

```
source("synthesis_maximin.R")
# source("synthesis.R")
```

## Parameters and initial setup

```
lambda <- 5 # Rationality parameter
n <- 1

cost_orig <- costp()
cost_neg_cheap <- costp(nNPsg = 0.1, nNPpl = 0.1, `n!1` = 2.6)
cost_neg_exa_cheap <- costp(nNPsg = 0.1, nNPpl = 0.1, `!1` = 0.9, `n!1` = 1,
`+2` = 0.9, `n+2` = 1)
# cost <- cost_neg_cheap
cost <- cost_neg_exa_cheap
# cost <- cost_orig

P_w_flat <- P_wp()
P_w_sg_odd <- P_wp(w1 = 1 / 10)
P_w_pl_odd <- P_wp(`w2+` = 1 / 10)
P_w_sg_odd_extreme <- P_wp(w1 = 1 / 1000)
P_w_pl_odd_extreme <- P_wp(`w2+` = 1 / 1000)

P_Q_flat <- P_Qp()
P_Q_Qml <- P_Qp(Qml = 10)
P_Q_Qex <- P_Qp(Qex = 10)
P_Q_Qfine <- P_Qp(Qfine = 10)

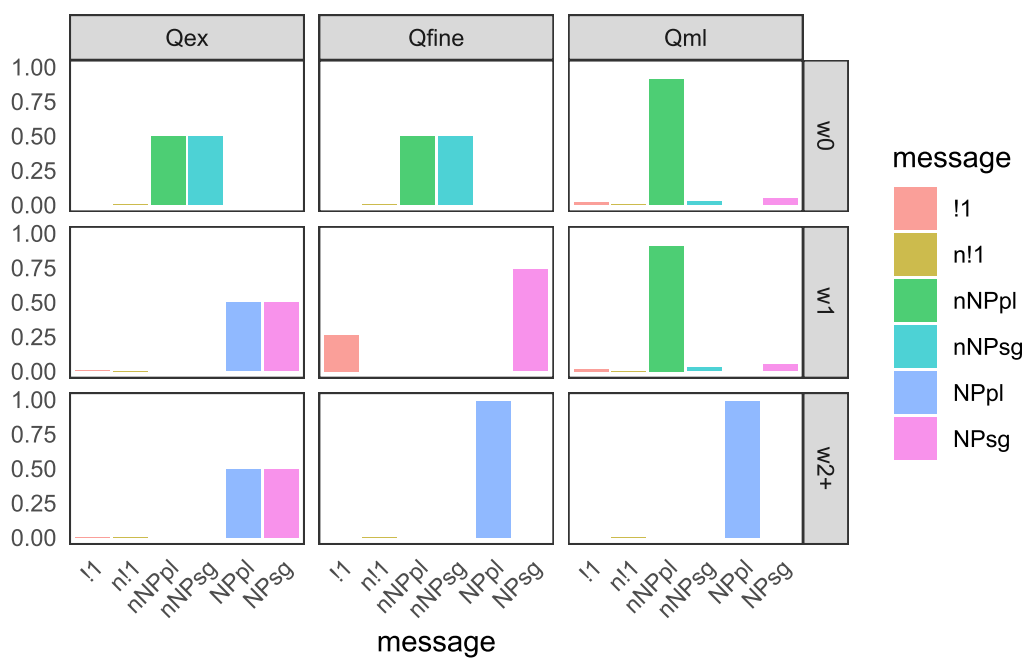
P_i_flat <- P_ip()
P_i_penalize_embedded <- P_ip(ExhExh = 1, ExhLit = 1.1, LitLit = 1.21)
# P_i_penalize_embedded <- P_ip(ExhExh = 1, ExhLit = 1.4, LitLit = 2)
# P_i_penalize_embedded <- P_ip(ExhExh = 1, ExhLit = 3, LitLit = 9)
# P_i <- P_i_penalize_embedded
P_i <- P_i_flat
P_i("iLitLitLitLit")
```

```
[1] 0.0625
```

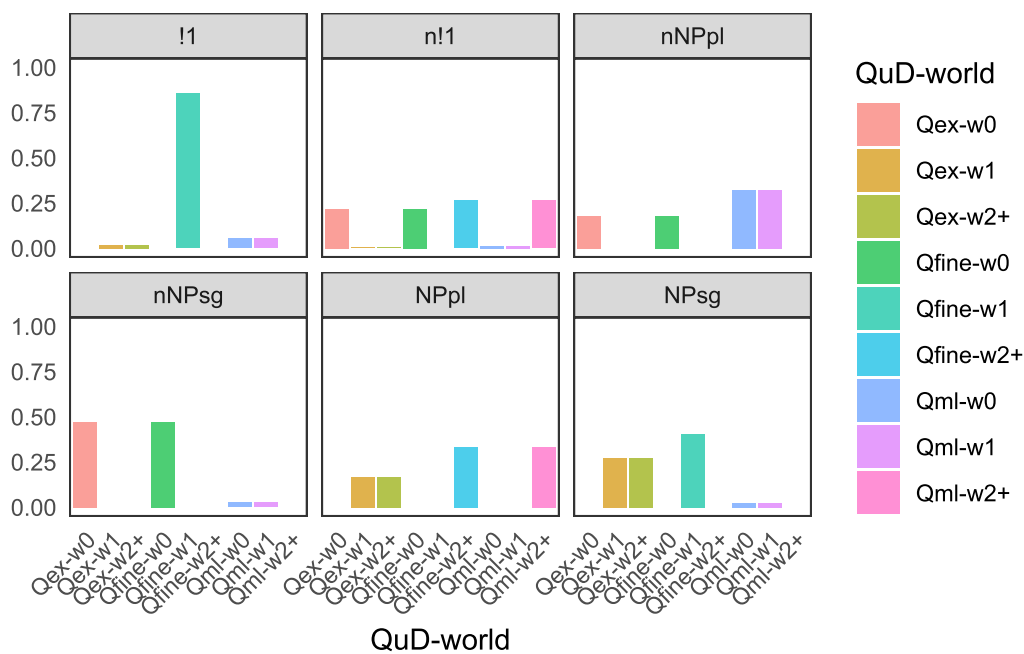
## Flat world and QuD priors

```
P_w <- P_w_flat
P_Q <- P_Q_flat

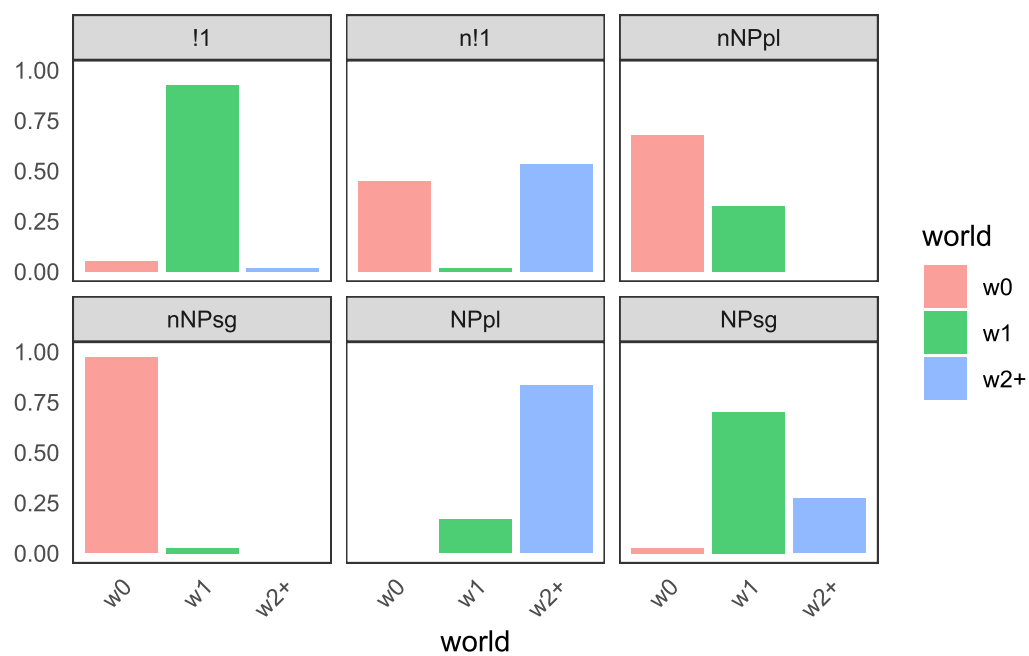
check_Sn(n)
```



check\_Ln(n)



check\_Ln\_w(n)

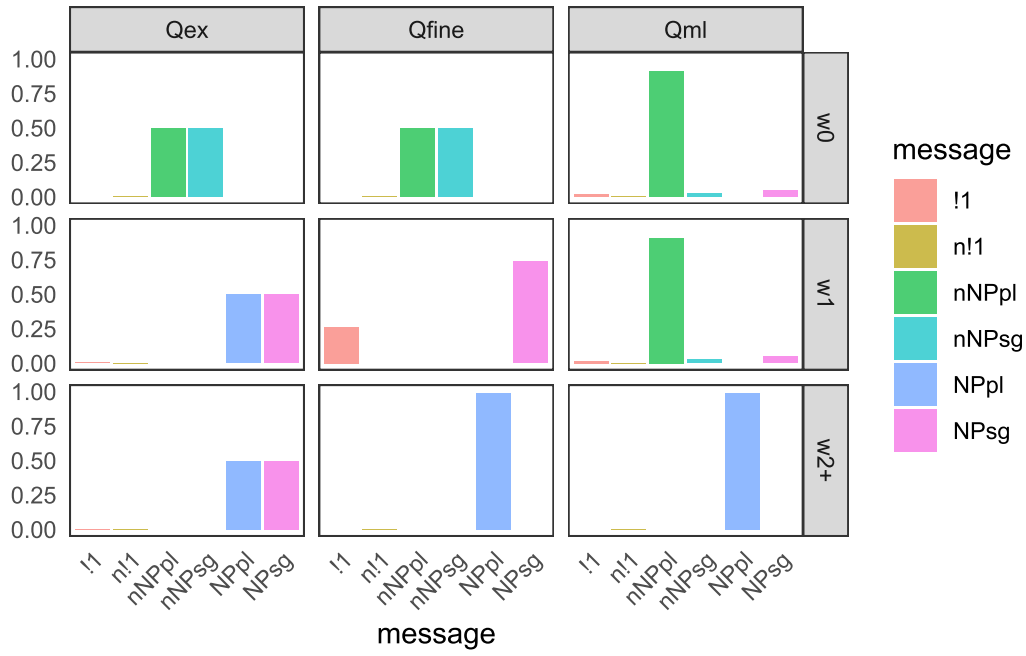


## Flat world priors, Qex bias

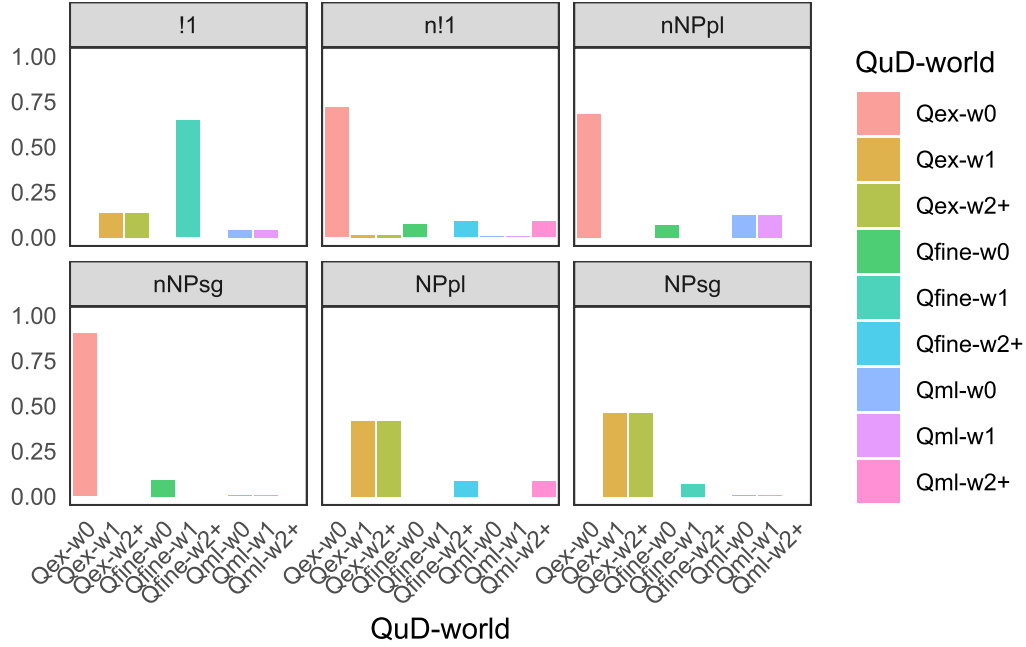
`P_w <- P_w_flat`

`P_Q <- P_Q_Qex`

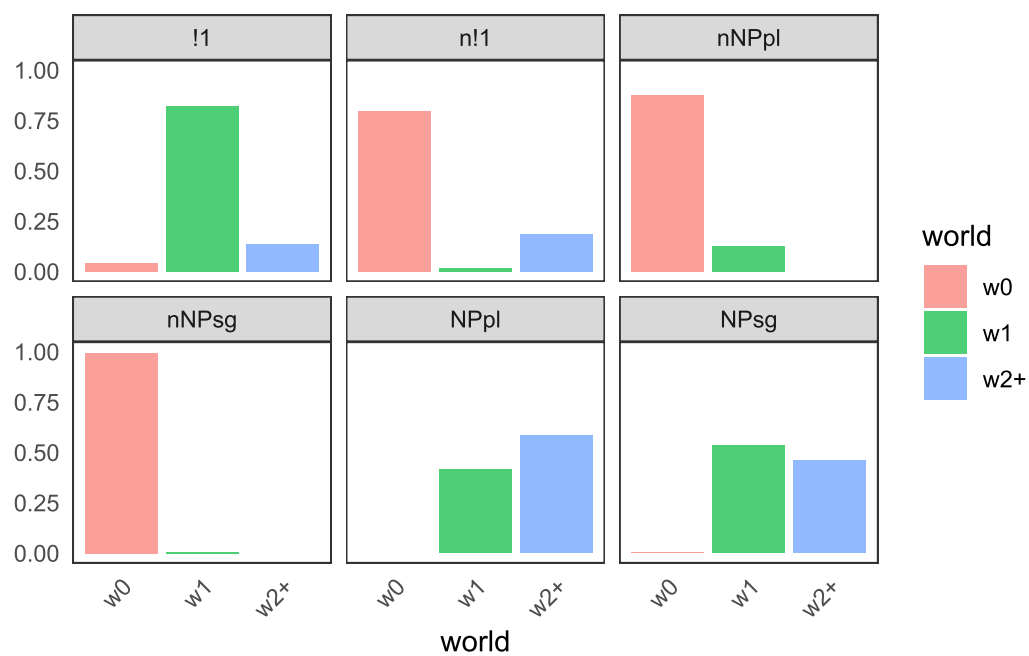
`check_Sn(n)`



check\_Ln(n)



check\_Ln\_w(n)

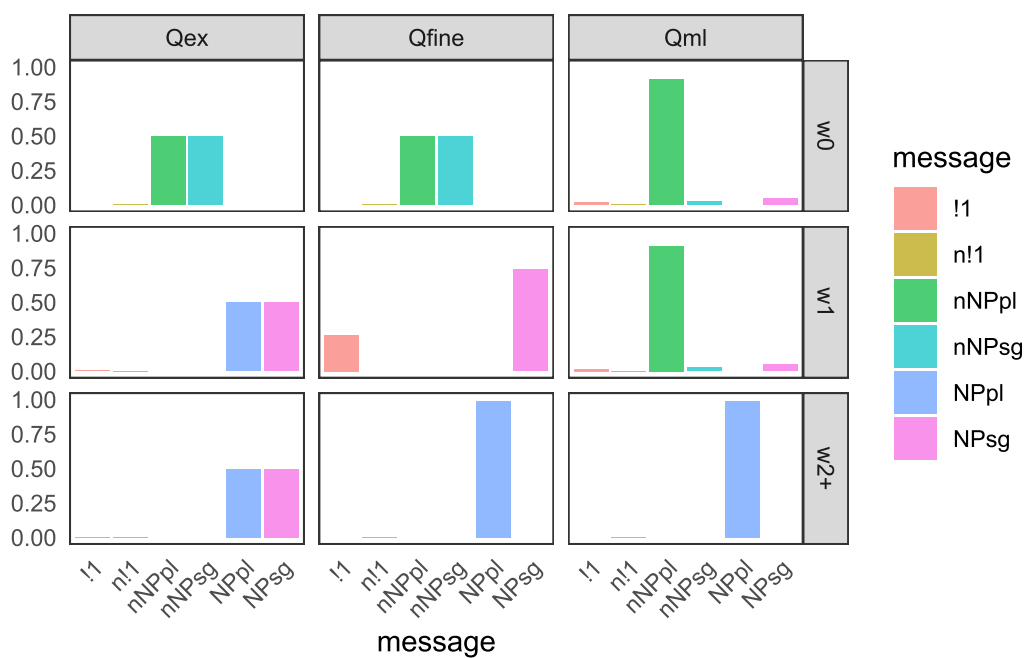


## Flat world priors, Qml bias

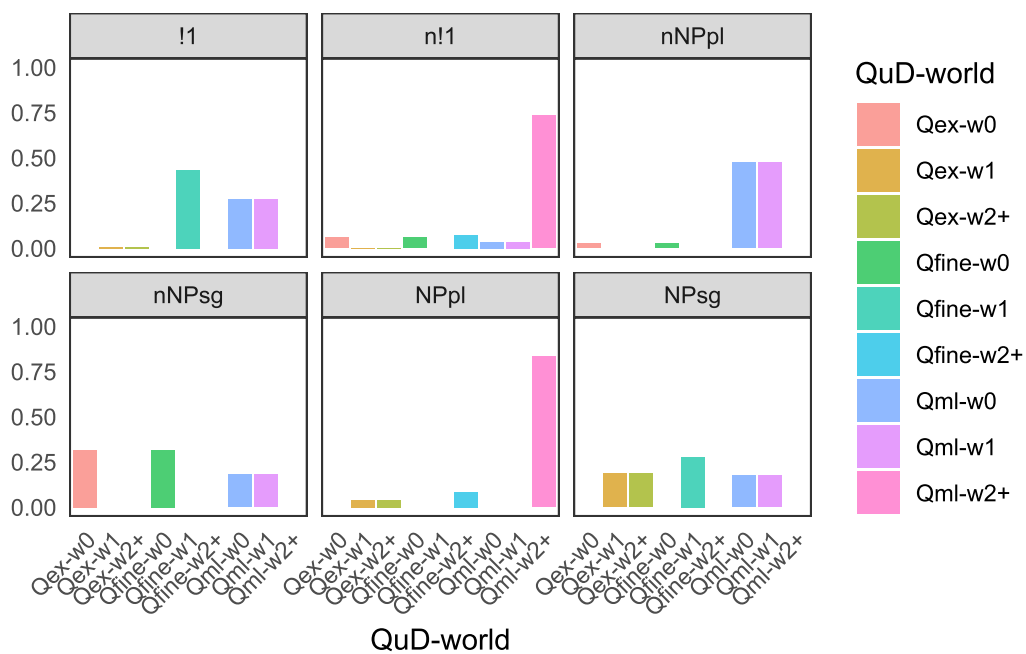
```
P_w <- P_w_flat
```

```
P_Q <- P_Q_Qml
```

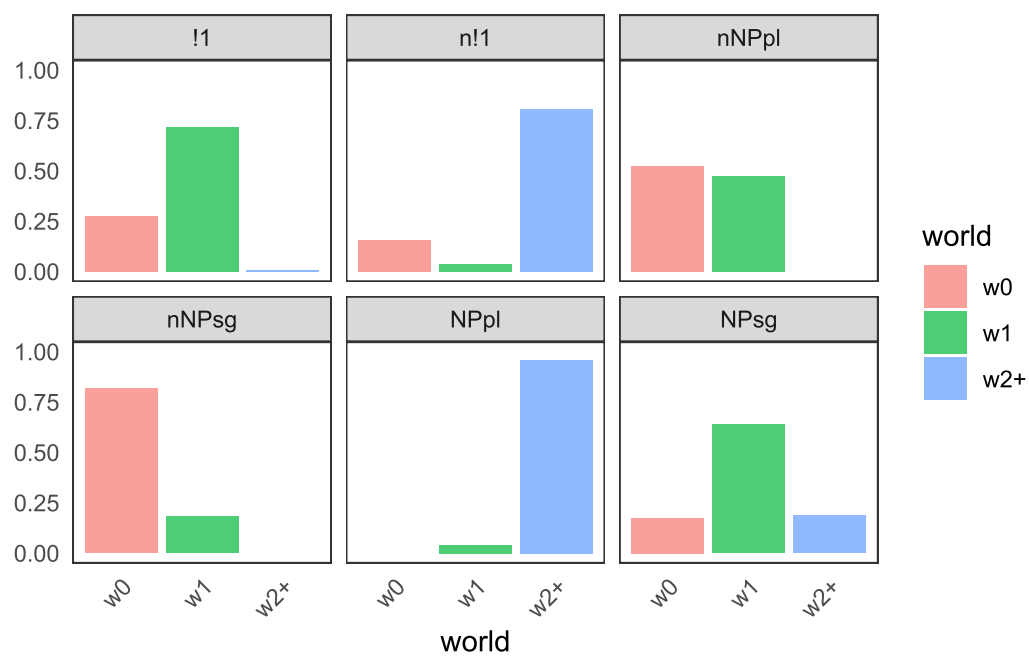
```
check_Sn(n)
```



check\_Ln(n)



check\_Ln\_w(n)

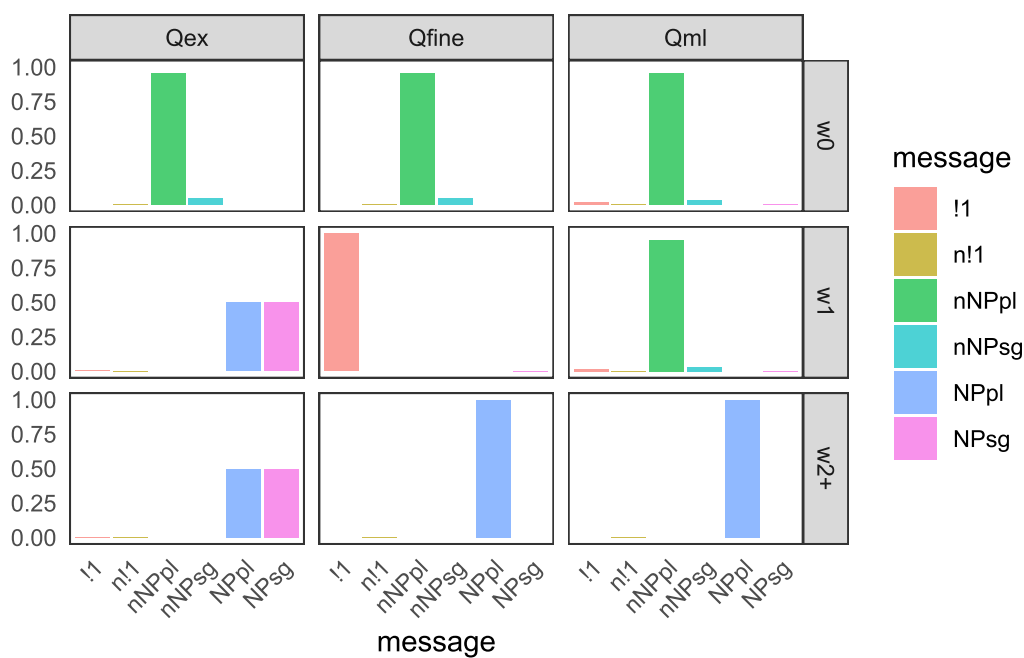


```
# check_Sn_w(2)
```

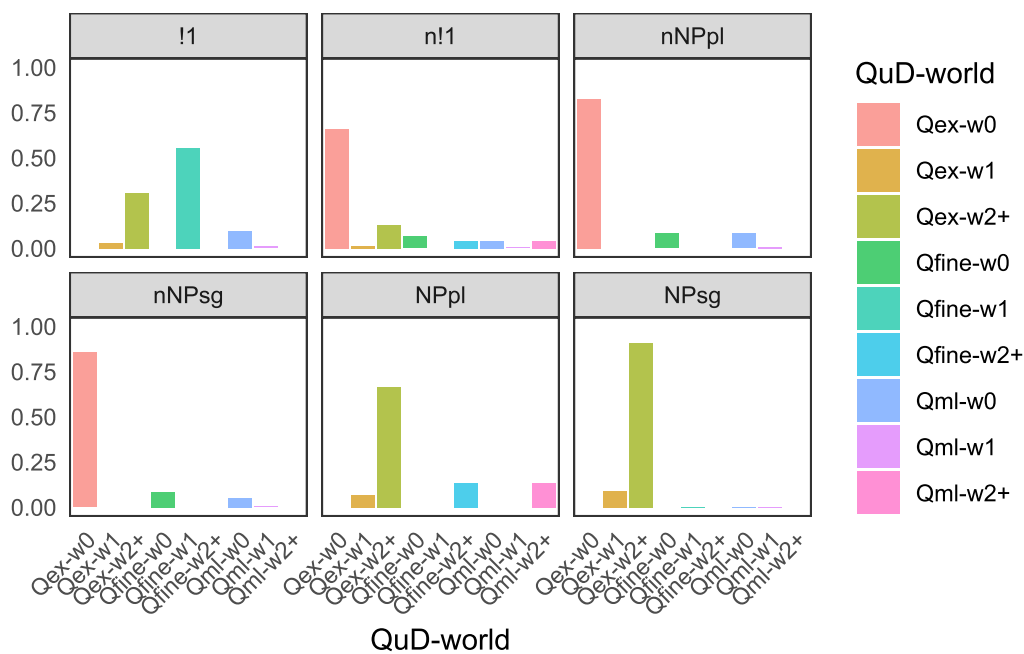
## nNPsg oddness (w1 biased against, Qex bias)

```
P_w <- P_w_sg_odd
P_Q <- P_Q_Qex
```

```
check_Sn(n)
```

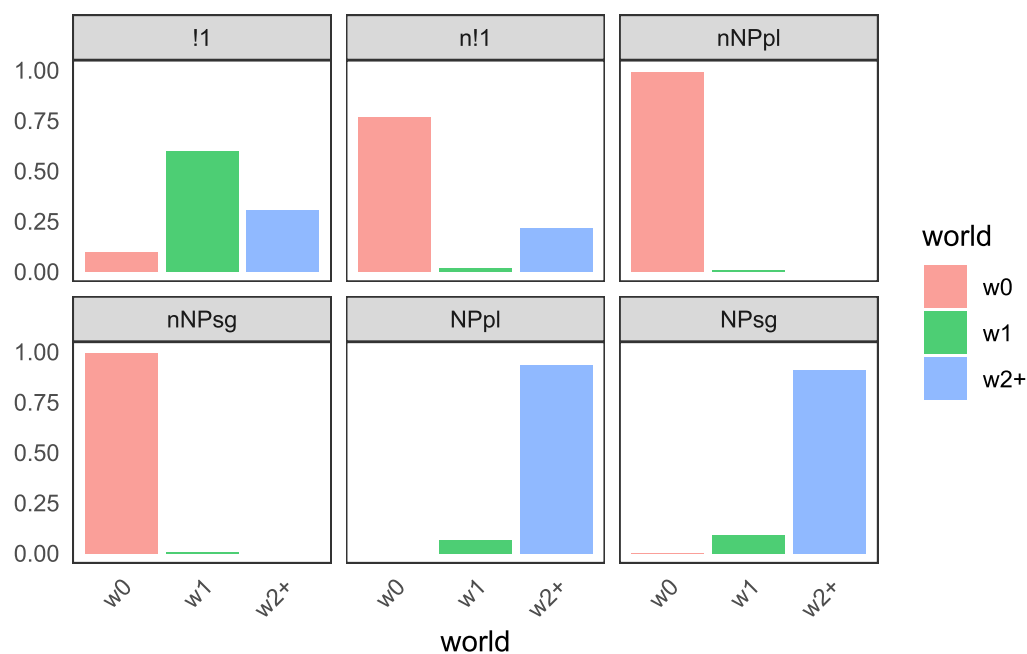


check\_Ln(n)



check\_Ln\_w(n)



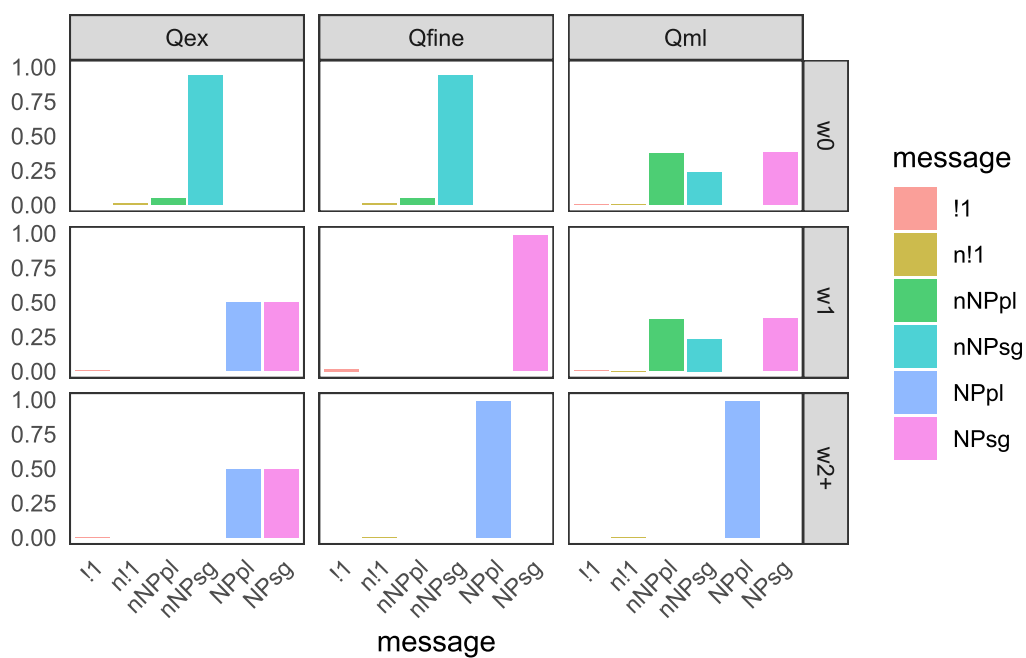


## nNPpl oddness (w2+ biased against, Qex bias)

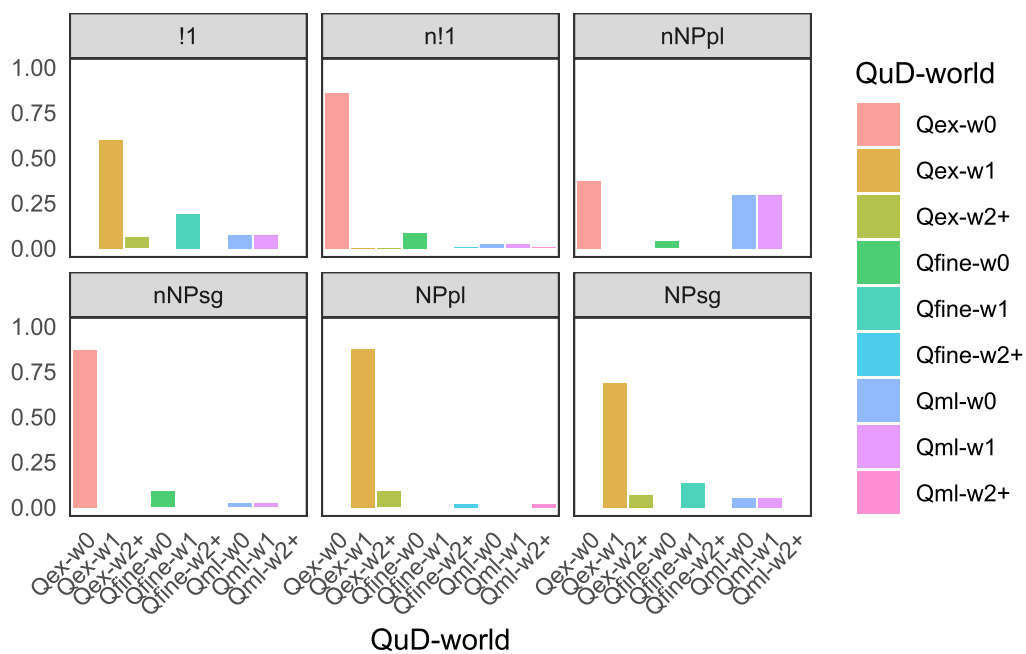
```
P_w <- P_w_pl_odd
P_Q <- P_Q_Qex
L0() %>% filter(QuD == "Qml" & world == "w0")
```

```
# A tibble: 96 × 5
  world QuD   message inter      prob
  <chr> <chr> <chr>   <chr>   <dbl>
1 w0    Qml    !1      iExhExhExhExh  0
2 w0    Qml    !1      iExhExhExhLit  0
3 w0    Qml    !1      iExhExhLitExh  0
4 w0    Qml    !1      iExhExhLitLit  0
5 w0    Qml    !1      iExhLitExhExh  0
6 w0    Qml    !1      iExhLitExhLit  0
7 w0    Qml    !1      iExhLitLitExh  0
8 w0    Qml    !1      iExhLitLitLit  0
9 w0    Qml    !1      iLitExhExhExh  0
10 w0   Qml    !1      iLitExhExhLit  0
# i 86 more rows
```

```
check_Sn(n)
```



check\_Ln(n)



check\_Ln\_w(n)

