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: 1 x 2
## # Groups:   workerid [1]
##   workerid     n
##      <int> <int>
## 1       75     2
```

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 (logRT>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 onser of the quantifier (rawRT<600):

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

Responses that are very slow (logRT>20):

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

After Exclusions

Number of participants:

```
## [1] 470
```

Participants left in each condition:

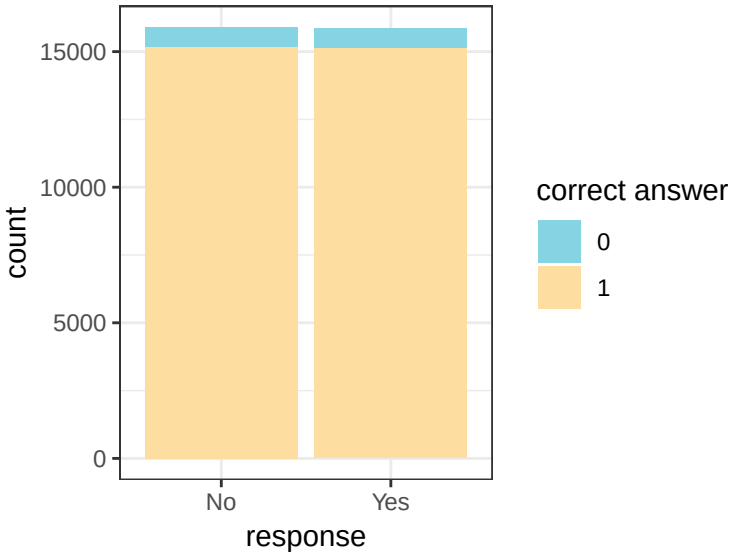
```
##
## all_QUD any_QUD  no_QUD
##     158     152     160
```

General

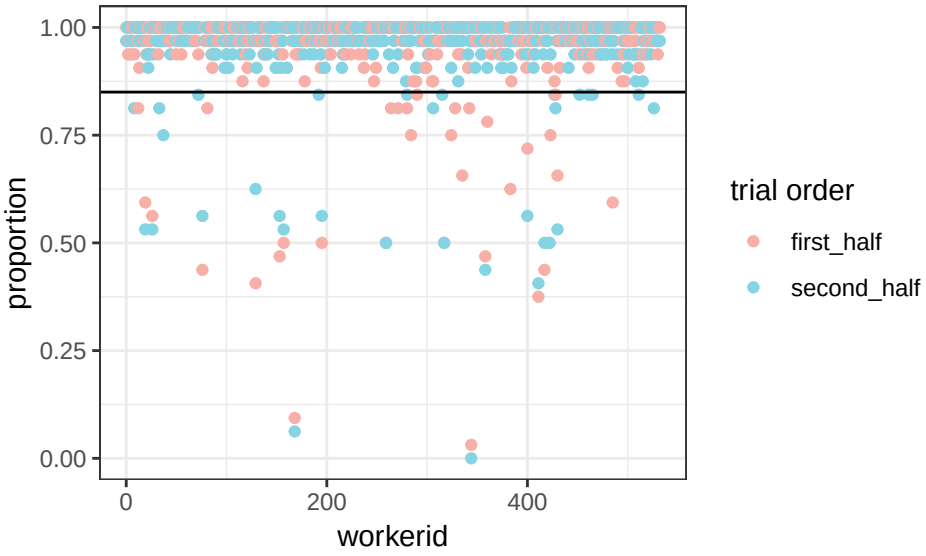
Expected number of yes and no answers:

```
##
##    No   Yes
## 15872 15872
```

Accuracy



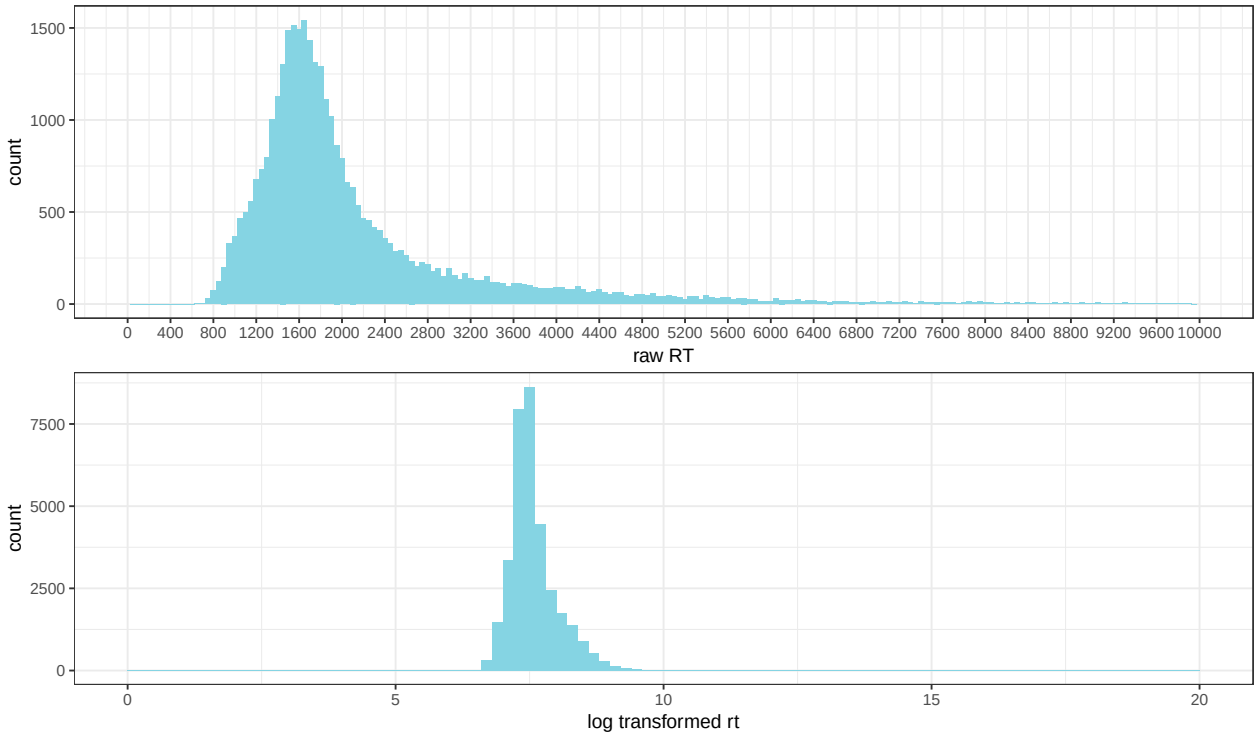
Accuracy and trial order



Distribution of RT and logRT

```
## Warning: Removed 169 rows containing non-finite values (stat_bin).
```

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



15 fastest responses (raw RT)

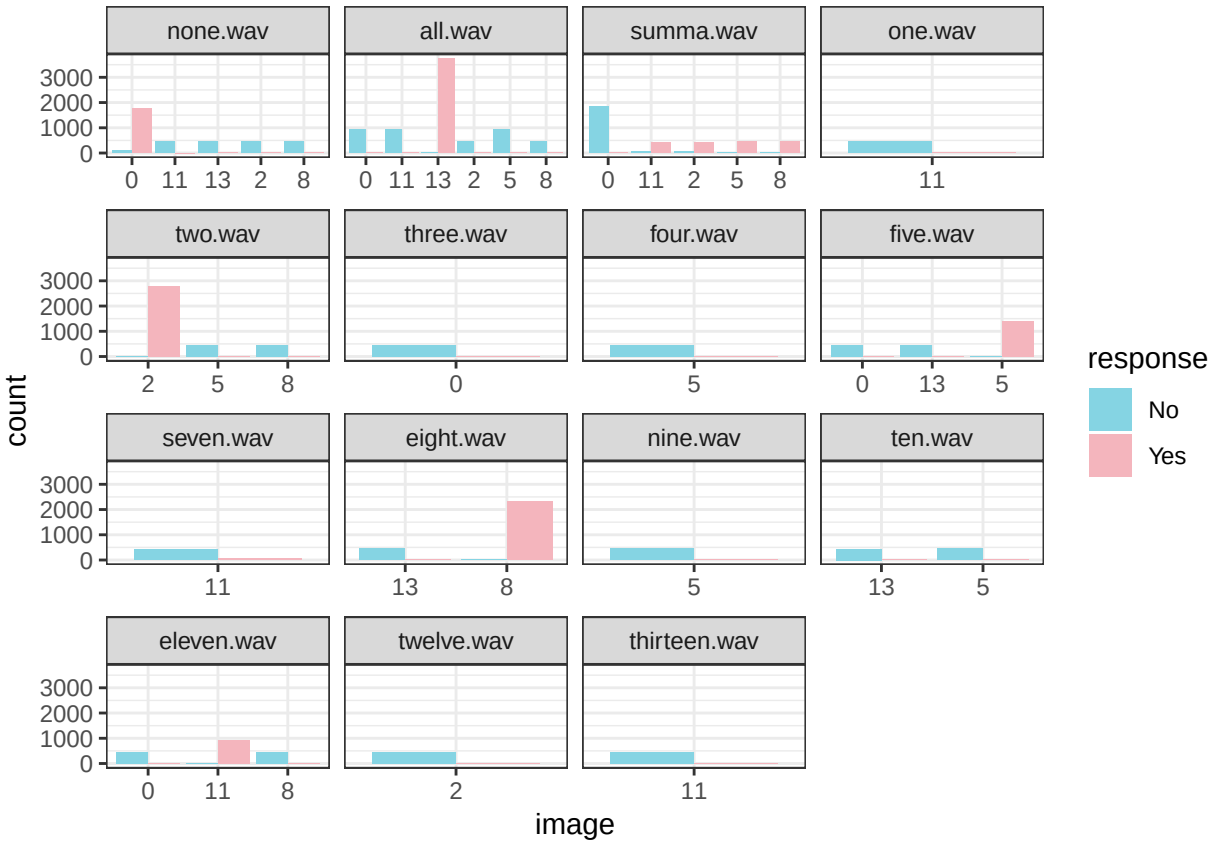
```
##  [1] 650 663 667 689 711 711 712 715 731 738 739 740 743 745 750
```

15 slowest responses (raw RT)

```
##  [1]  28927  30163  32167  33178  34888  35881  36507  39438  40253  71041
## [11]  71813  78323  81411  91796 854982
```

Non-critical Trials

Response type:



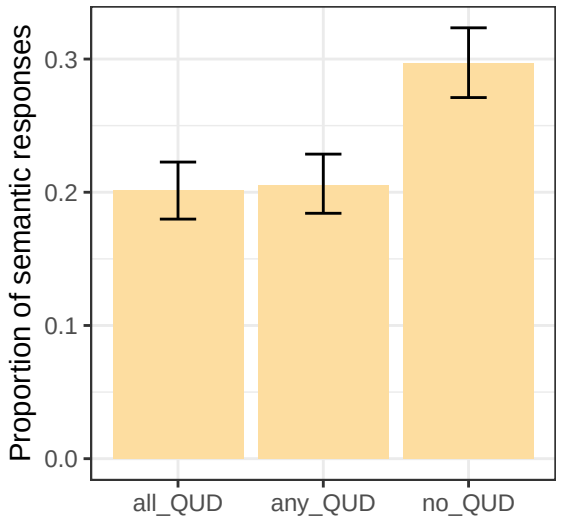
Response time:

Critical Trials

Total number of critical trials (8 per participant):

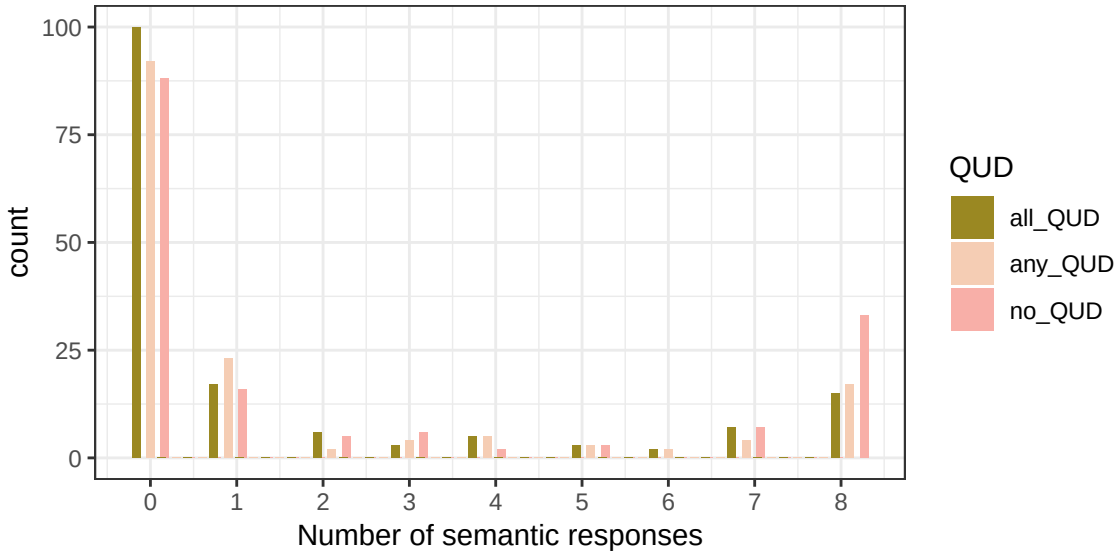
```
## [1] 3758
```

Response Type

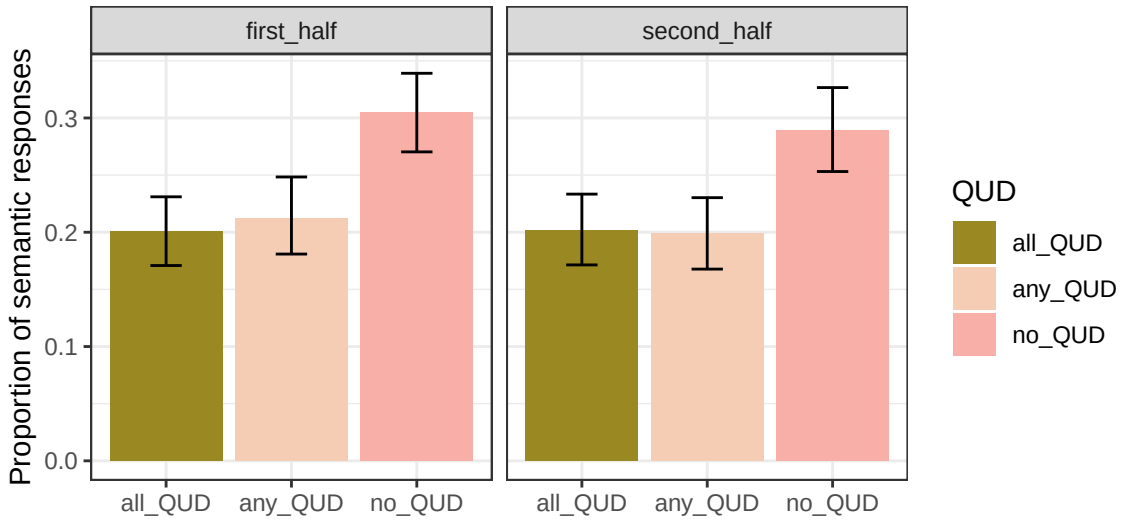


Distribution of participants over number of semantic responses

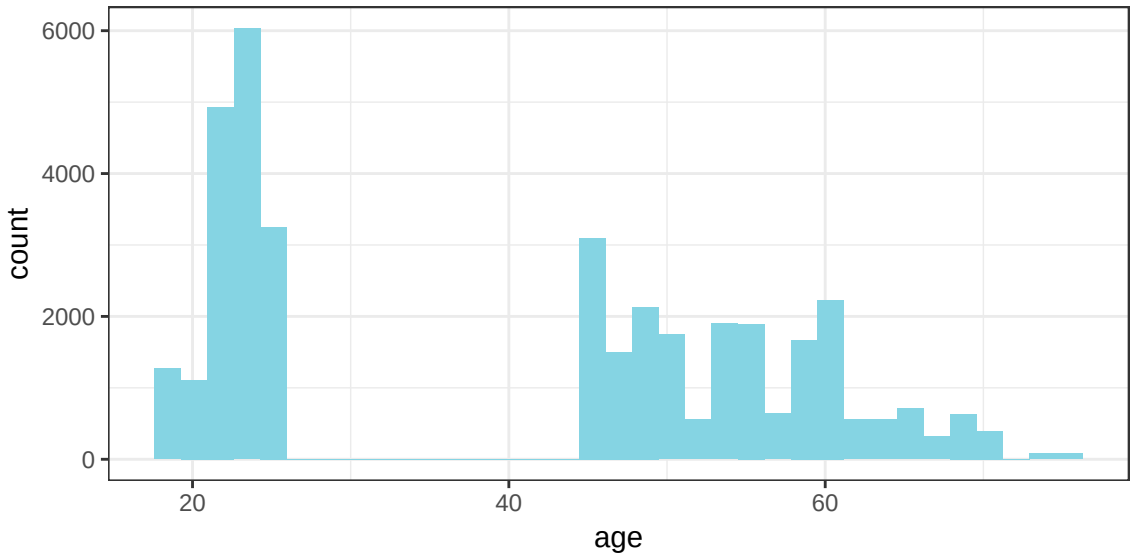
```
##
##              0   1   2   3   4   5   6   7   8
##   all_QUD  100  17   6   3   5   3   2   7  15
##   any_QUD   92  23   2   4   5   3   2   4  17
##   no_QUD    88  16   5   6   2   3   0   7  33
```



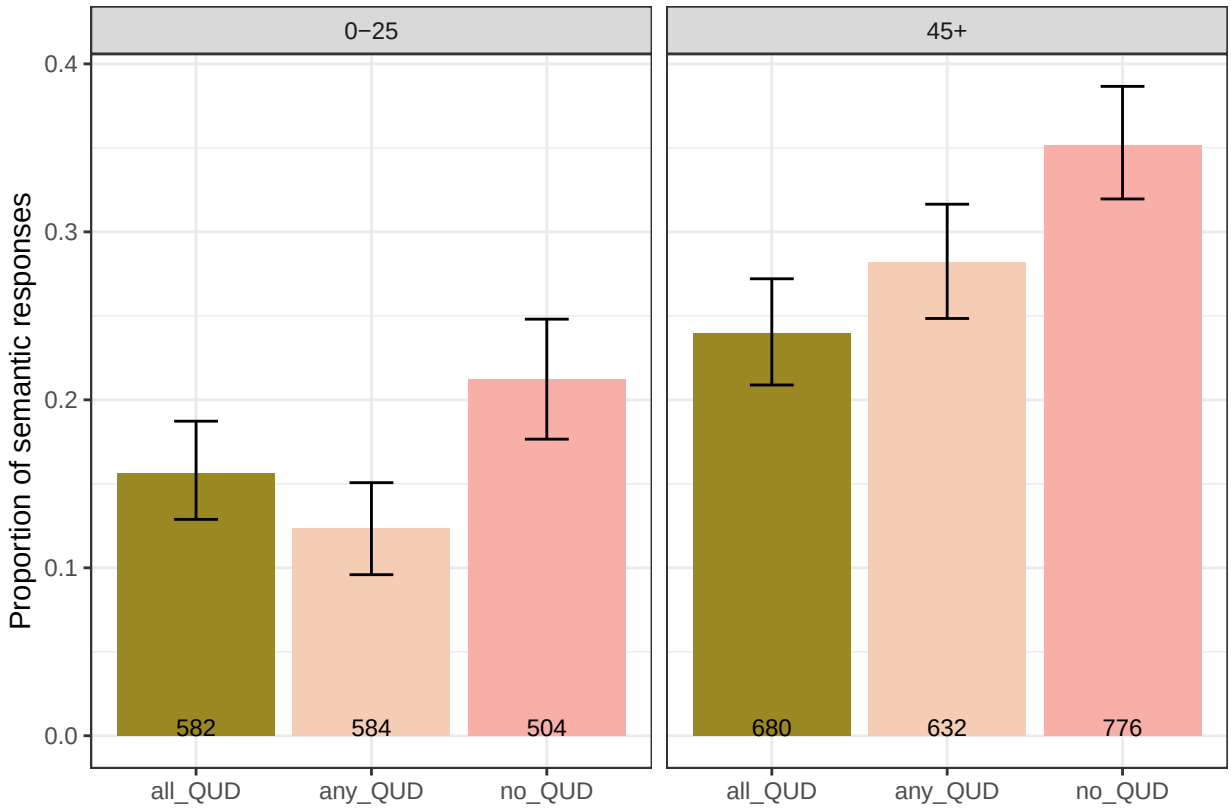
Response type and trial order



Age distribution of participants



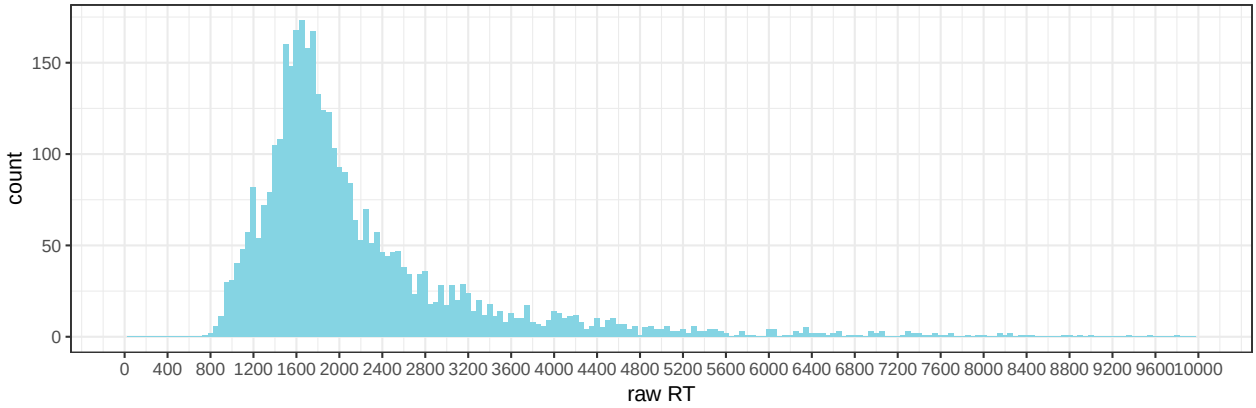
Response type and age



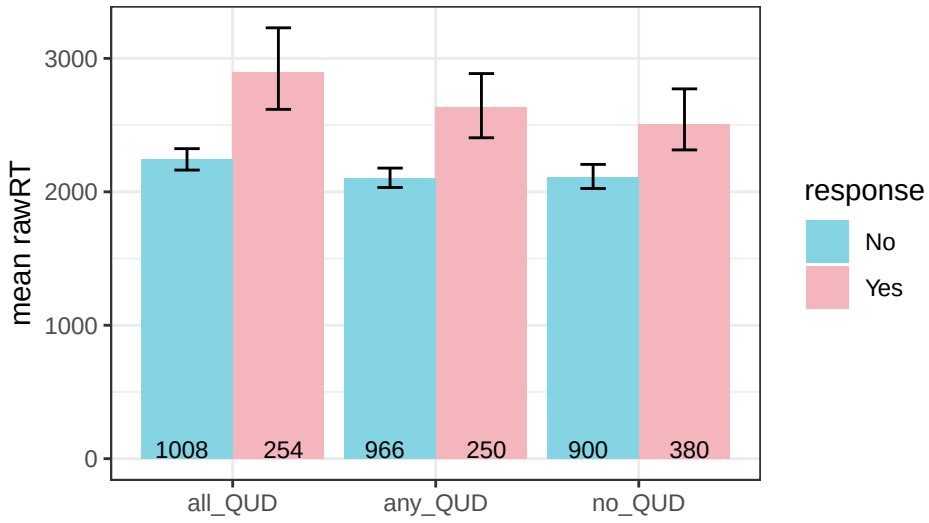
Response Time

Distribution of response times in critical trials

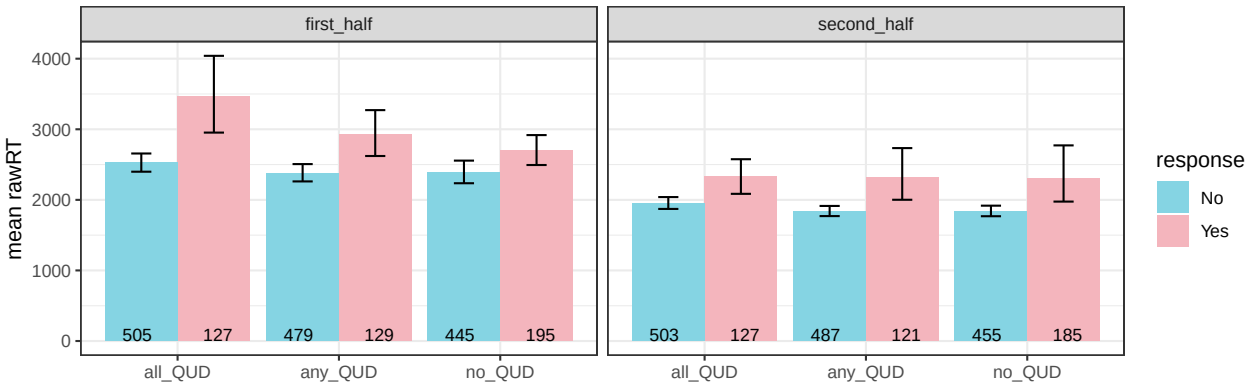
```
## Warning: Removed 23 rows containing non-finite values (stat_bin).
## Warning: Removed 2 rows containing missing values (geom_bar).
```



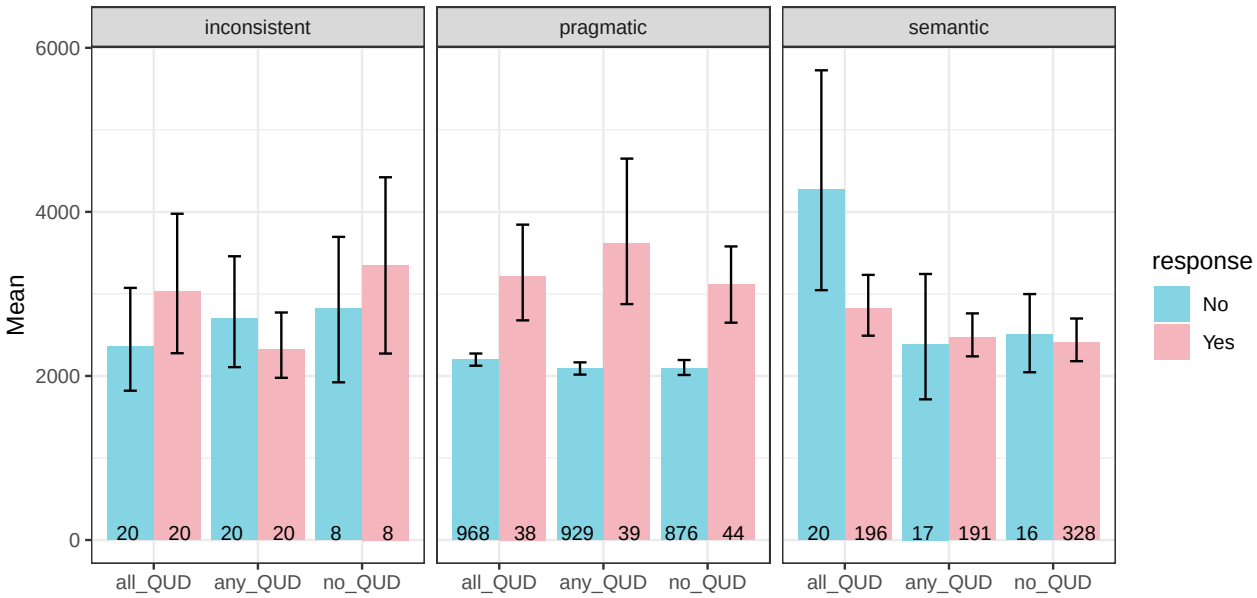
Response time and QUD



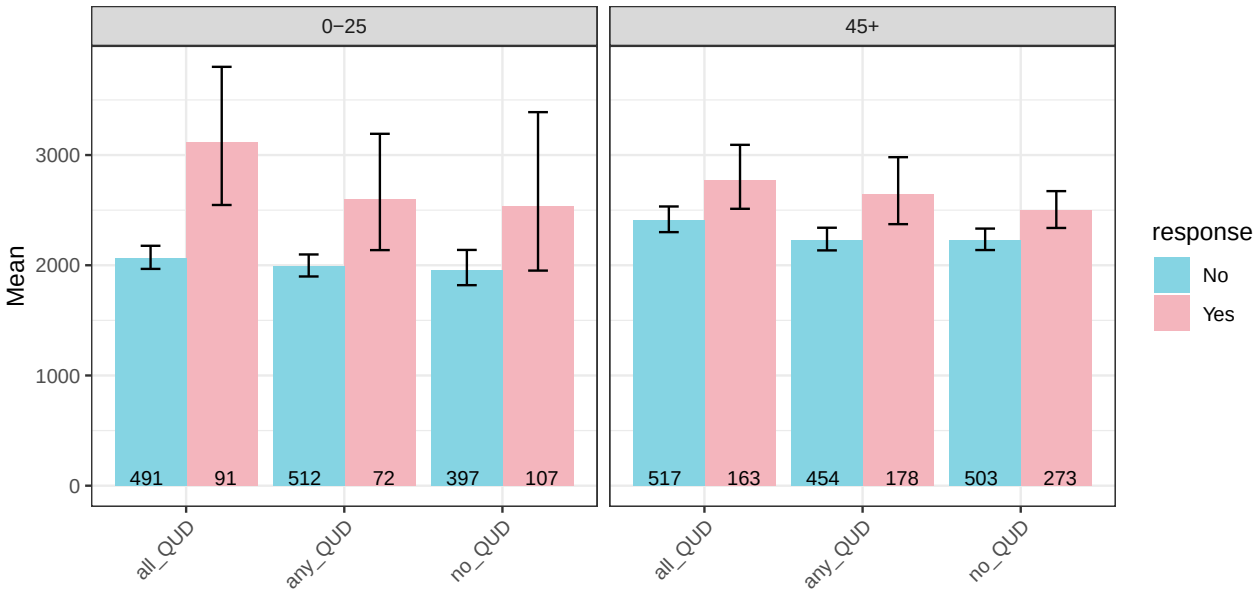
Response time, trial order and QUD



Response time, responder type and QUD



Response time, age and QUD



Response time, age, responder type and QUD