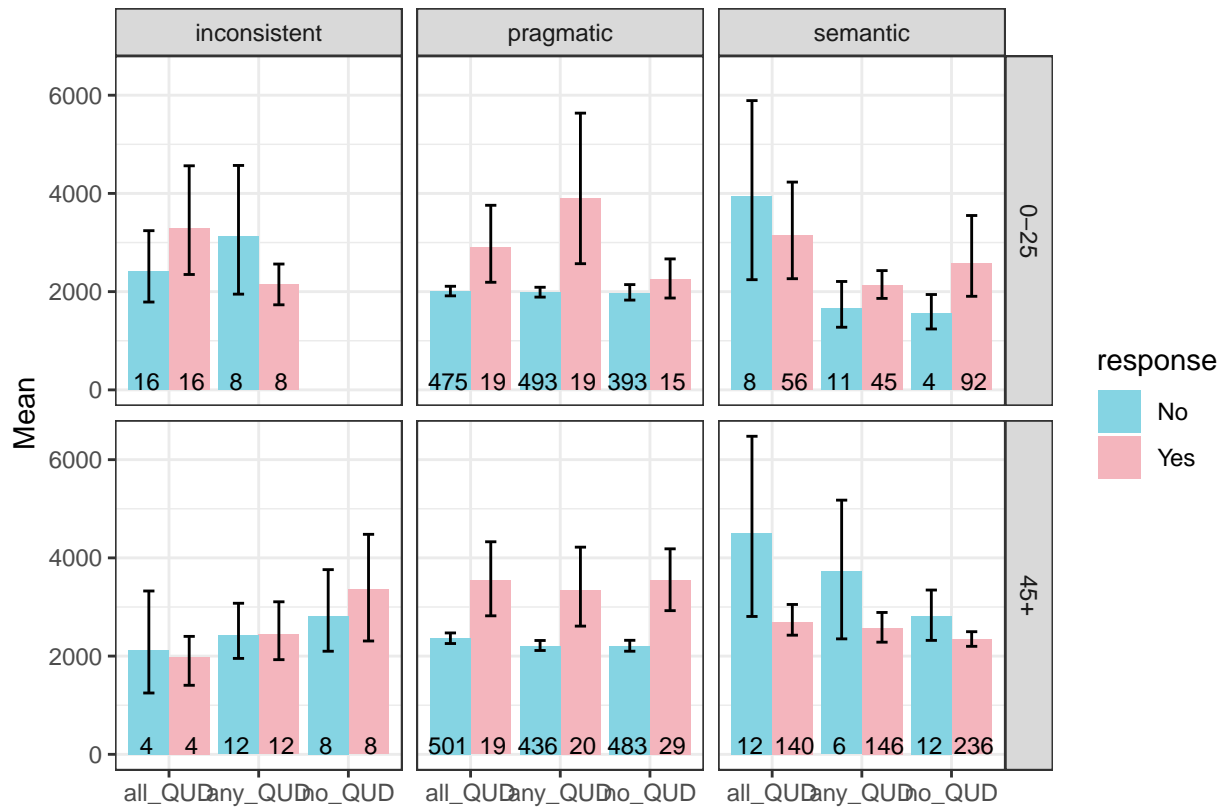
Response time, responder type and QUD



Response time, age and QUD



Response time, age, responder type and QUD



Models