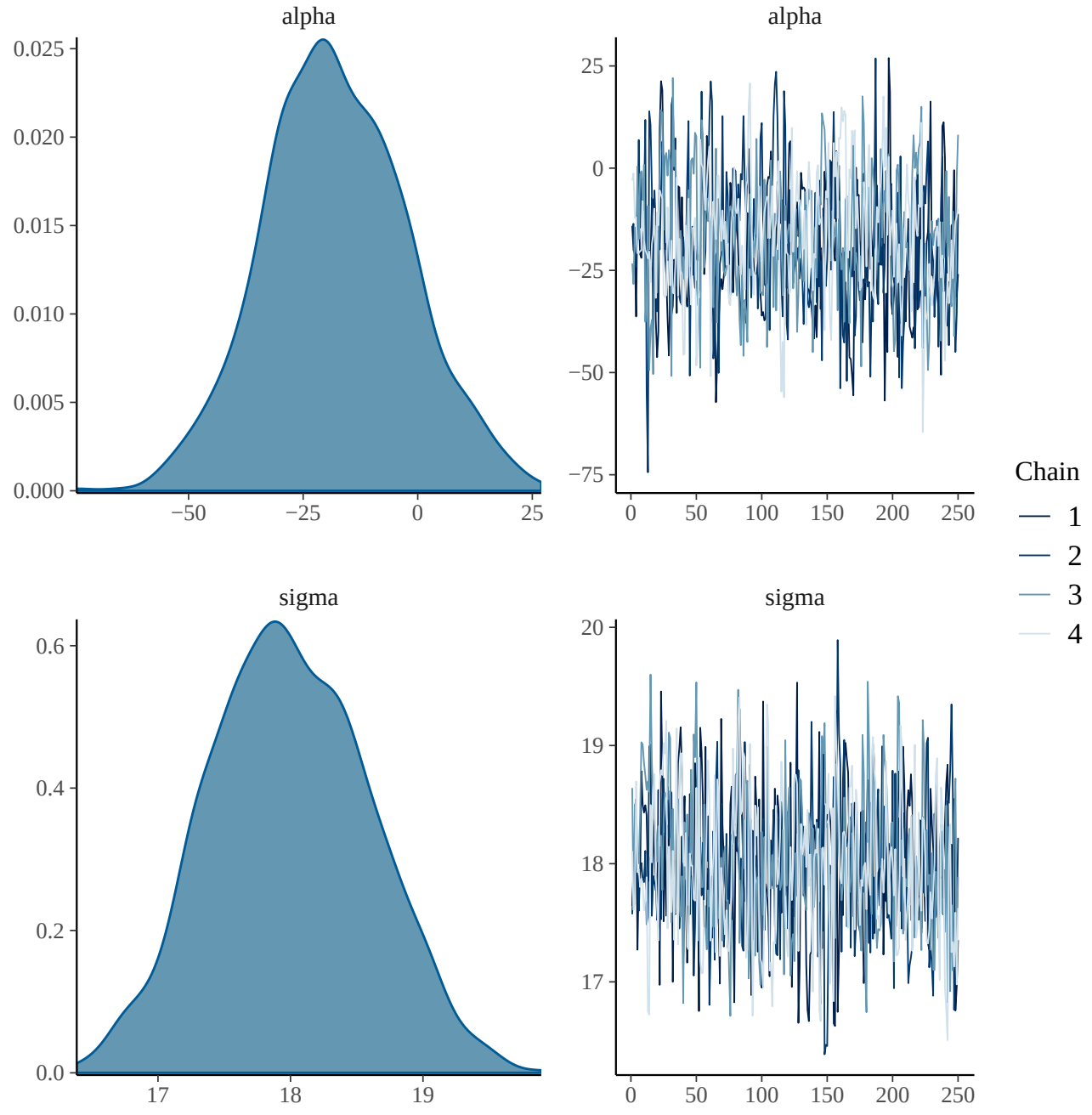
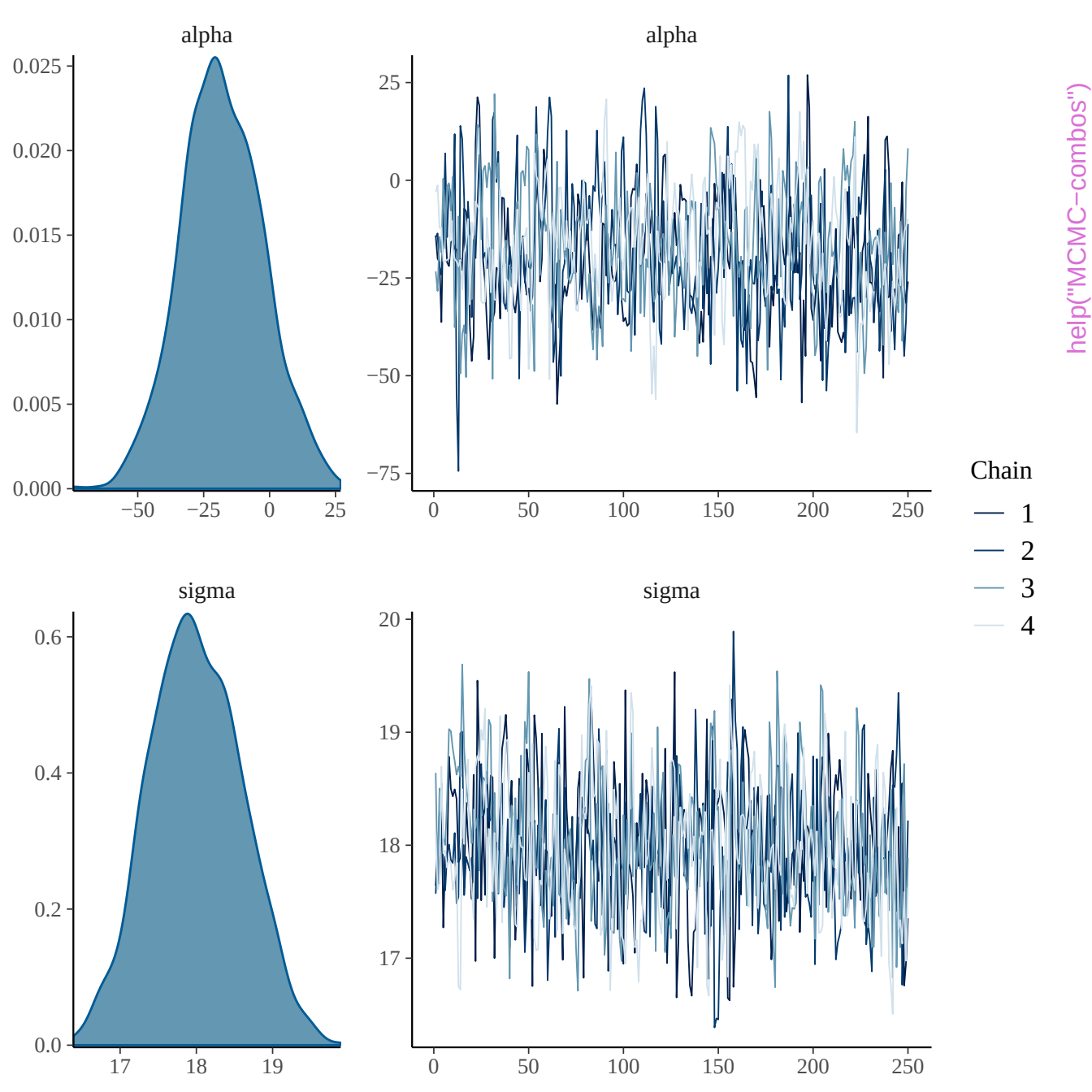
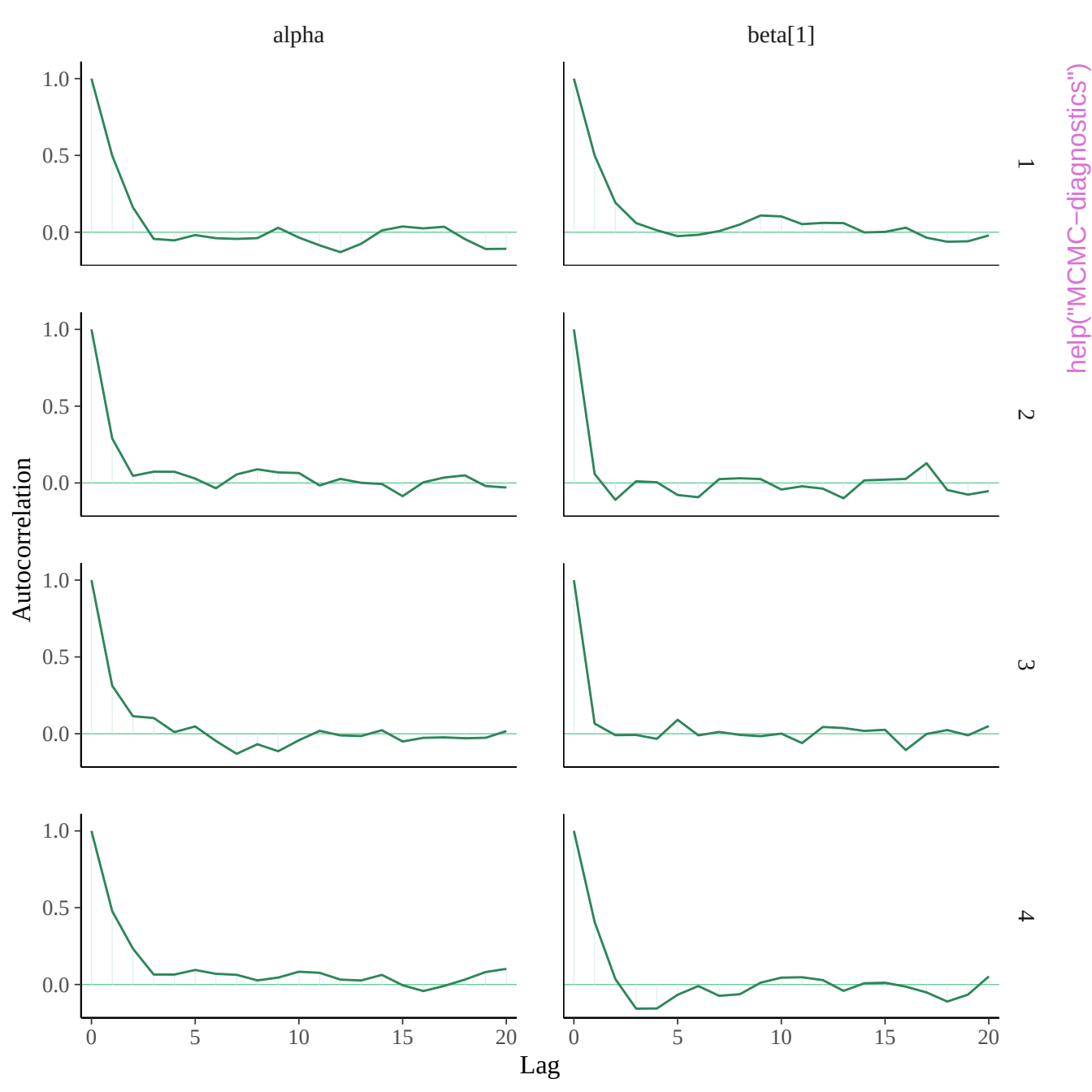
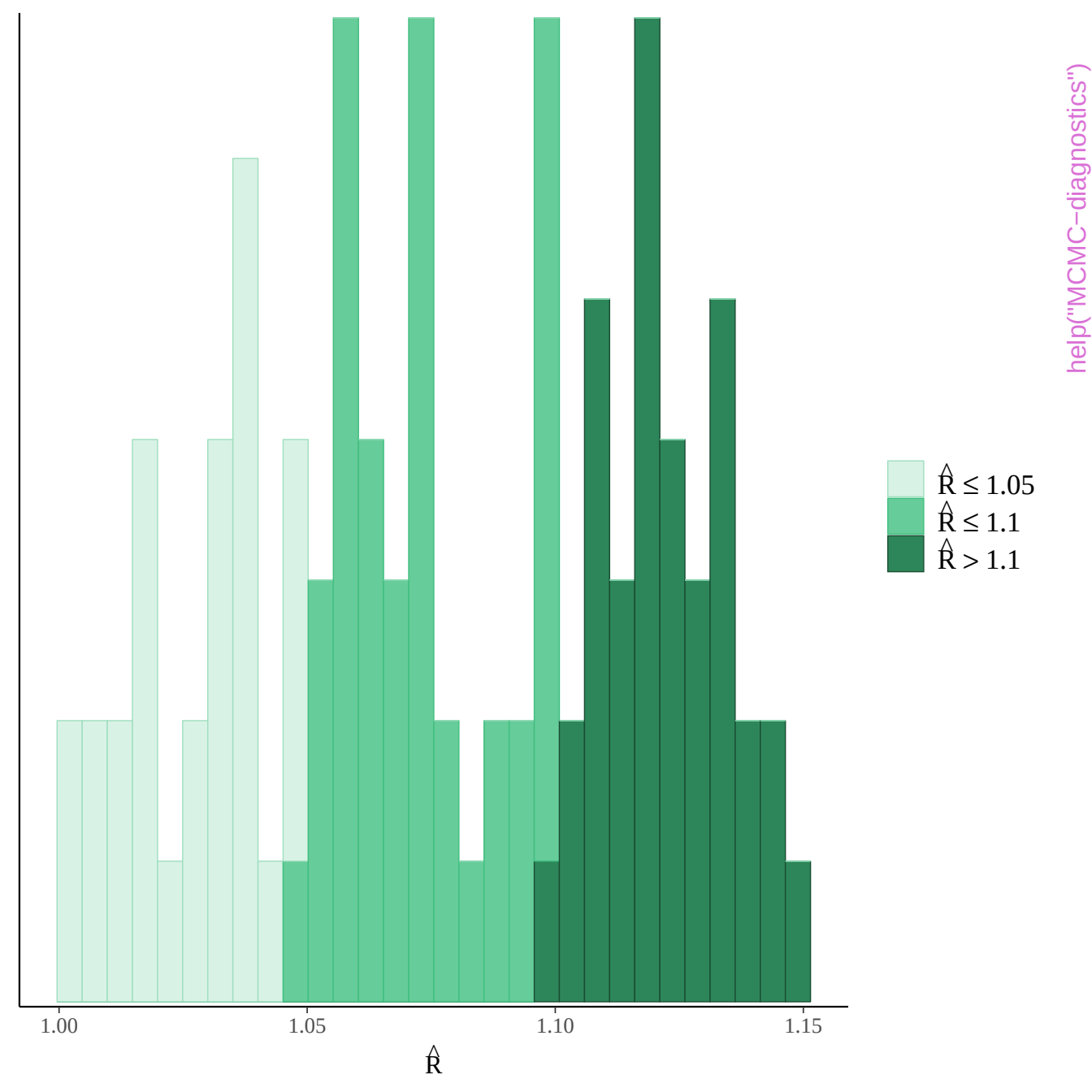
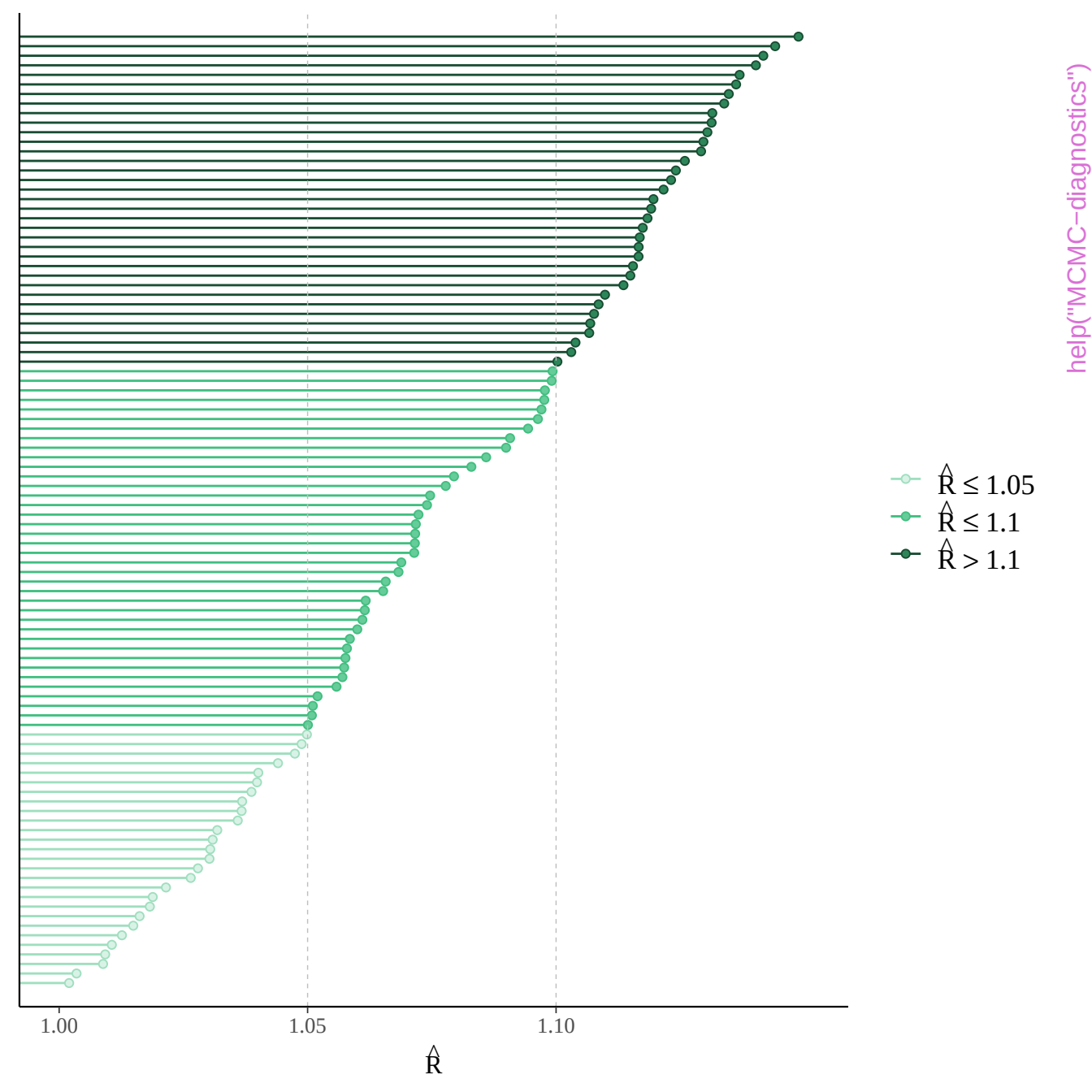
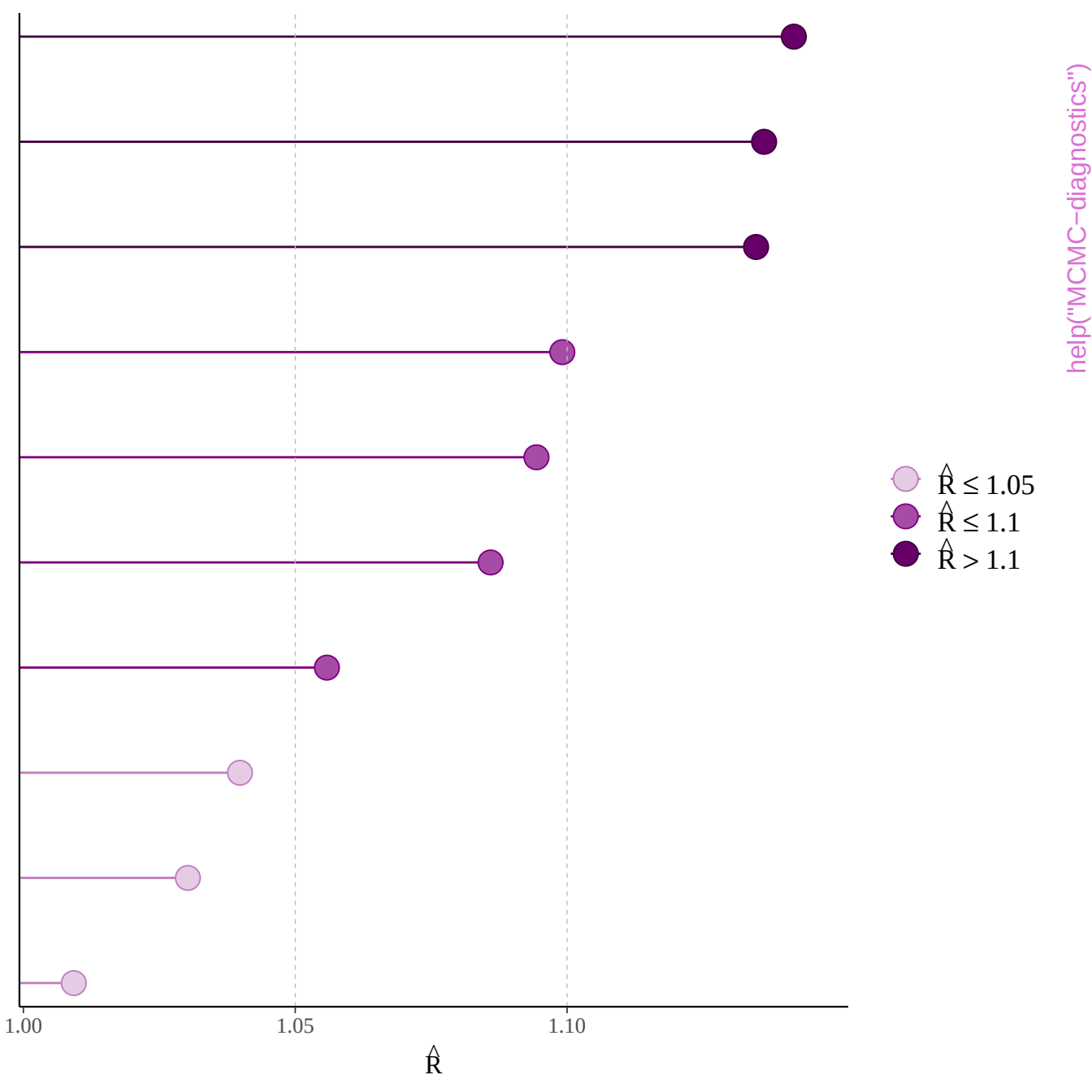

alpha
alpha
sigma
sigma
Chain
1
2
3
4
help("MCMC-combos")

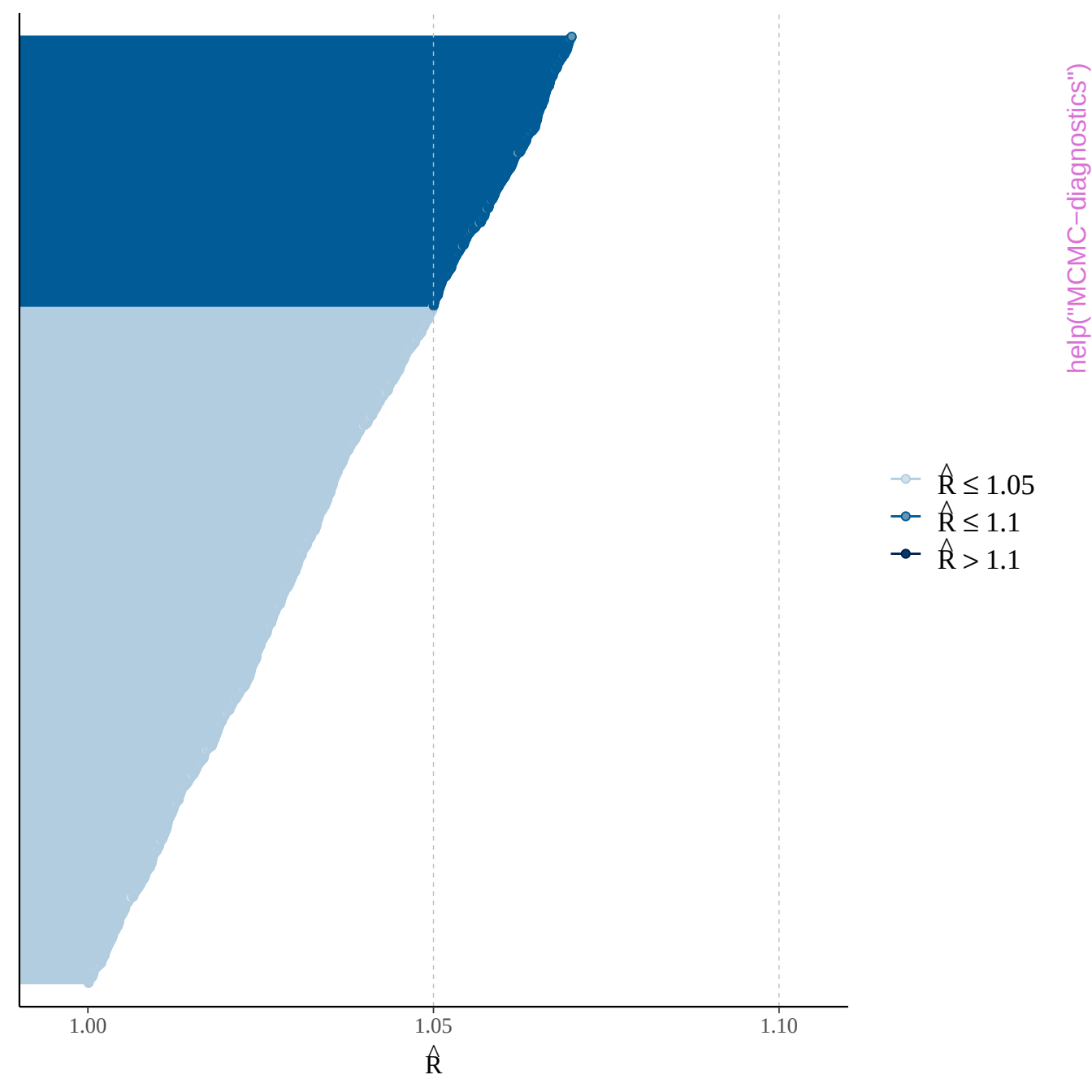

alpha
alpha
sigma
sigma
0.025
0.020
0.015
0.010
0.005
0.000
−50
−25
0
25
0
50
100
150
200
250
−75
−50
−25
0
25
0.0
0.2
0.4
0.6
17
18
19
20
Chain
1
2
3
4
help("MCMC−combos")

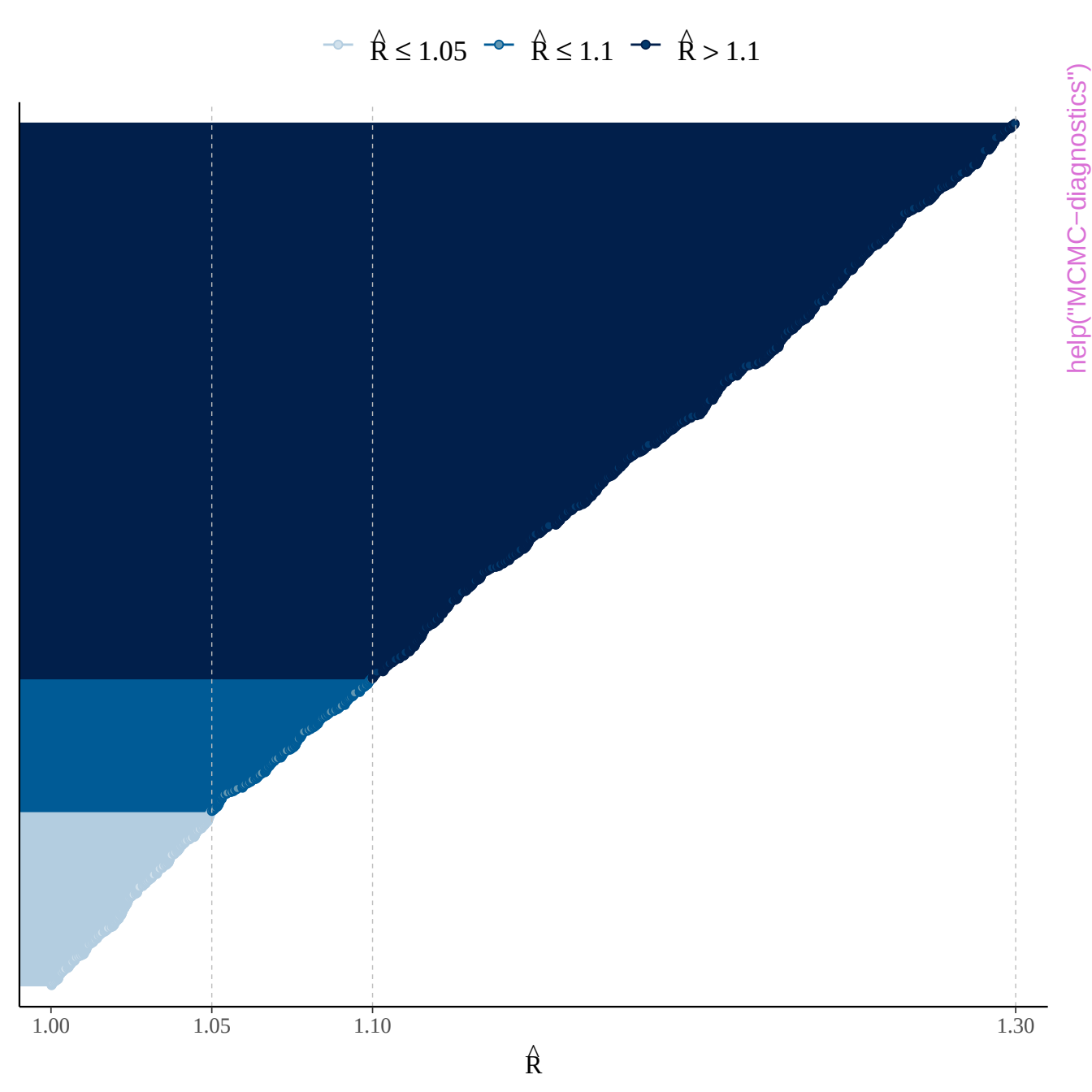

alpha
beta[1]
1
2
3
4
Autocorrelation
1.0
0.5
0.0
0
5
10
15
20
Lag
help("MCMC-diagnostics")

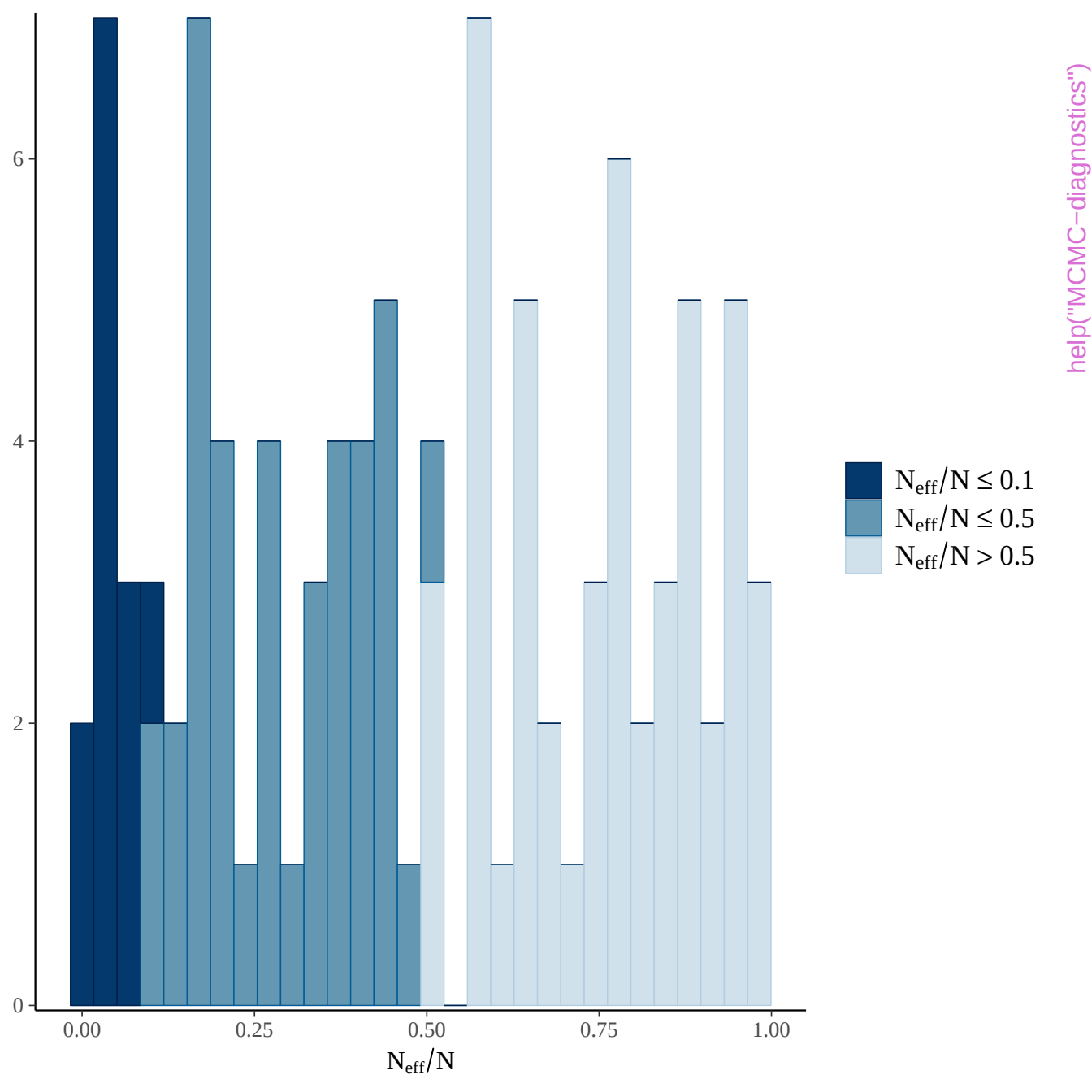

help("MCMC-diagnostics")
$\hat{R} \leq 1.05$
$\hat{R} \leq 1.1$
$\hat{R} > 1.1$
1.00
1.05
1.10
1.15
$\hat{R}$

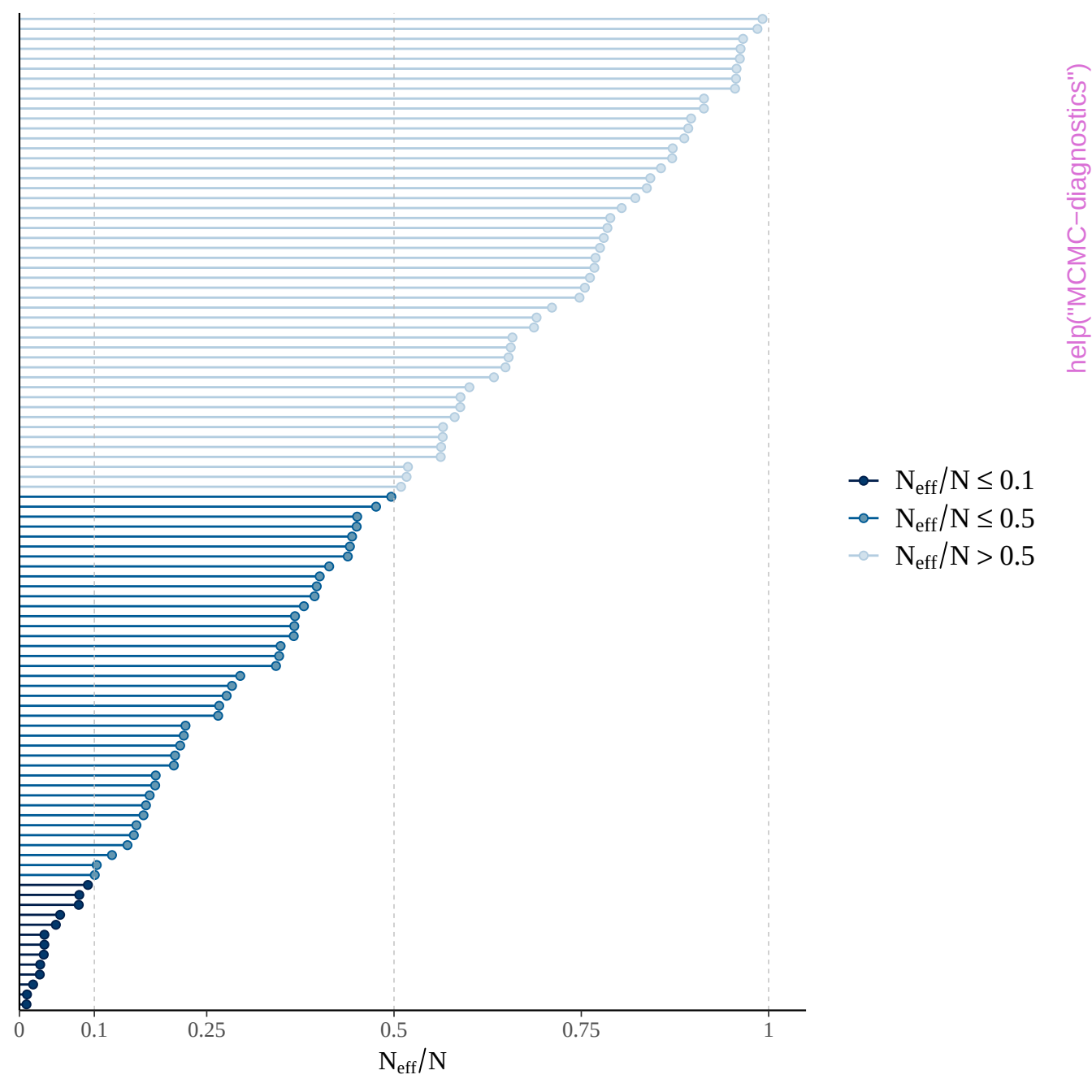

help("MCMC-diagnostics")
$\hat{R} \leq 1.05$
$\hat{R} \leq 1.1$
$\hat{R} > 1.1$
1.00
1.05
1.10
$\hat{R}$

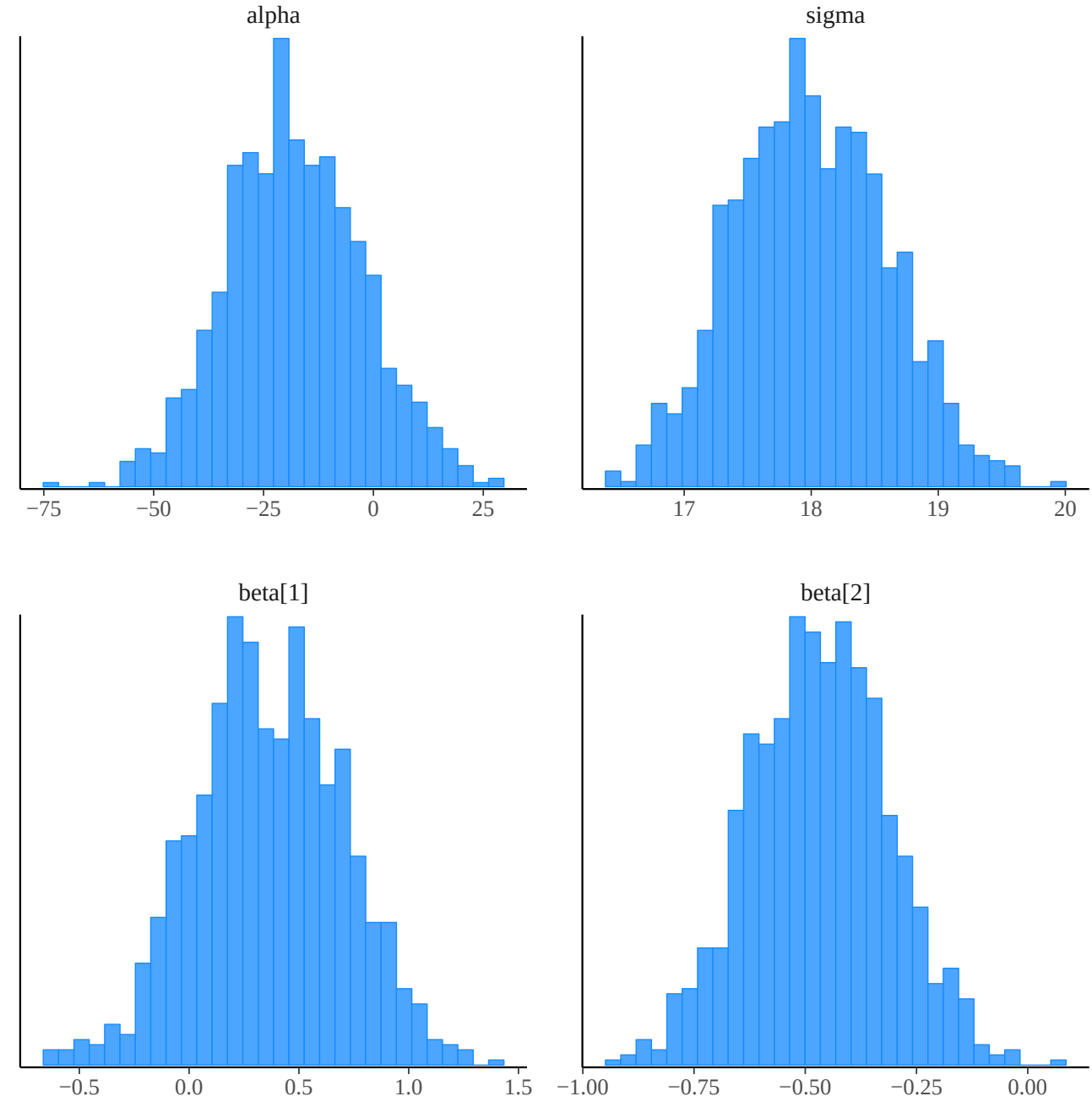

help("MCMC-diagnostics")
$\hat{R} \leq 1.05$
$\hat{R} \leq 1.1$
$\hat{R} > 1.1$
1.00
1.05
1.10
$\hat{R}$

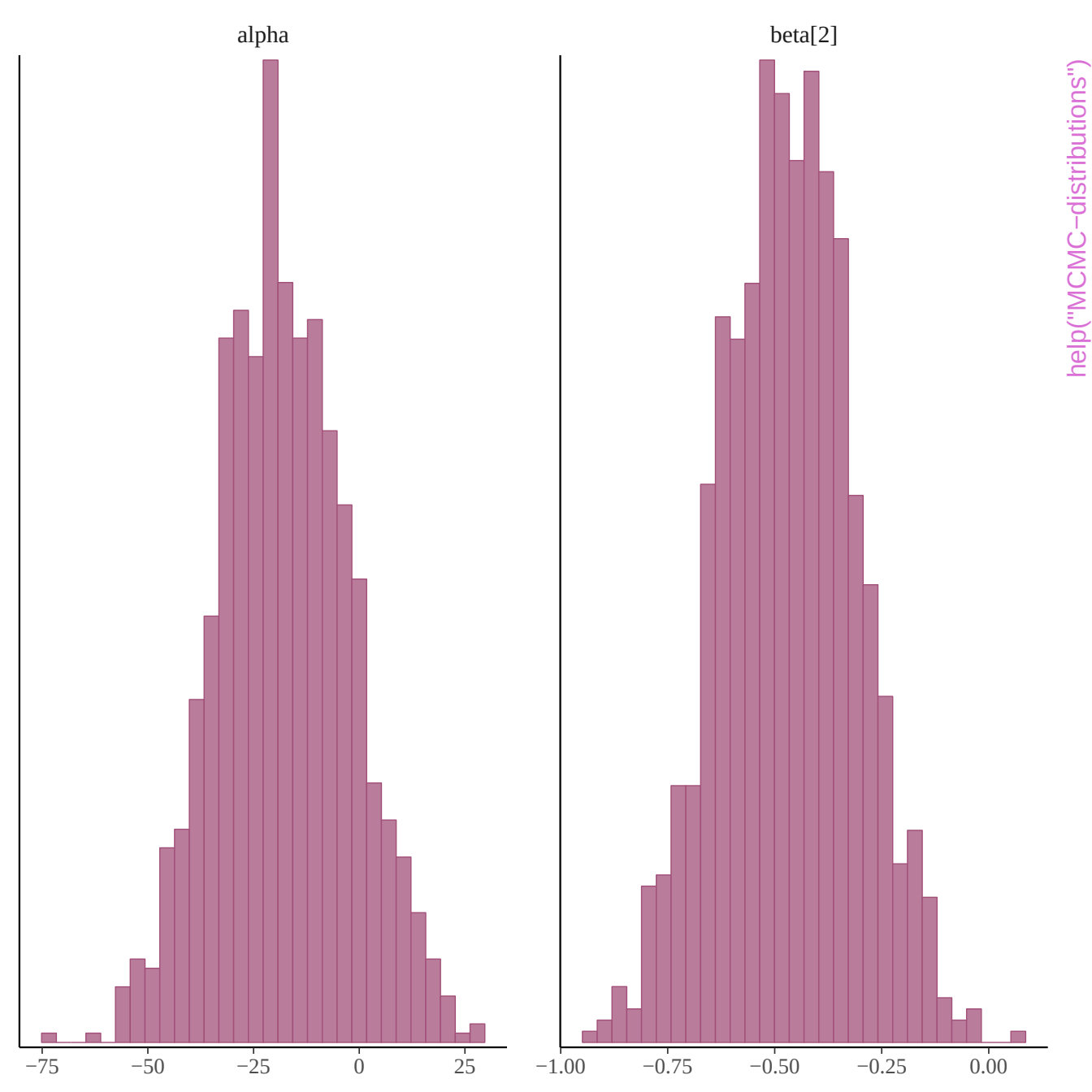

help("MCMC-diagnostics")
$\hat{R} \leq 1.05$
$\hat{R} \leq 1.1$
$\hat{R} > 1.1$
1.00
1.05
1.10
$\hat{R}$

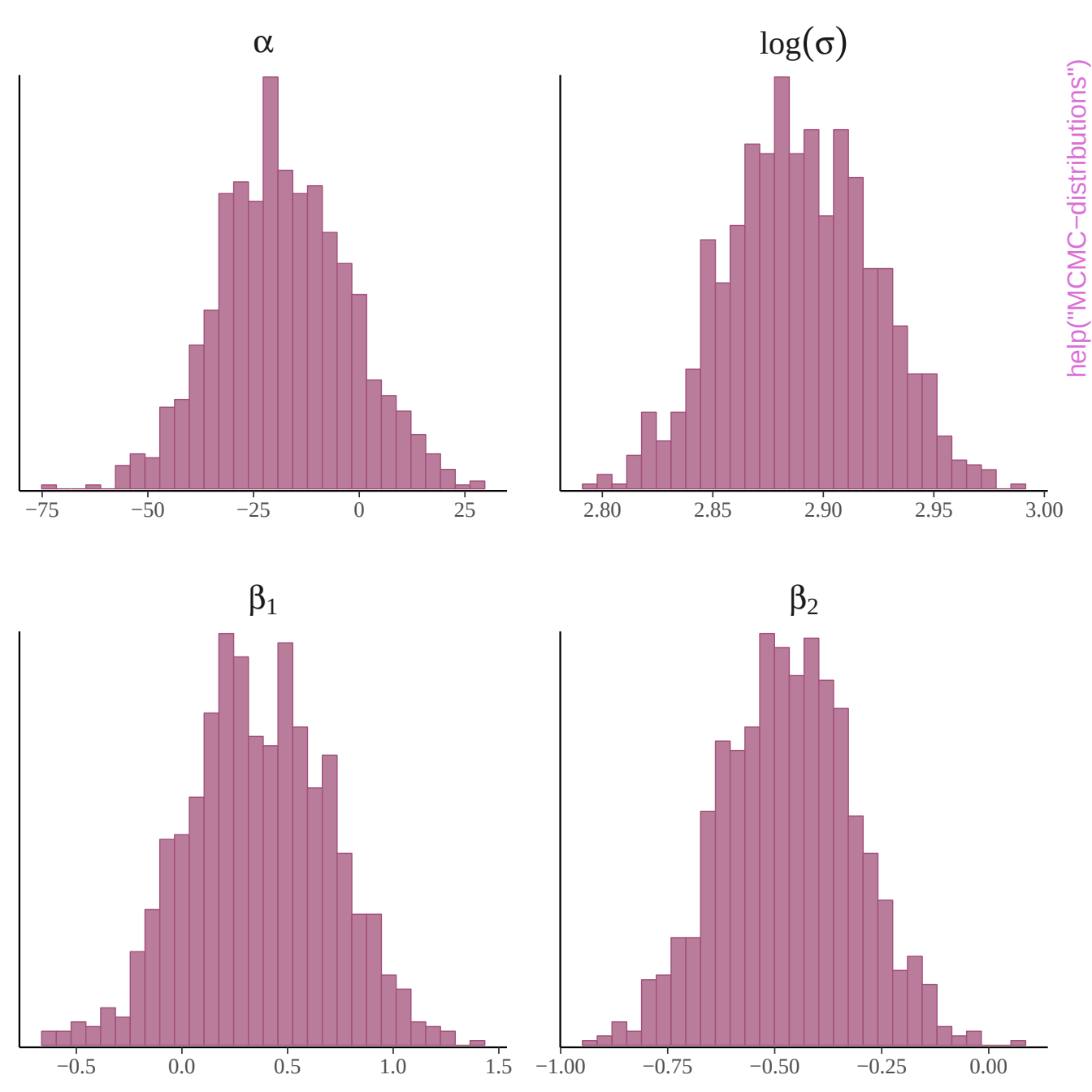

$\hat{R} \leq 1.05$
$\hat{R} \leq 1.1$
$\hat{R} > 1.1$
help("MCMC−diagnostics")
1.00
1.05
1.10
1.30
$\hat{R}$

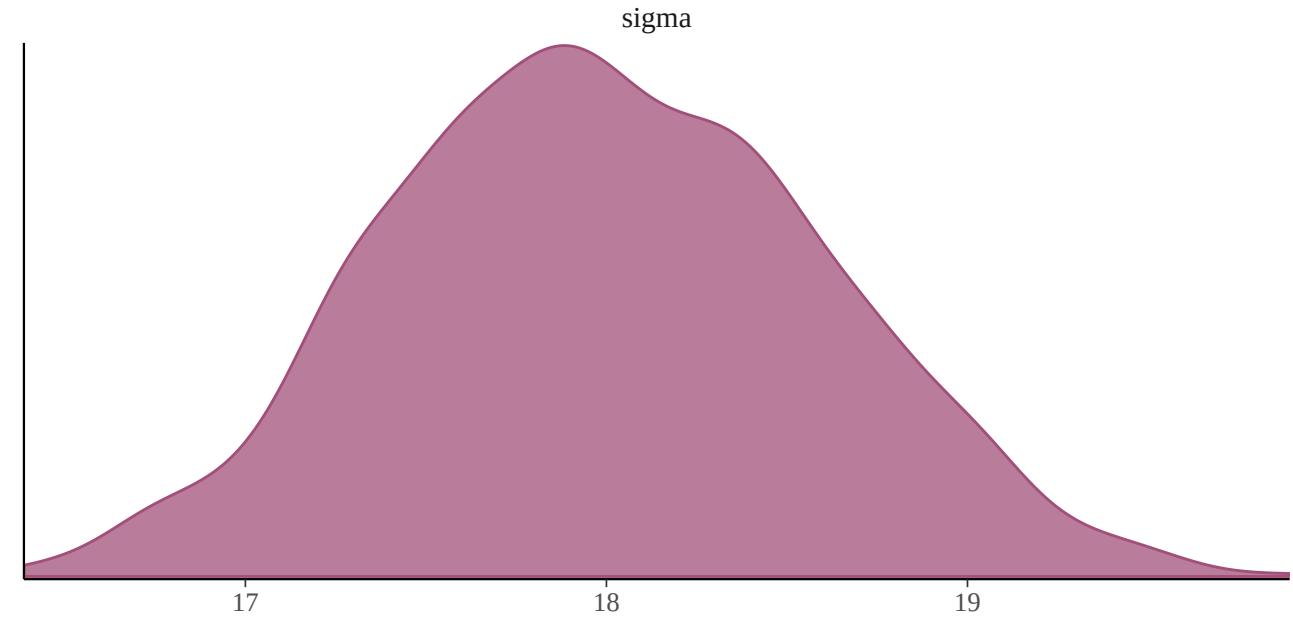

help("MCMC-diagnostics")
$N_{eff}/N \leq 0.1$
$N_{eff}/N \leq 0.5$
$N_{eff}/N > 0.5$
0
2
4
6
0.00
0.25
0.50
0.75
1.00
N_{eff}/N

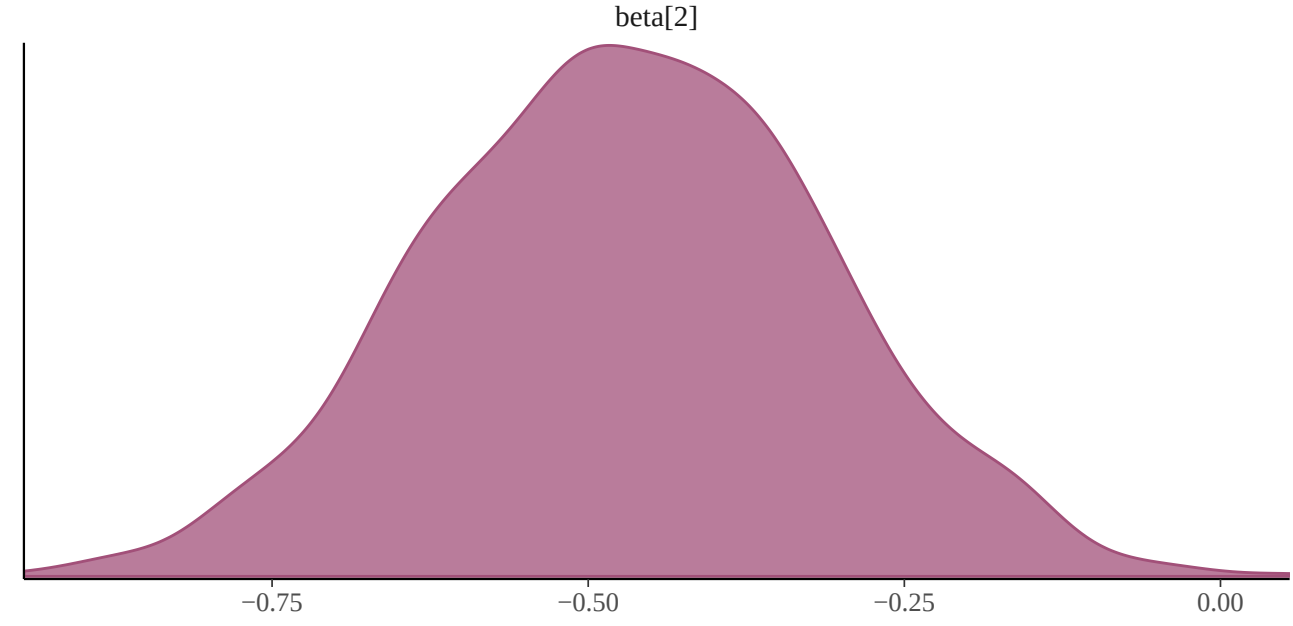

0
0.1
0.25
0.5
0.75
1
N_{eff}/N
$N_{eff}/N \leq 0.1$
$N_{eff}/N \leq 0.5$
$N_{eff}/N > 0.5$
help("MCMC-diagnostics")


alpha
−75
−50
−25
0
25
sigma
17
18
19
20
beta[1]
−0.5
0.0
0.5
1.0
1.5
beta[2]
−1.00
−0.75
−0.50
−0.25
0.00
help("MCMC−distributions")

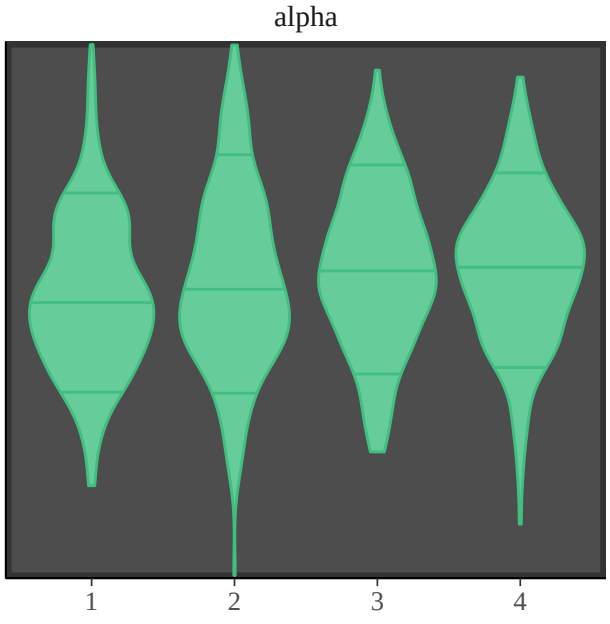

alpha
beta[2]
−75
−50
−25
0
25
−1.00
−0.75
−0.50
−0.25
0.00
help("MCMC−distributions")

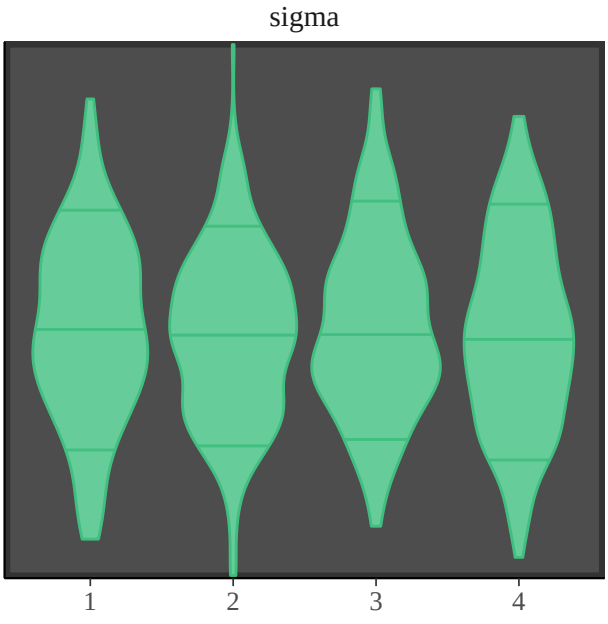

α
log(σ)
β1
β2
help("MCMC−distributions")
−75
−50
−25
0
25
2.80
2.85
2.90
2.95
3.00
−0.5
0.0
0.5
1.0
1.5
−1.00
−0.75
−0.50
−0.25
0.00



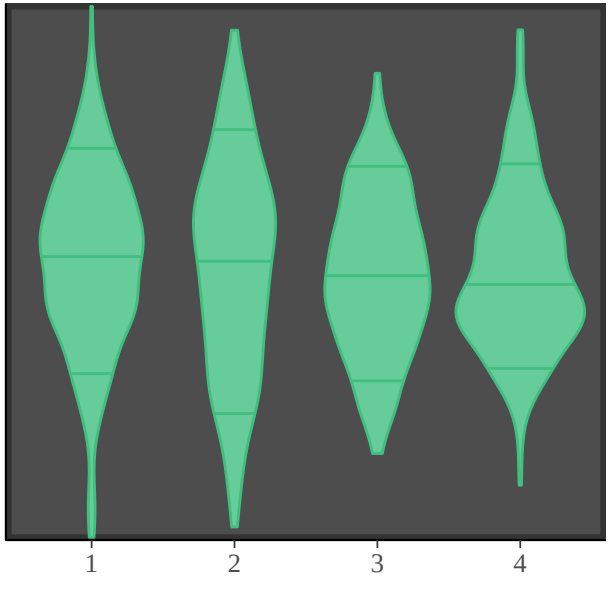


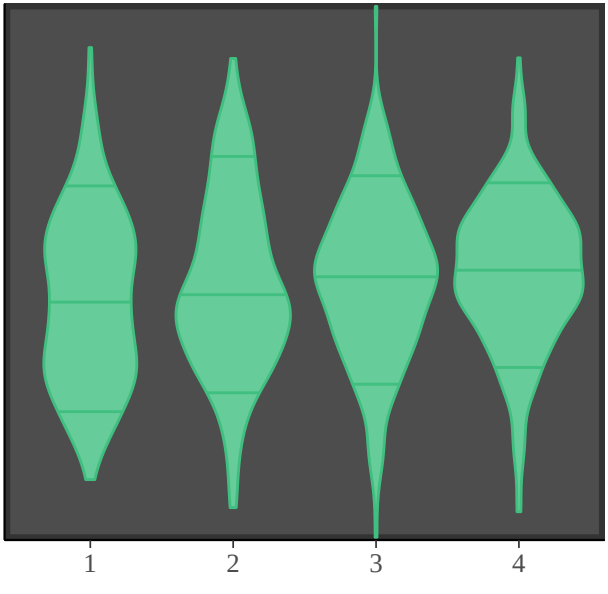
help("MCMC−distributions")

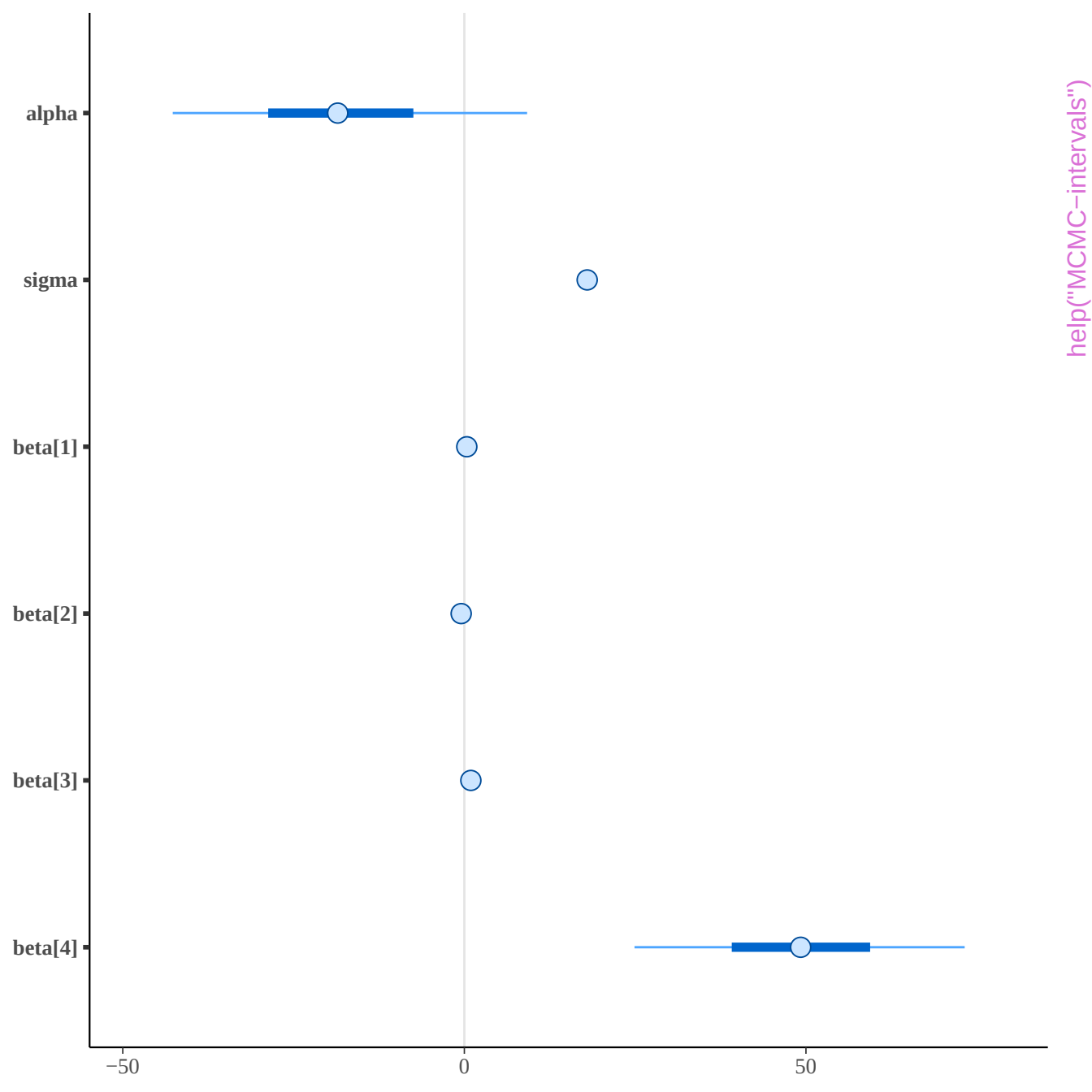


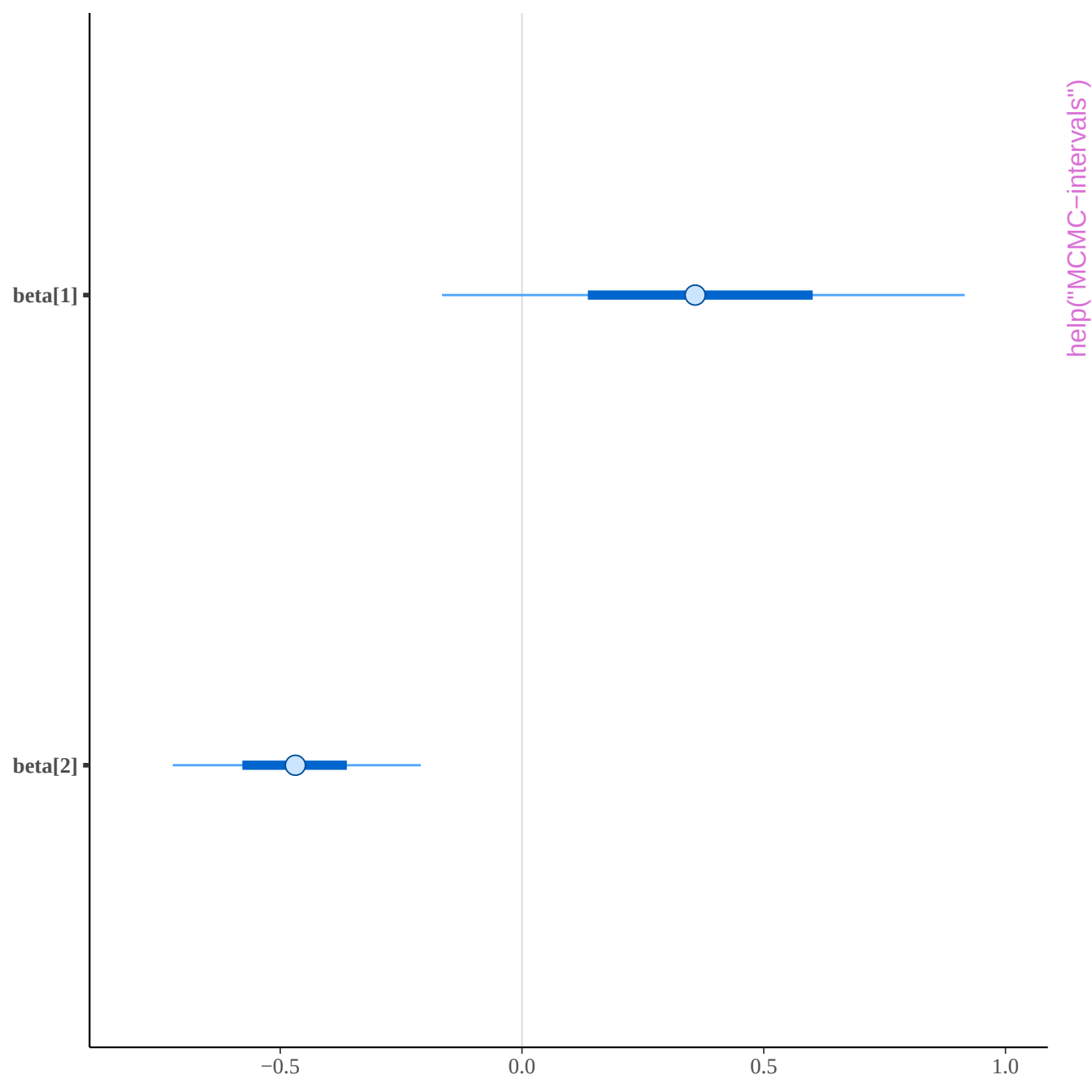


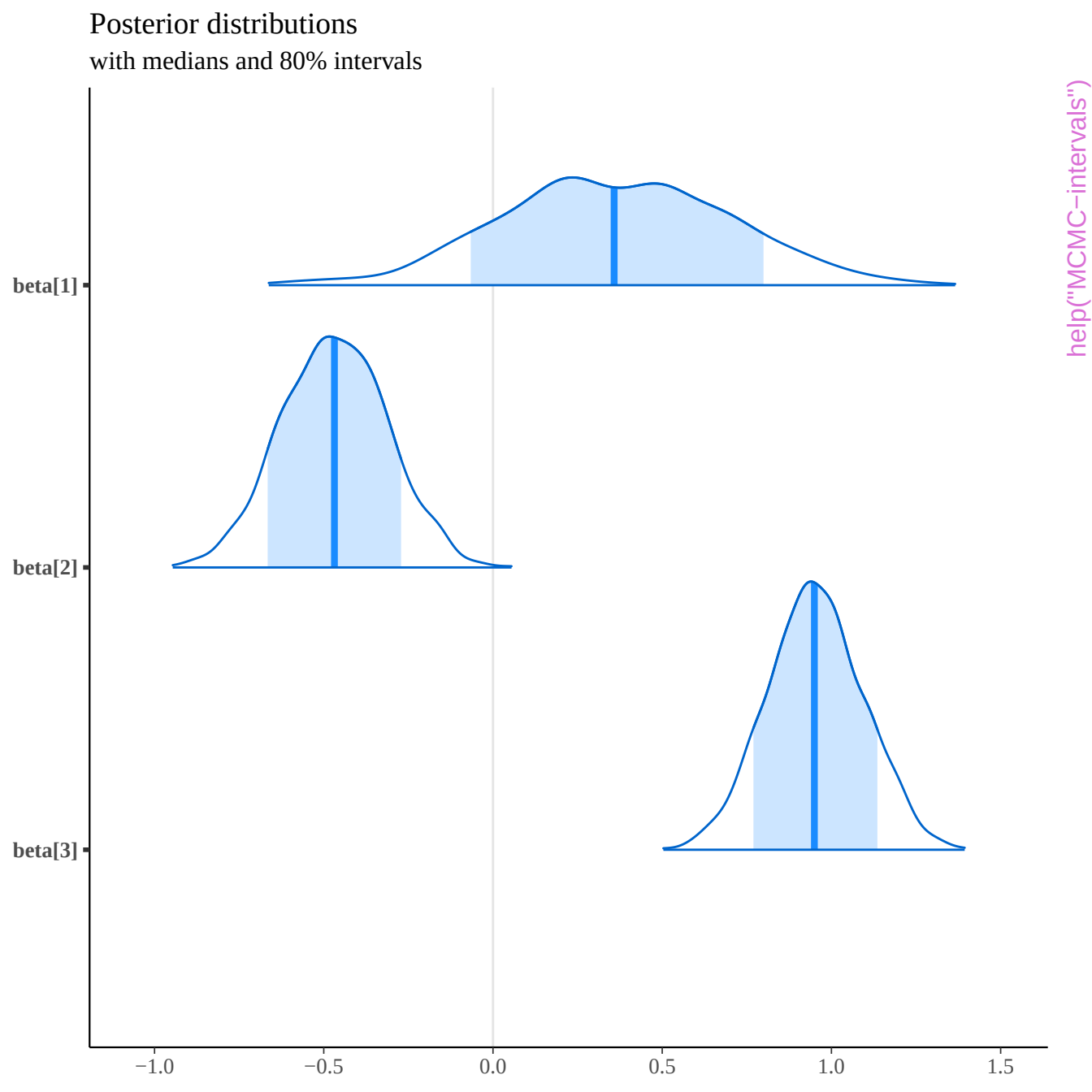
help("MCMC-distributions")

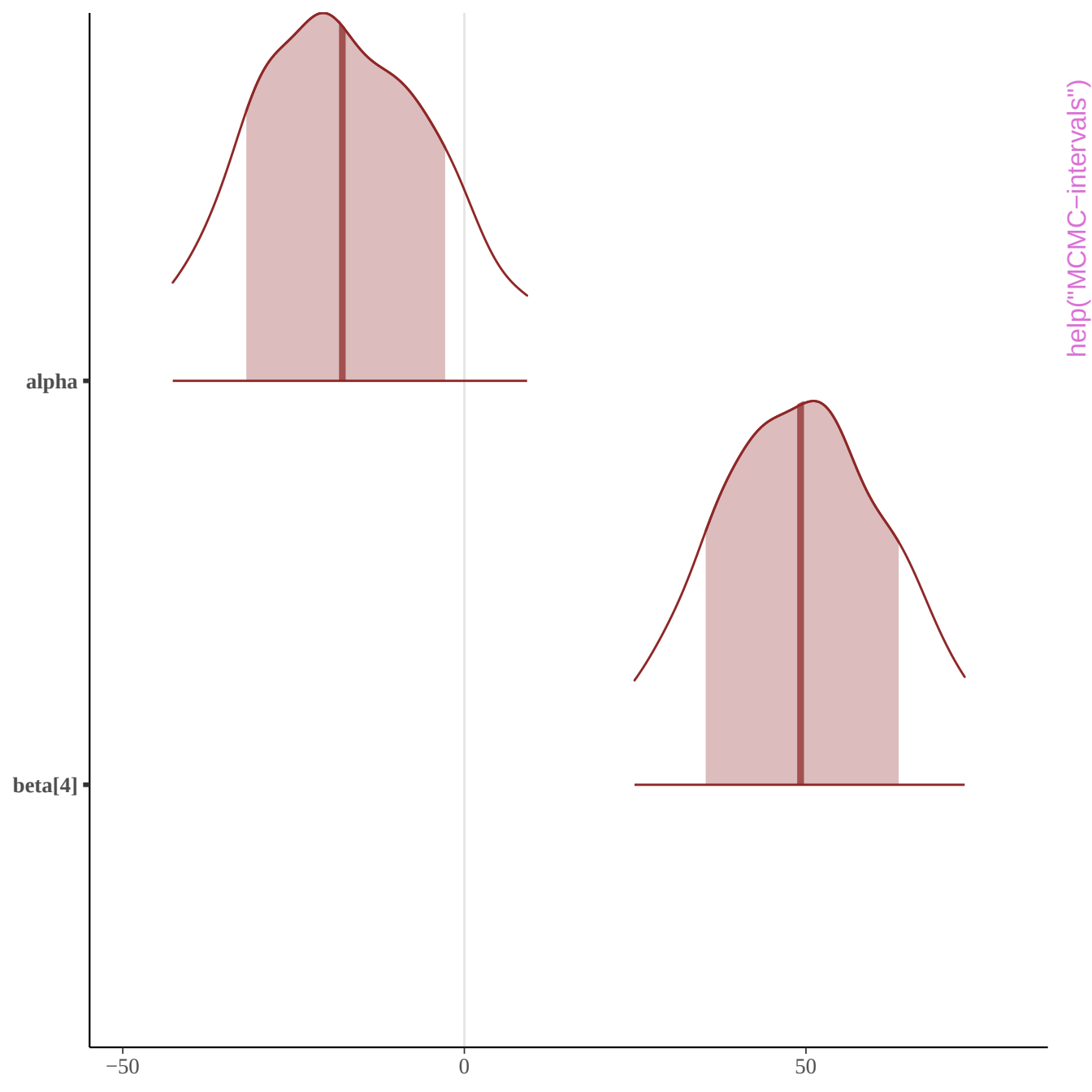


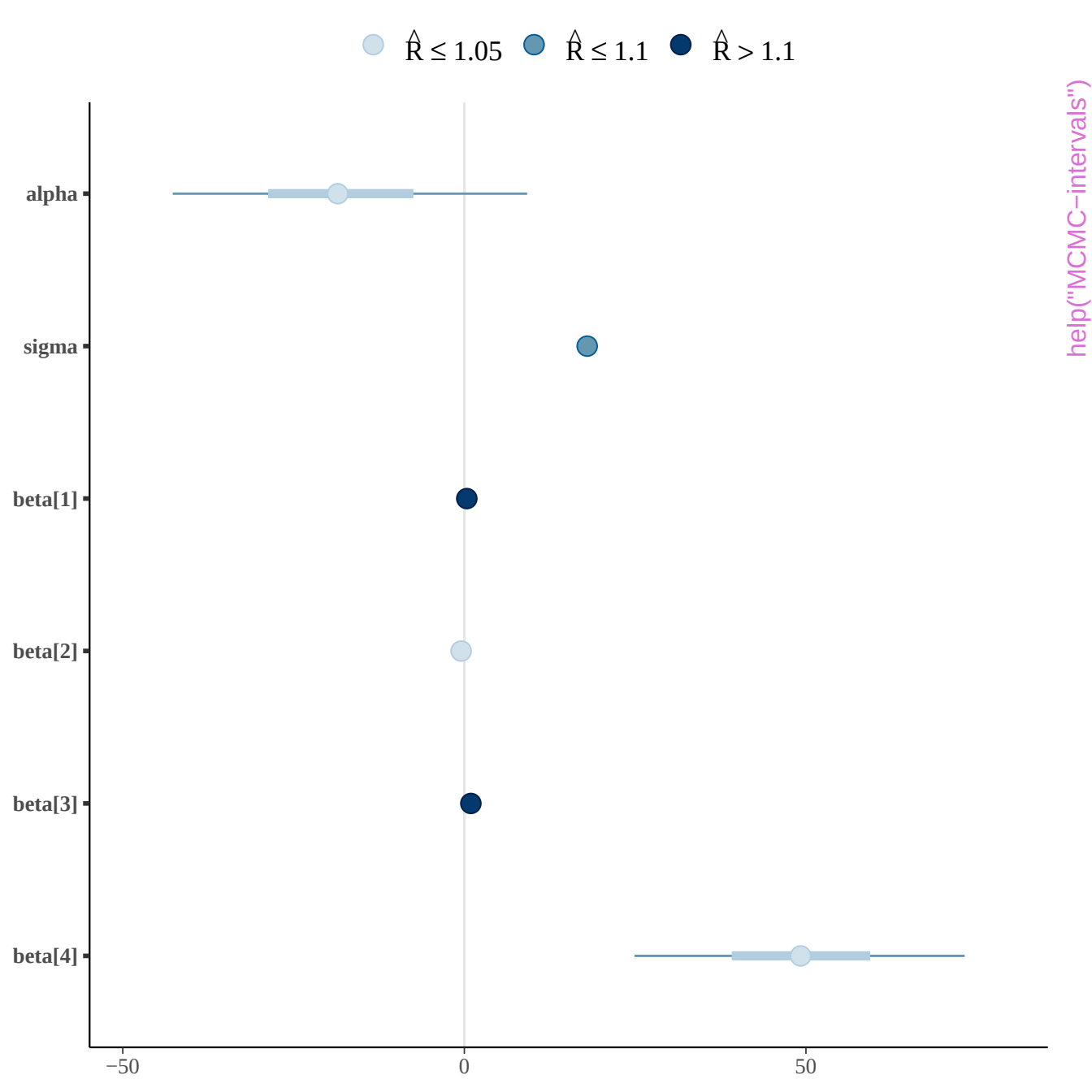


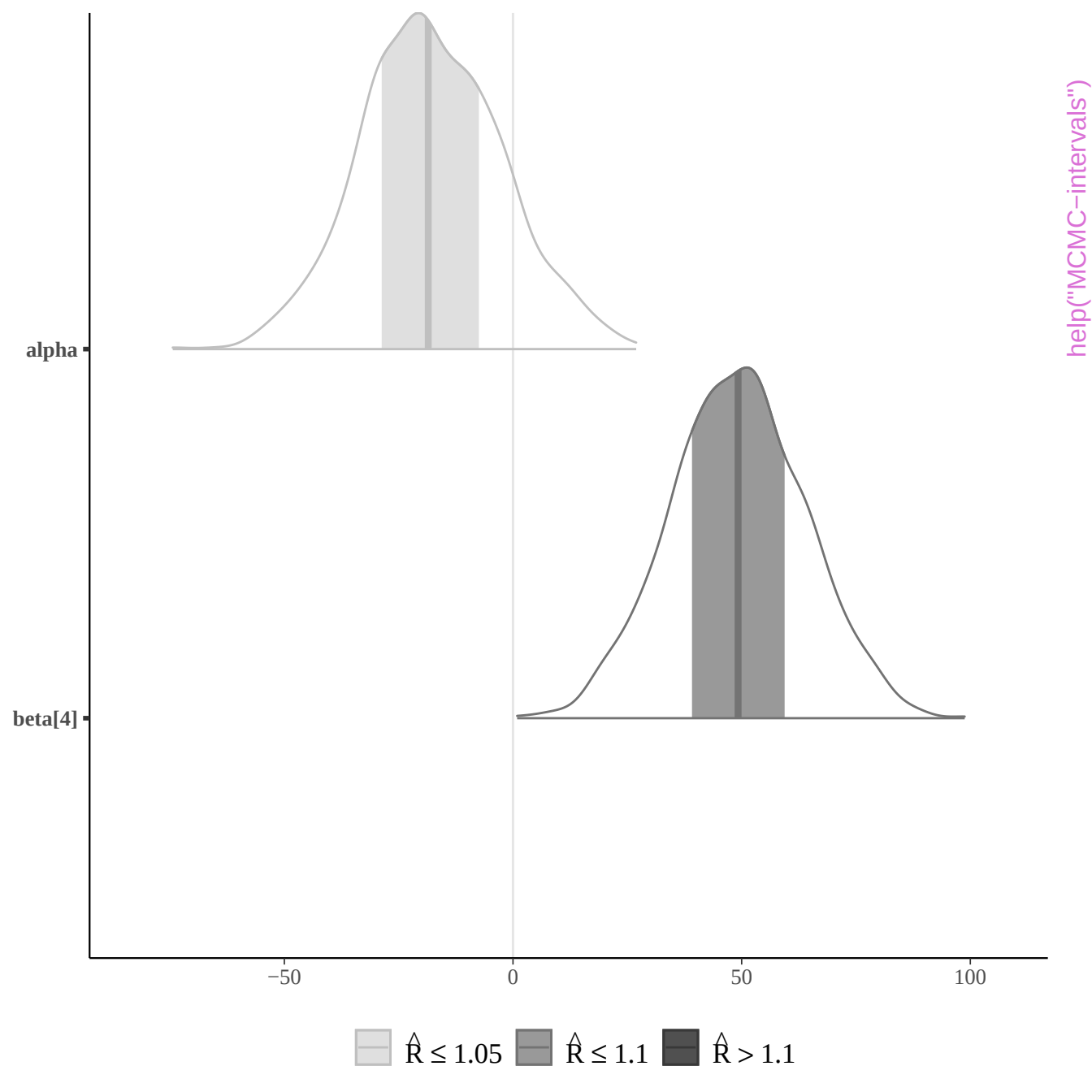

alpha
sigma
beta[1]
beta[2]
beta[3]
beta[4]
−50
0
50
help("MCMC−intervals")

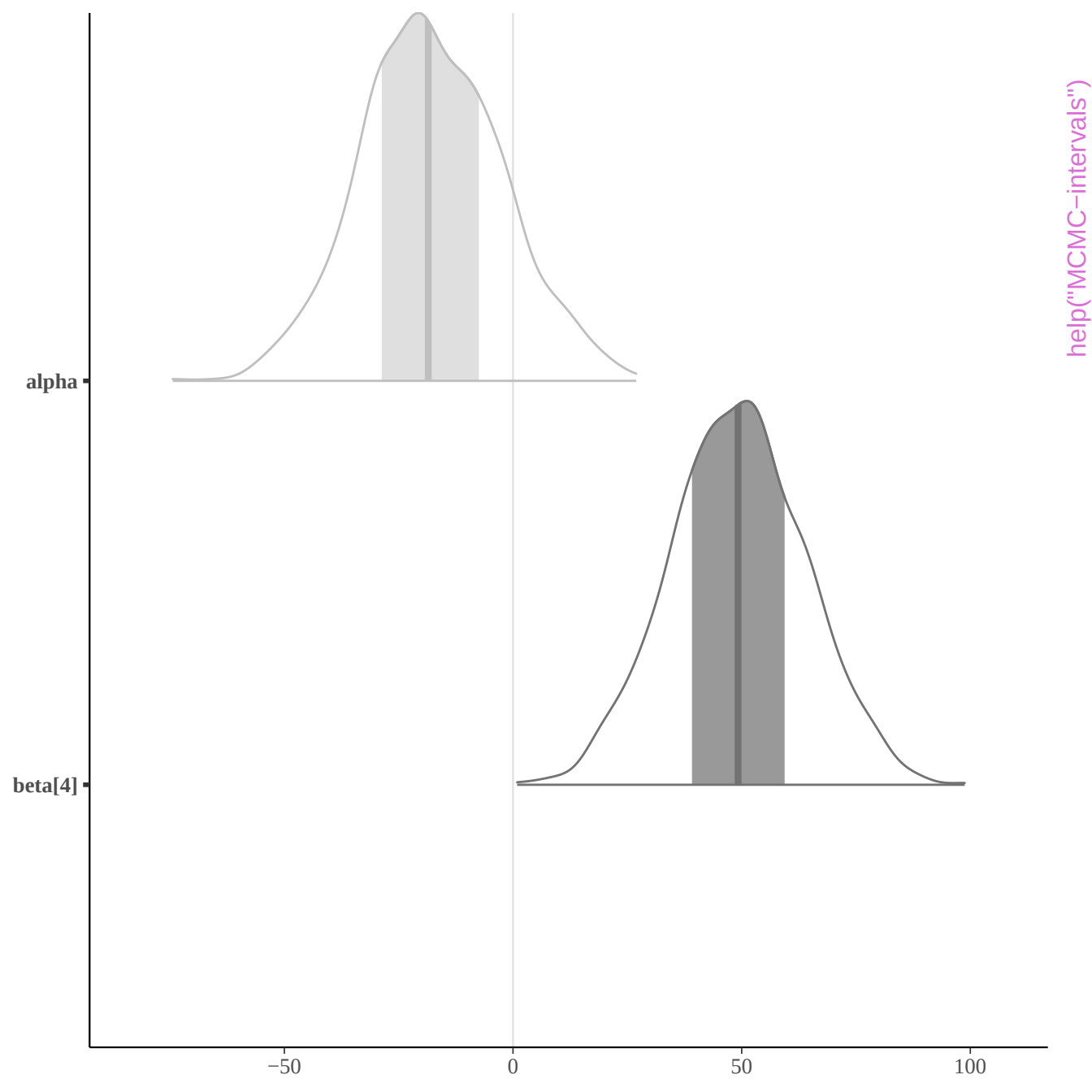

beta[1]
beta[2]
−0.5
0.0
0.5
1.0
help("MCMC−intervals")

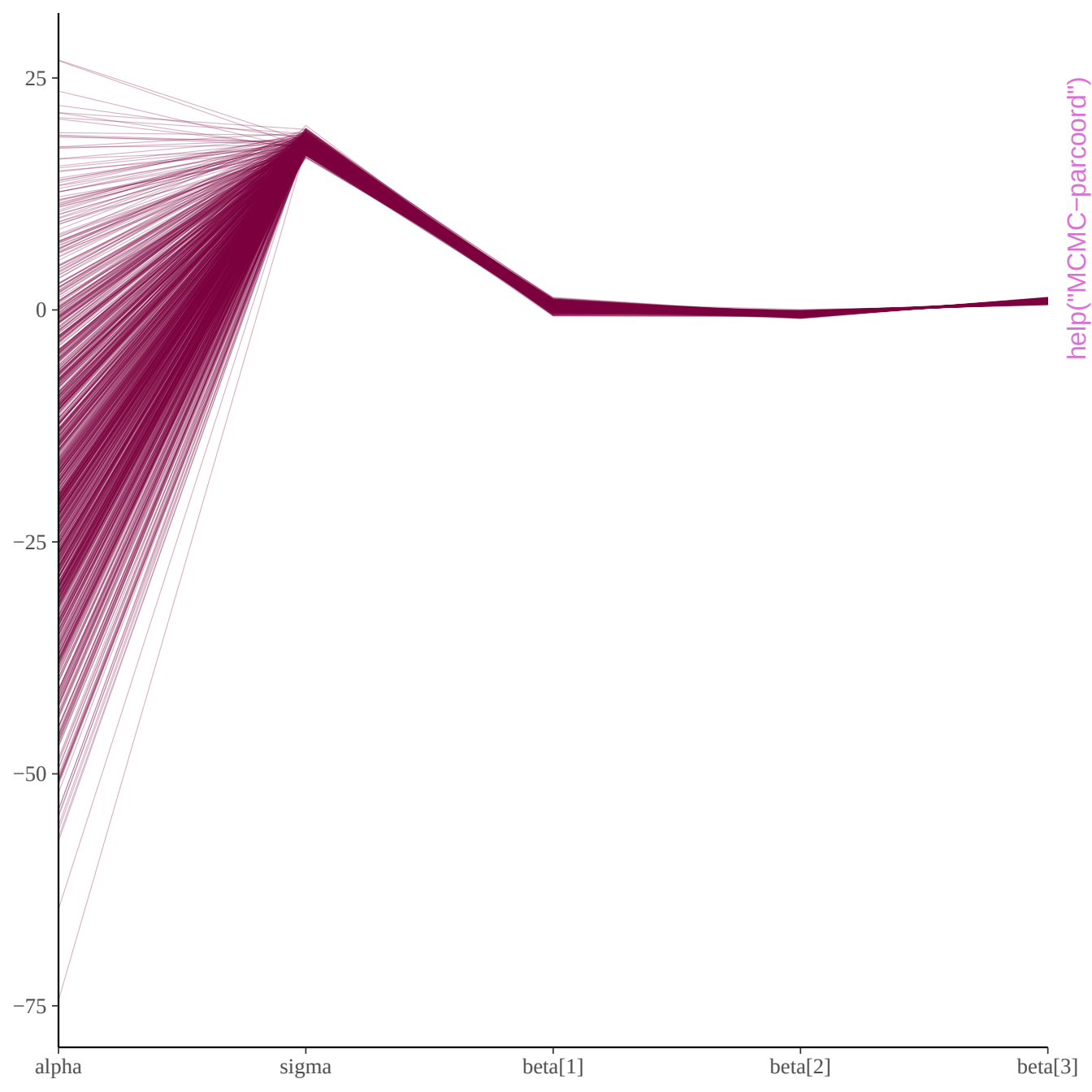

Posterior distributions
with medians and 80% intervals
beta[1]
beta[2]
beta[3]
−1.0
−0.5
0.0
0.5
1.0
1.5
help("MCMC−intervals")

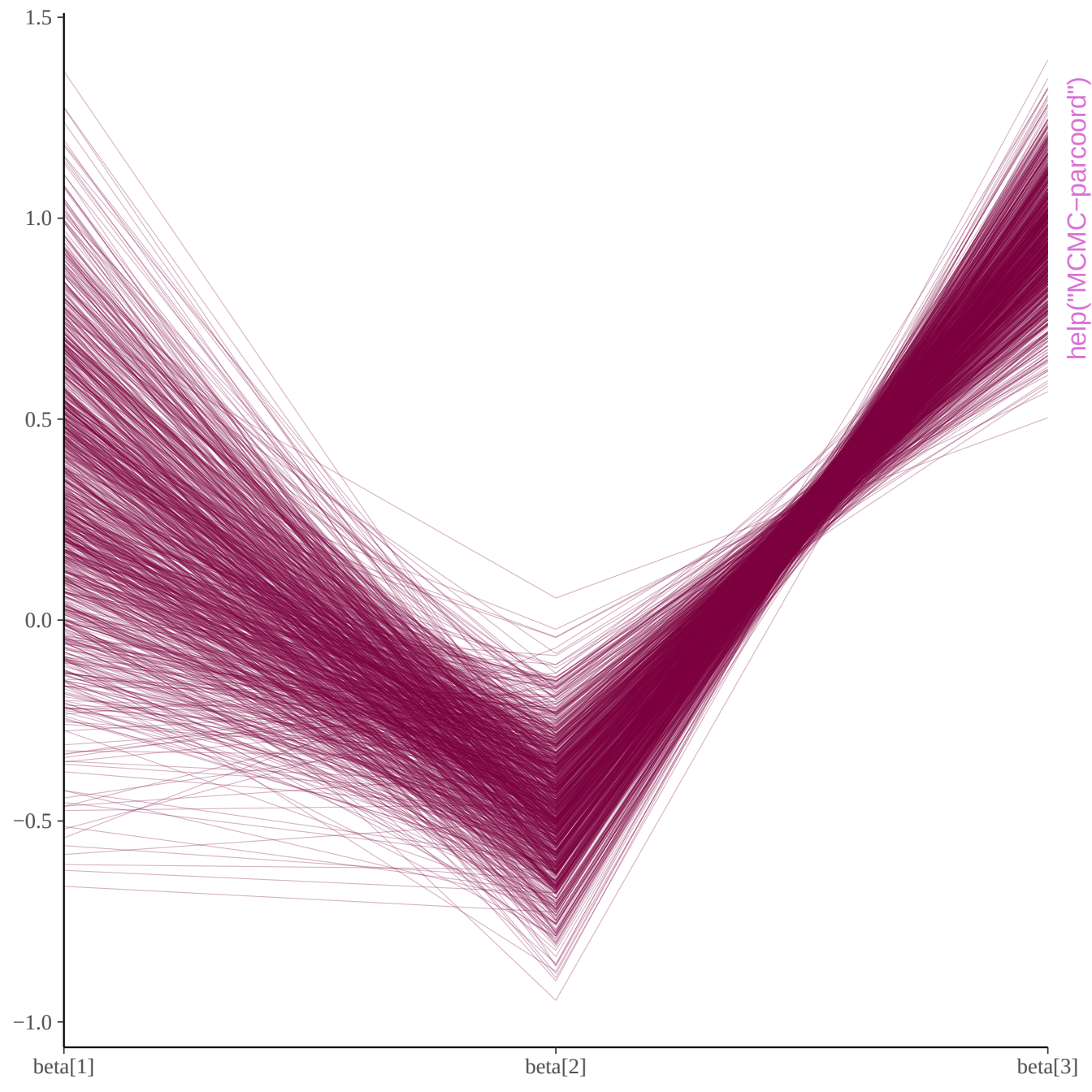

alpha
beta[4]
−50
0
50
help("MCMC−intervals")

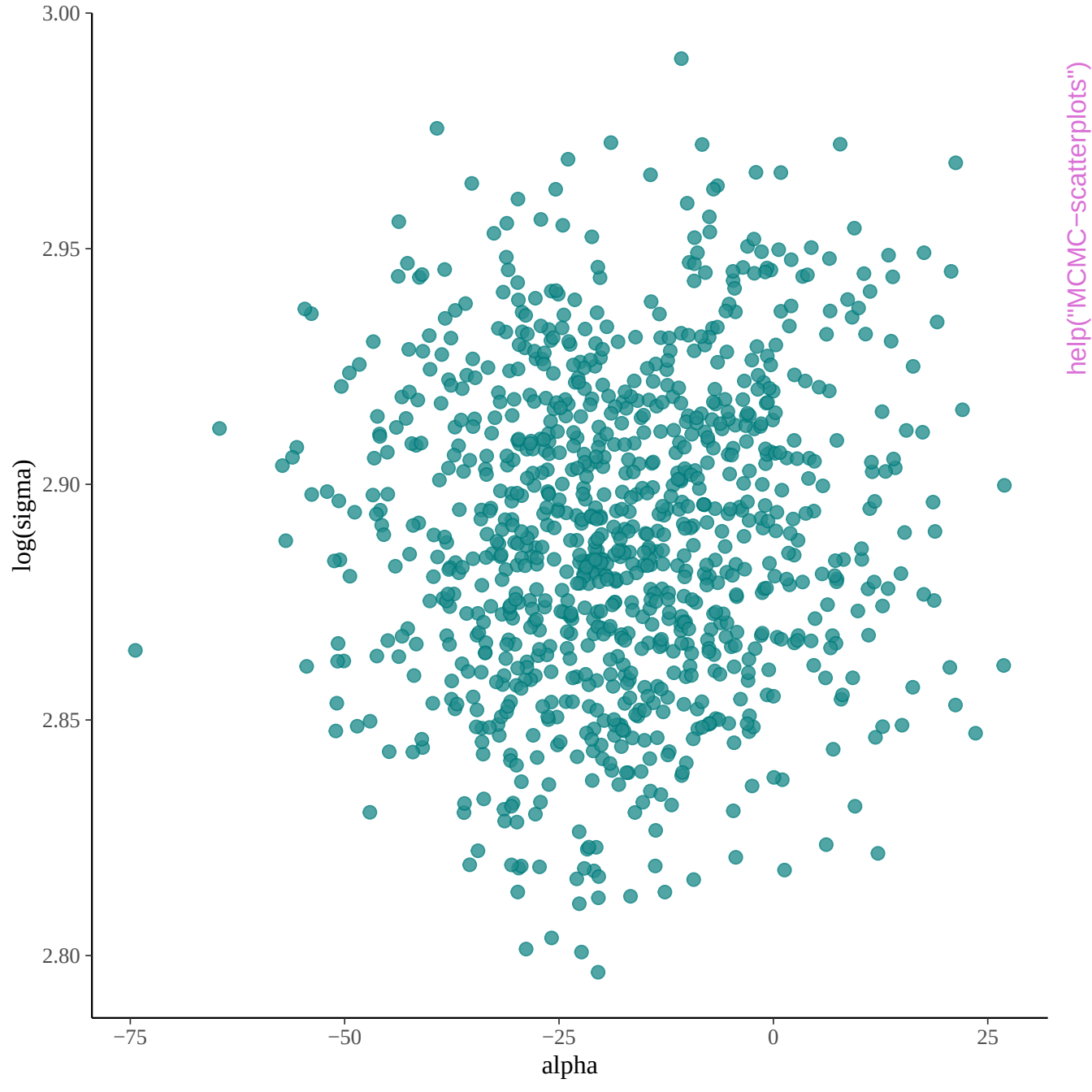

R̂ ≤ 1.05
R̂ ≤ 1.1
R̂ > 1.1
alpha
sigma
beta[1]
beta[2]
beta[3]
beta[4]
−50
0
50
help("MCMC−intervals")

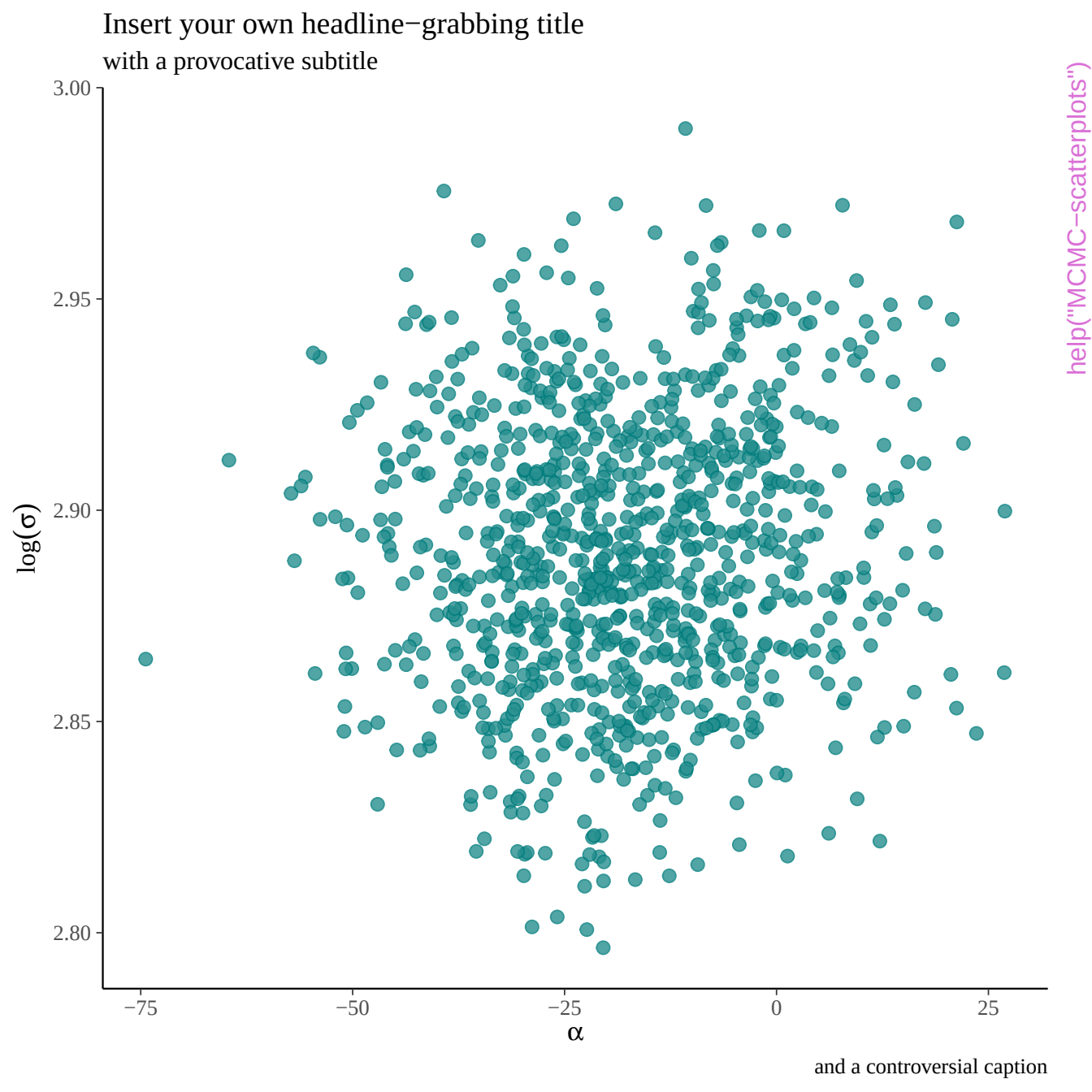

alpha
beta[4]
−50
0
50
100
R̂ ≤ 1.05
R̂ ≤ 1.1
R̂ > 1.1
help("MCMC−intervals")

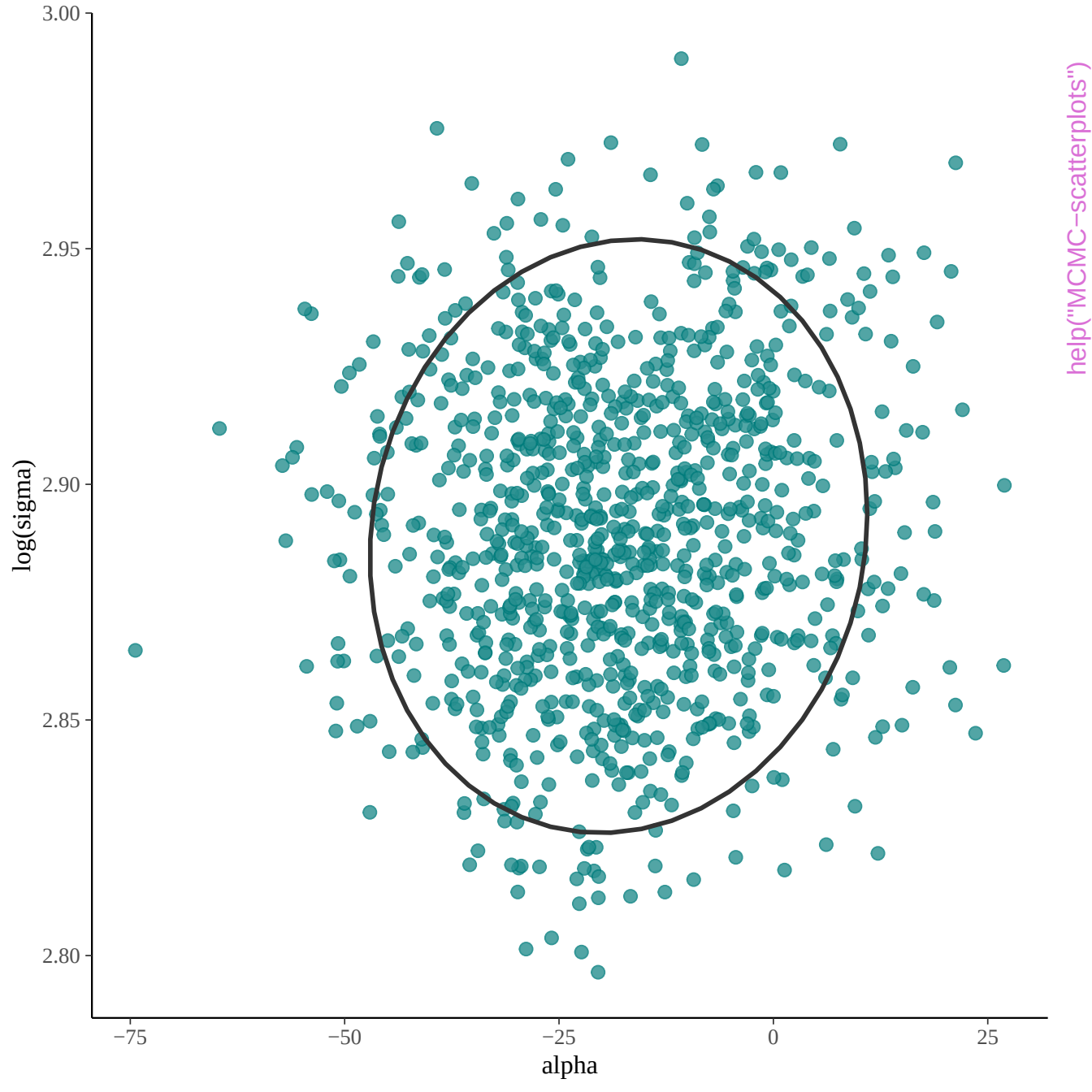

alpha
beta[4]
−50
0
50
100
help("MCMC−intervals")

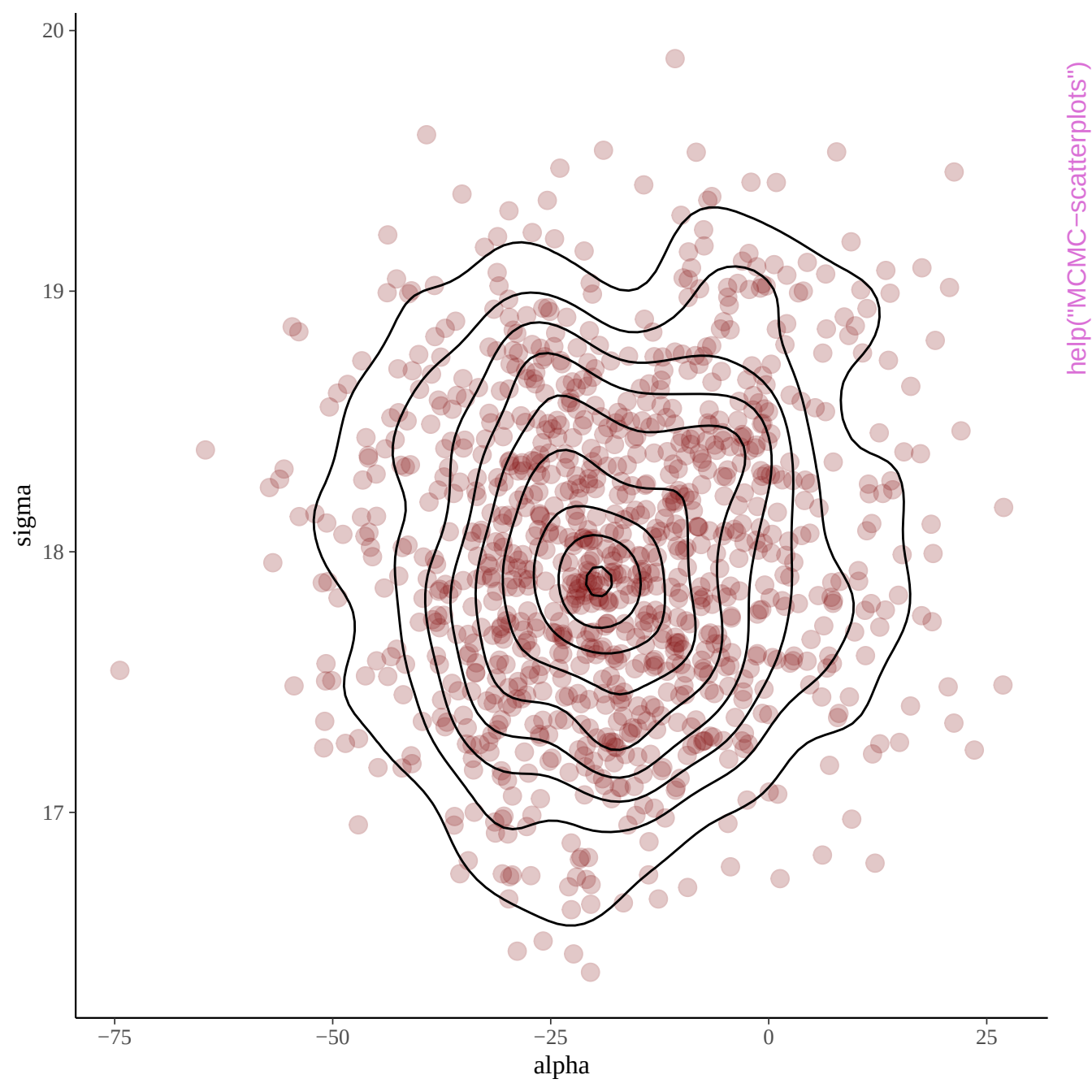

25
0
−25
−50
−75
alpha
sigma
beta[1]
beta[2]
beta[3]
help("MCMC−parcoord")

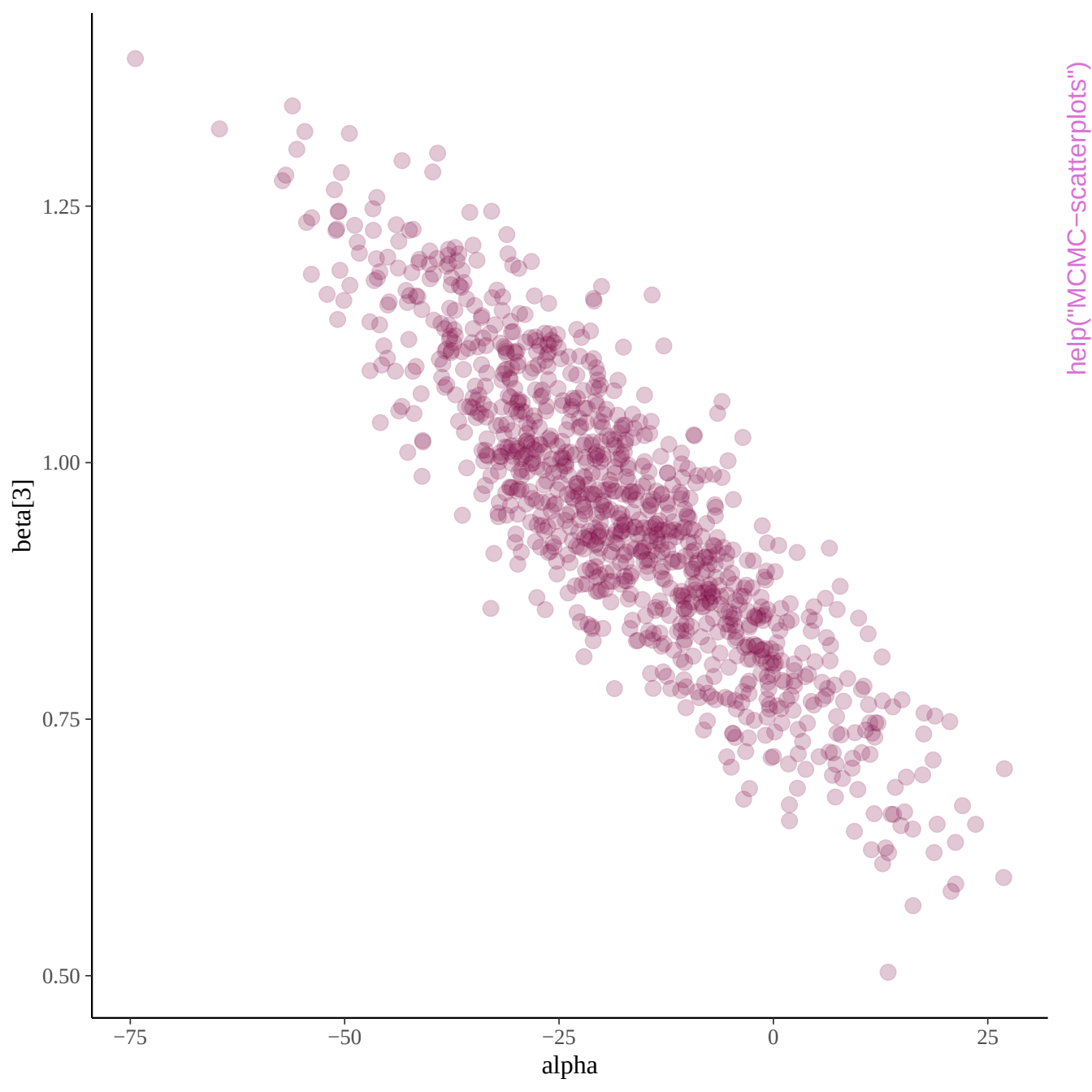

1.5
1.0
0.5
0.0
−0.5
−1.0
beta[1]
beta[2]
beta[3]
help("MCMC−parcoord")

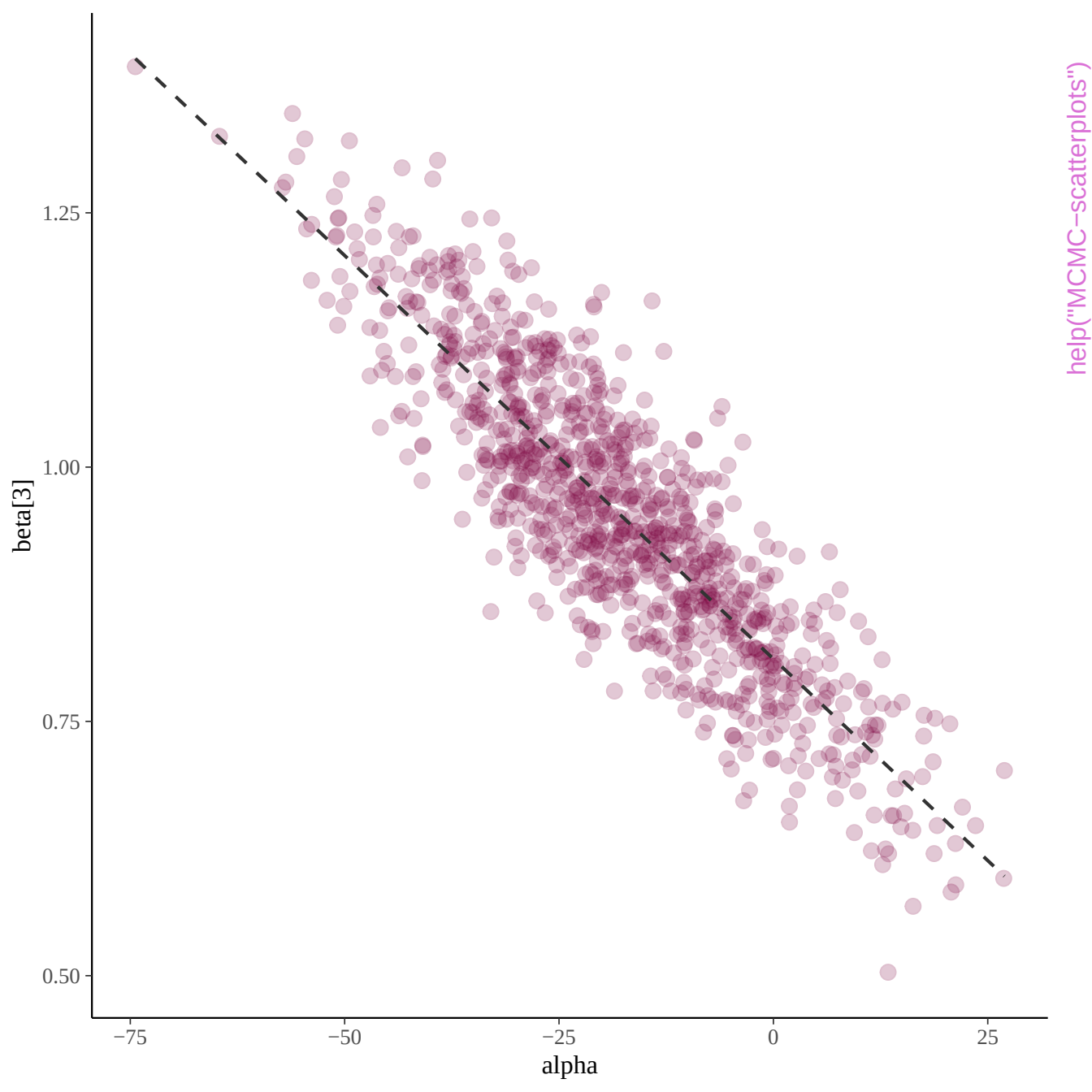

3.00
2.95
2.90
2.85
2.80
log(sigma)
−75
−50
−25
0
25
alpha
help("MCMC−scatterplots")

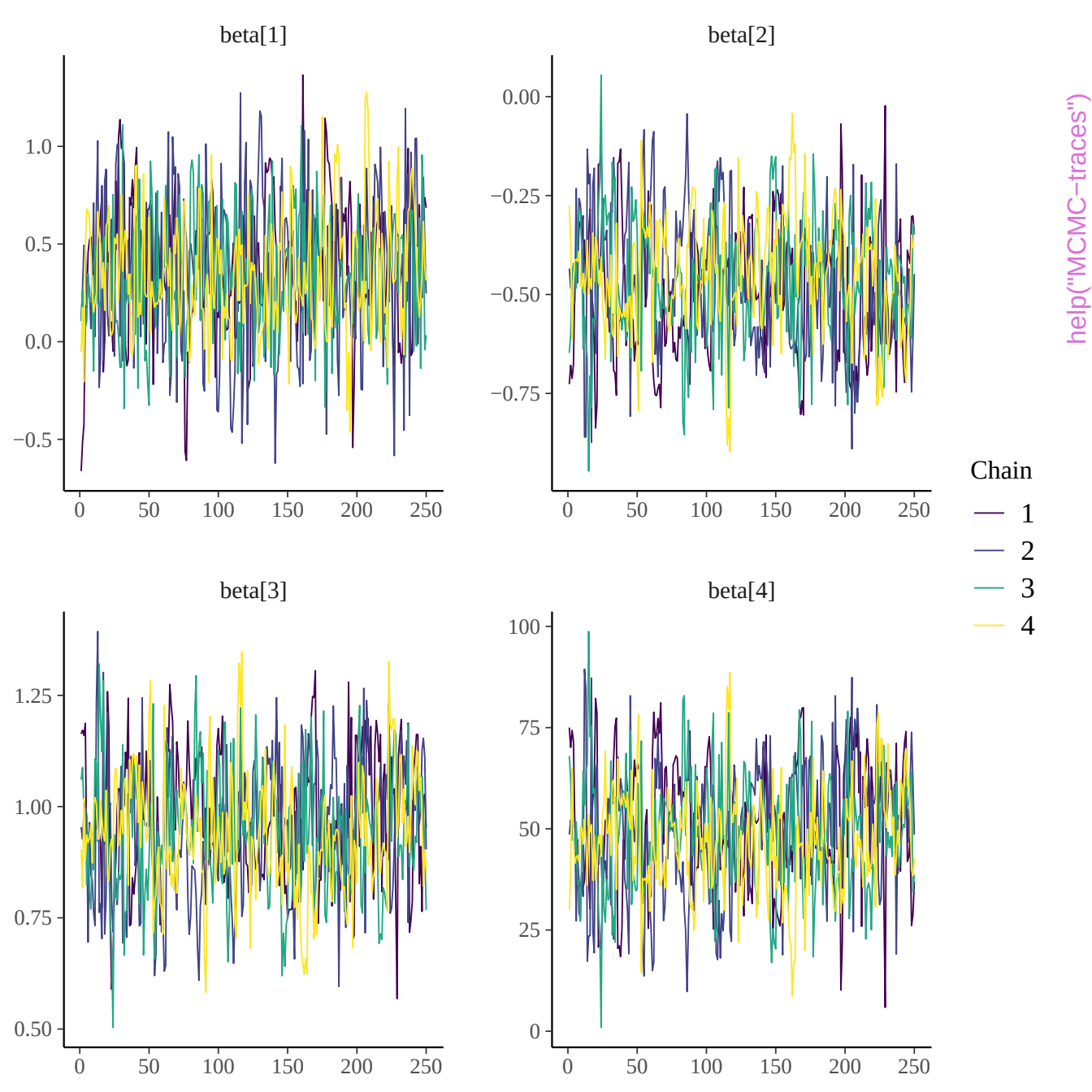

Insert your own headline−grabbing title
with a provocative subtitle
3.00
2.95
2.90
2.85
2.80
log(σ)
−75
−50
−25
0
25
α
and a controversial caption
help("MCMC−scatterplots")

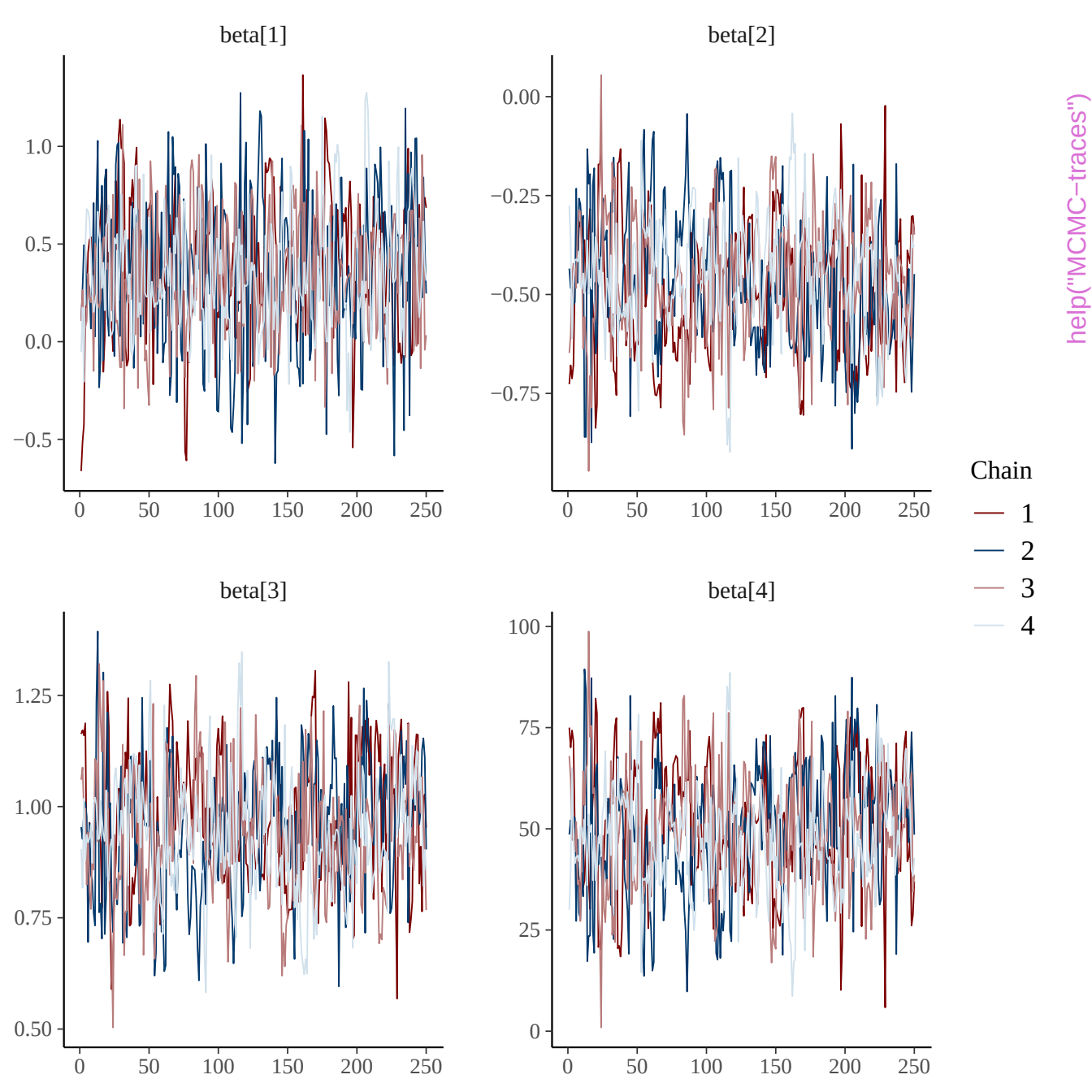

3.00
2.95
2.90
2.85
2.80
log(sigma)
−75
−50
−25
0
25
alpha
help("MCMC−scatterplots")

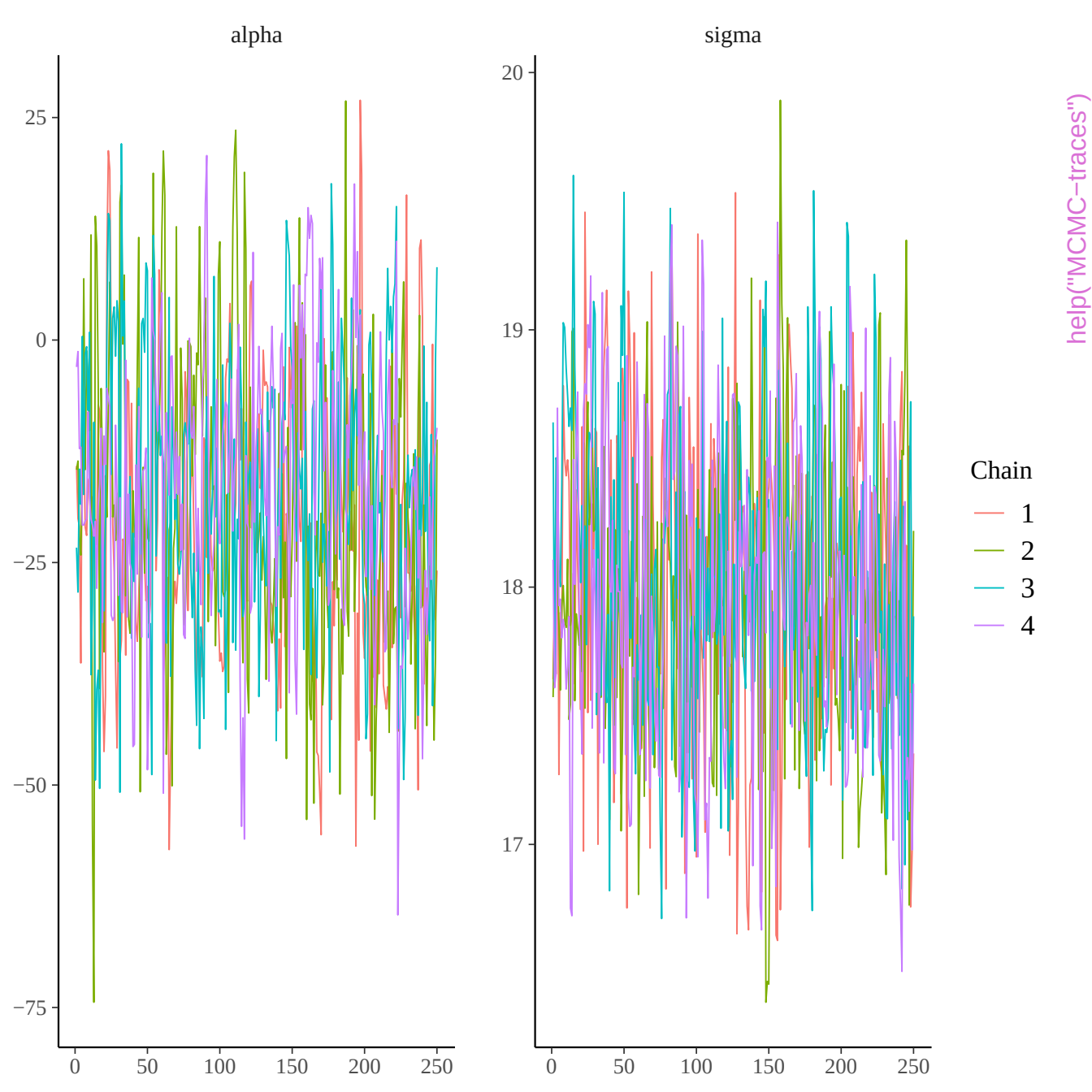

20
19
18
17
sigma
−75
−50
−25
0
25
alpha
help("MCMC−scatterplots")

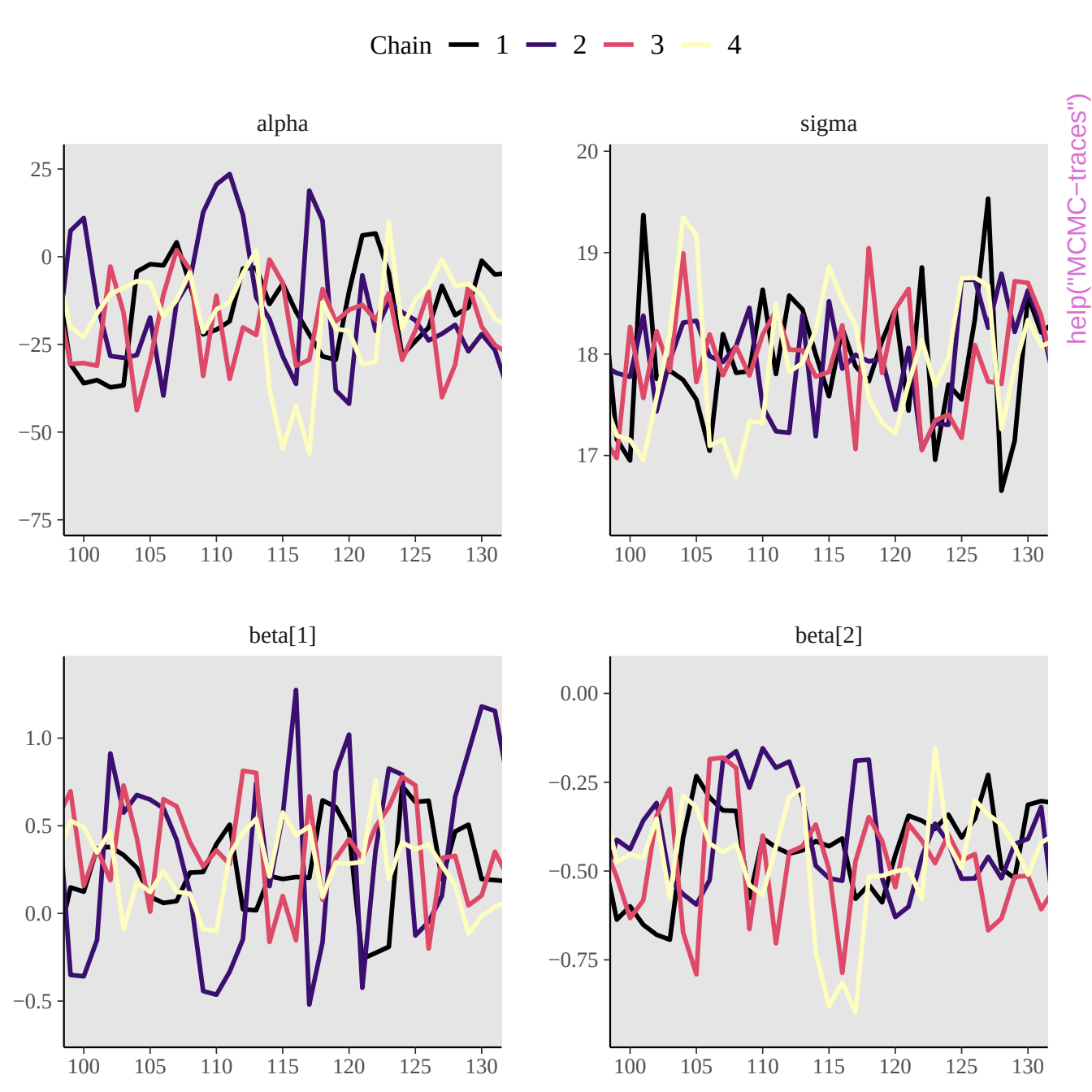

help("MCMC-scatterplots")
beta[3]
1.25
1.00
0.75
0.50
−75
−50
−25
0
25
alpha

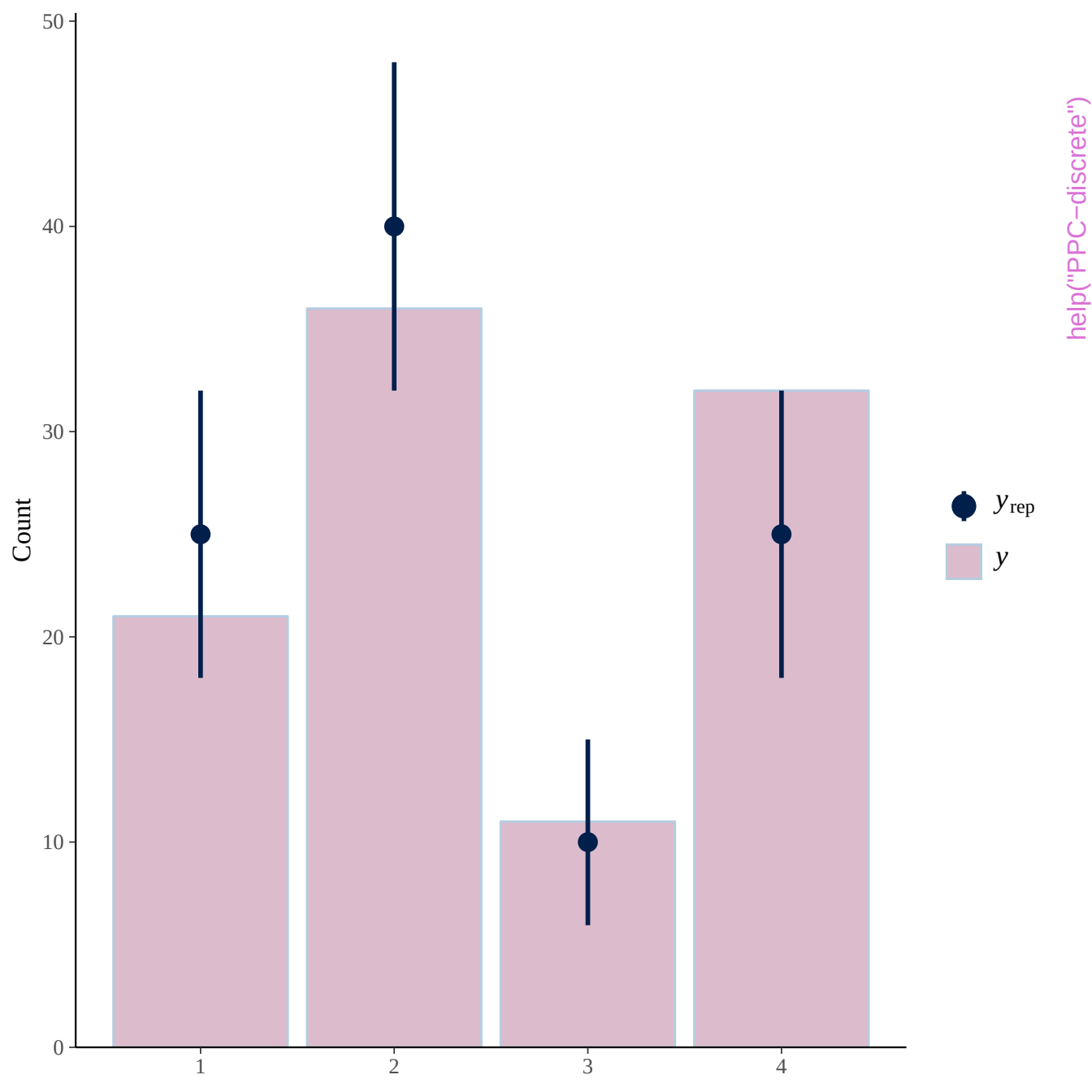

help("MCMC−scatterplots")
beta[3]
1.25
1.00
0.75
0.50
−75
−50
−25
0
25
alpha

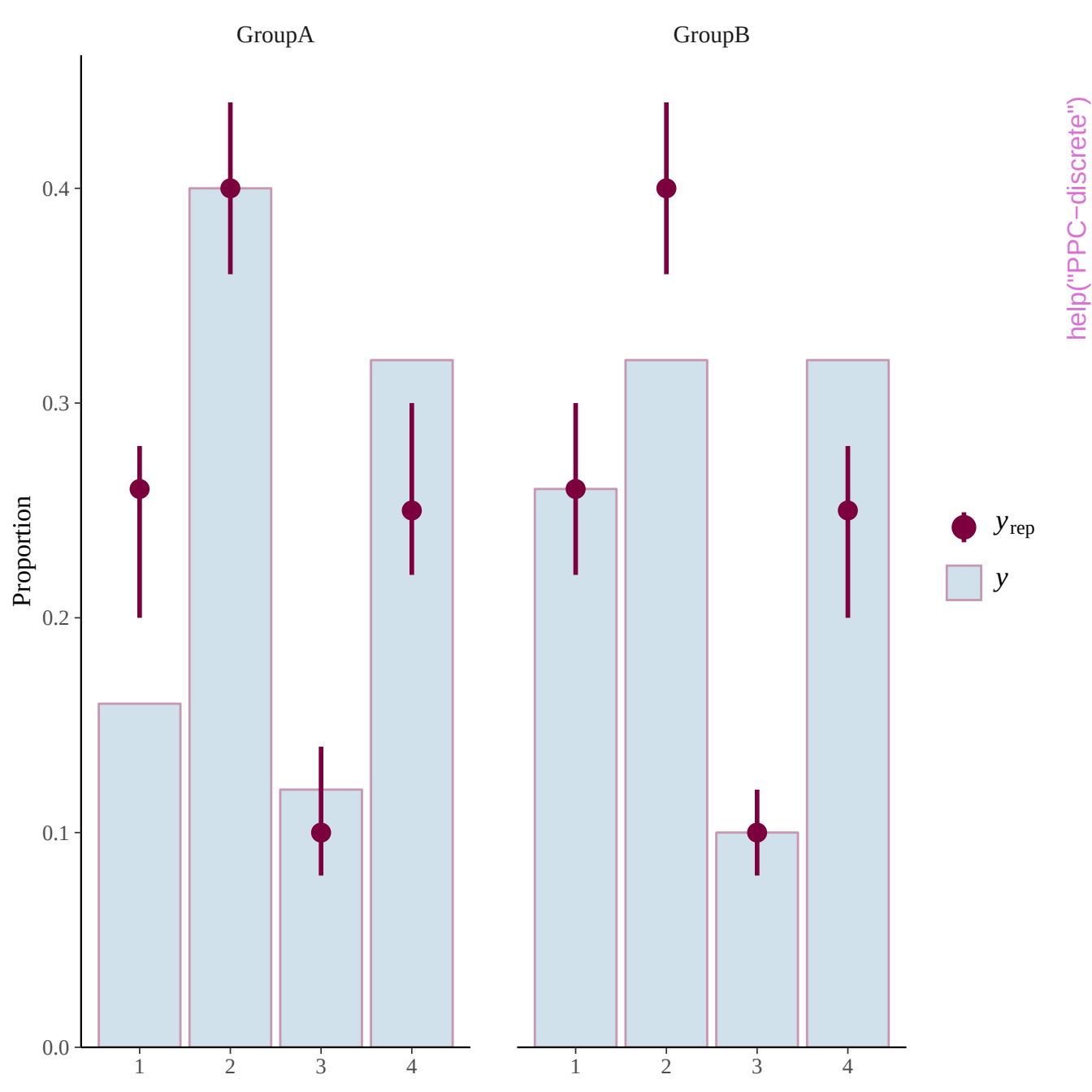

beta[1]
beta[2]
beta[3]
beta[4]
1.0
0.5
0.0
−0.5
0.00
−0.25
−0.50
−0.75
1.25
1.00
0.75
0.50
100
75
50
25
0
0
50
100
150
200
250
Chain
1
2
3
4
help("MCMC−traces")

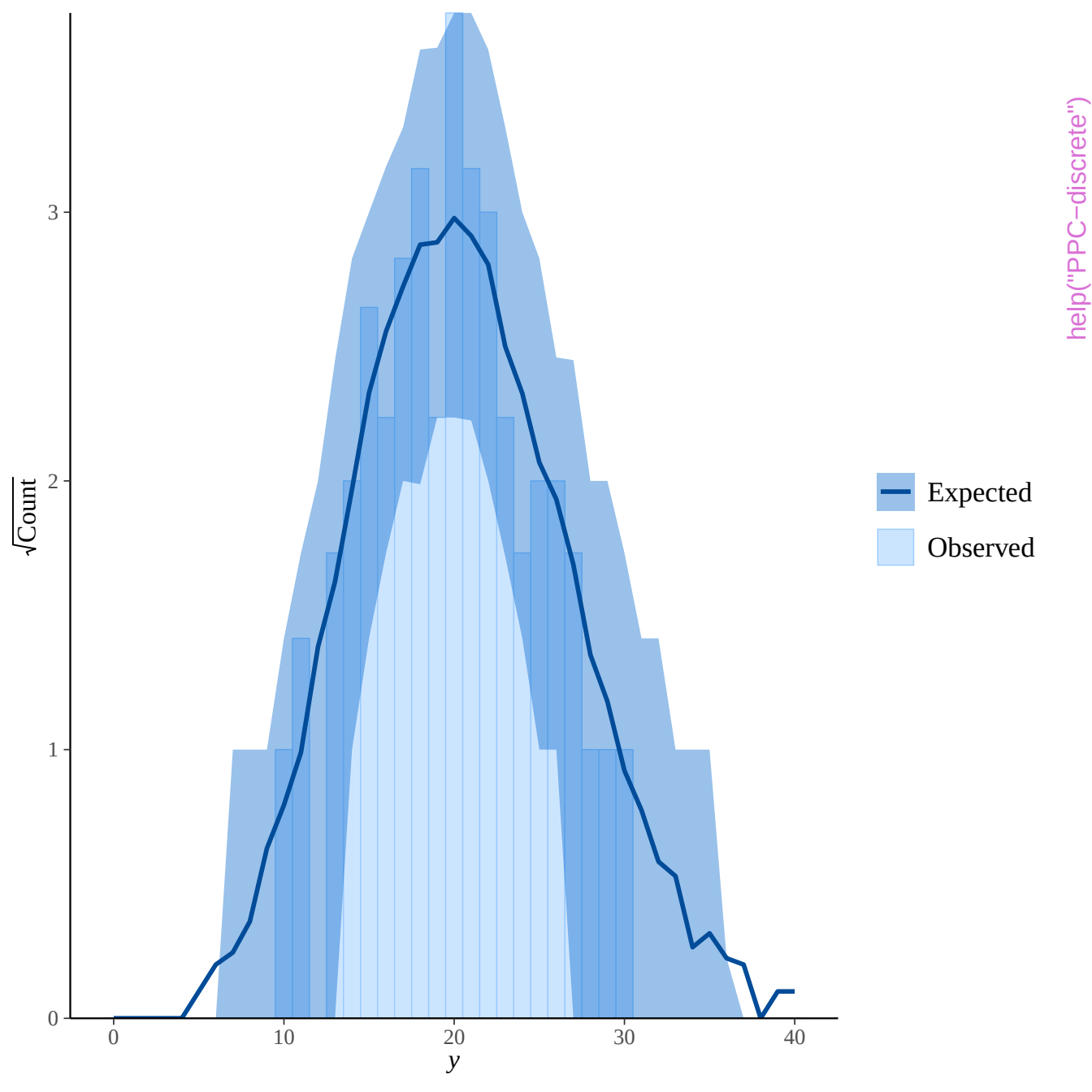

beta[1]
beta[2]
beta[3]
beta[4]
1.0
0.5
0.0
−0.5
0.00
−0.25
−0.50
−0.75
1.25
1.00
0.75
0.50
100
75
50
25
0
0
50
100
150
200
250
Chain
1
2
3
4
help("MCMC−traces")

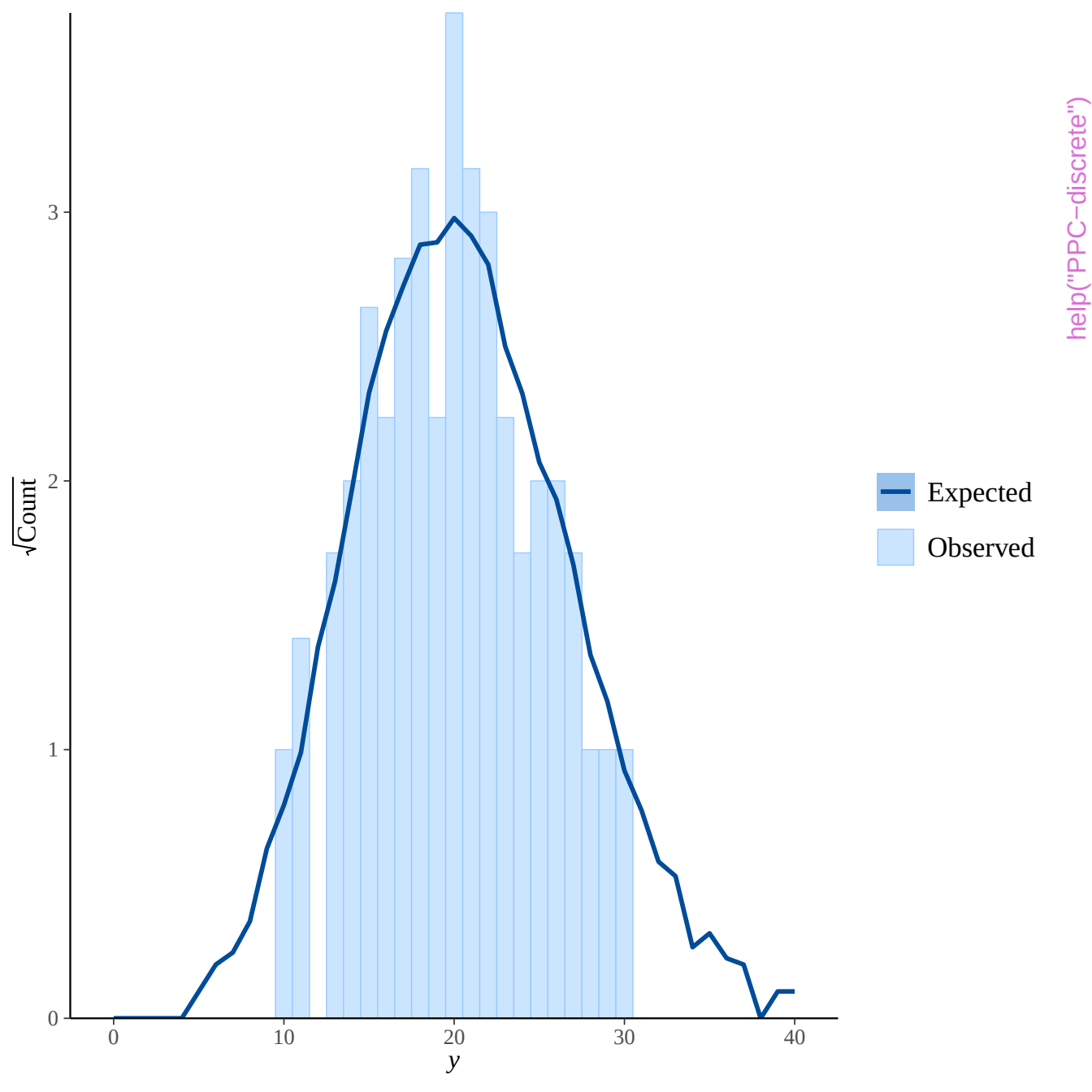

alpha
sigma
25
0
−25
−50
−75
20
19
18
17
0
50
100
150
200
250
Chain
1
2
3
4
help("MCMC−traces")

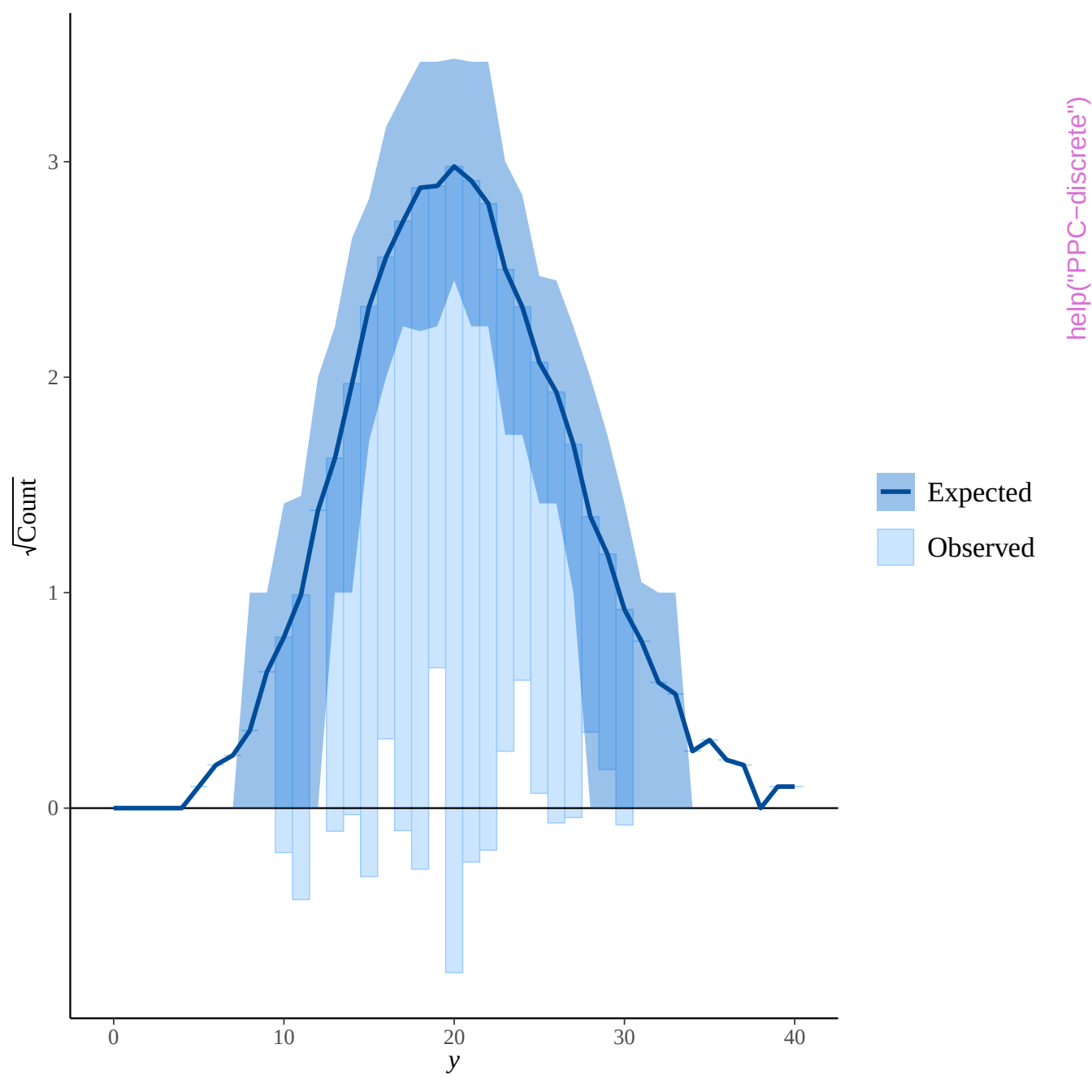

Chain 1 2 3 4
alpha
sigma
beta[1]
beta[2]
25
0
−25
−50
−75
20
19
18
17
1.0
0.5
0.0
−0.5
0.00
−0.25
−0.50
−0.75
100 105 110 115 120 125 130
help("MCMC−traces")

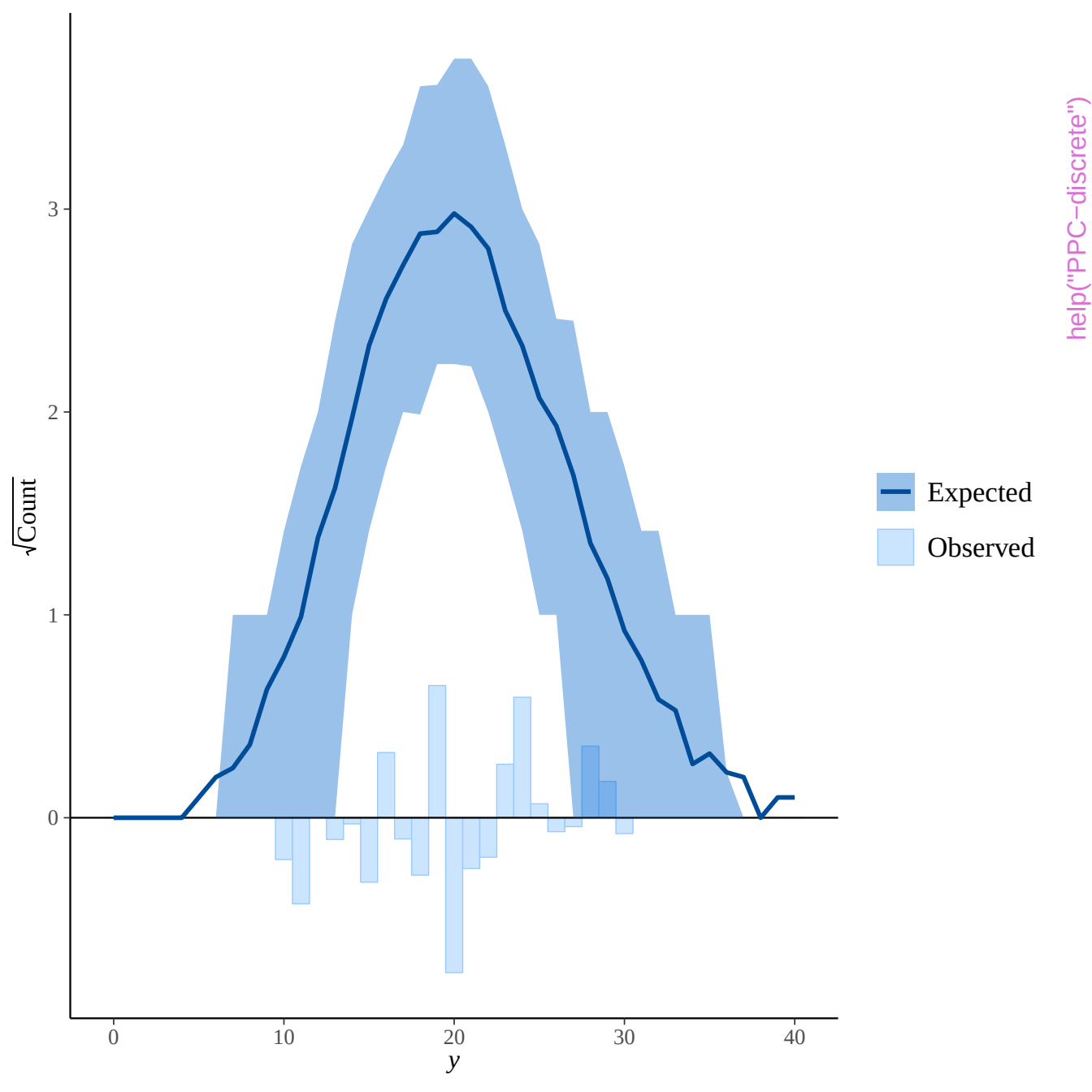

50
40
30
20
10
0
Count
1
2
3
4
y_{rep}
y
help("PPC−discrete")

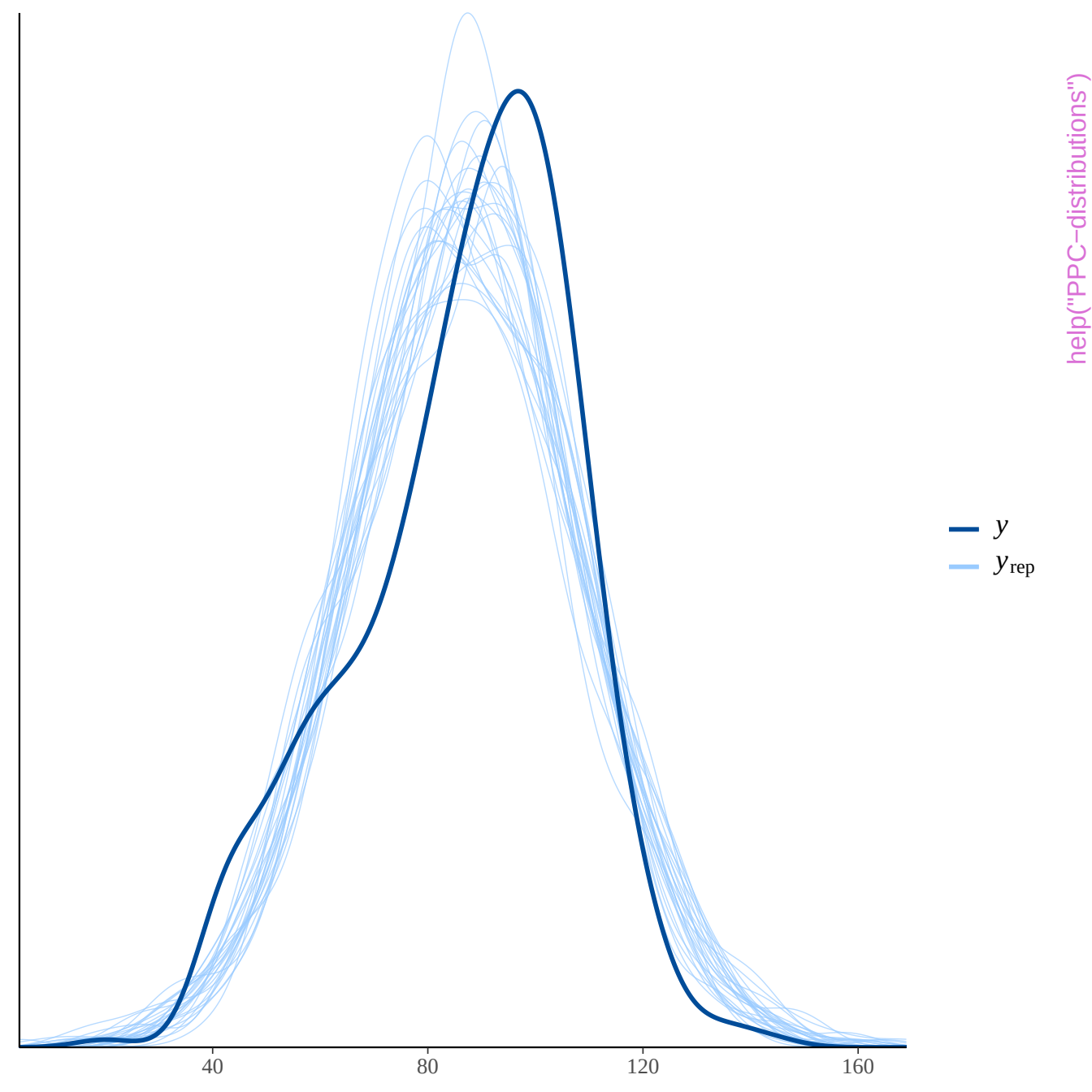

GroupA
GroupB
Proportion
0.0
0.1
0.2
0.3
0.4
1
2
3
4
y_{rep}
y
help("PPC−discrete")

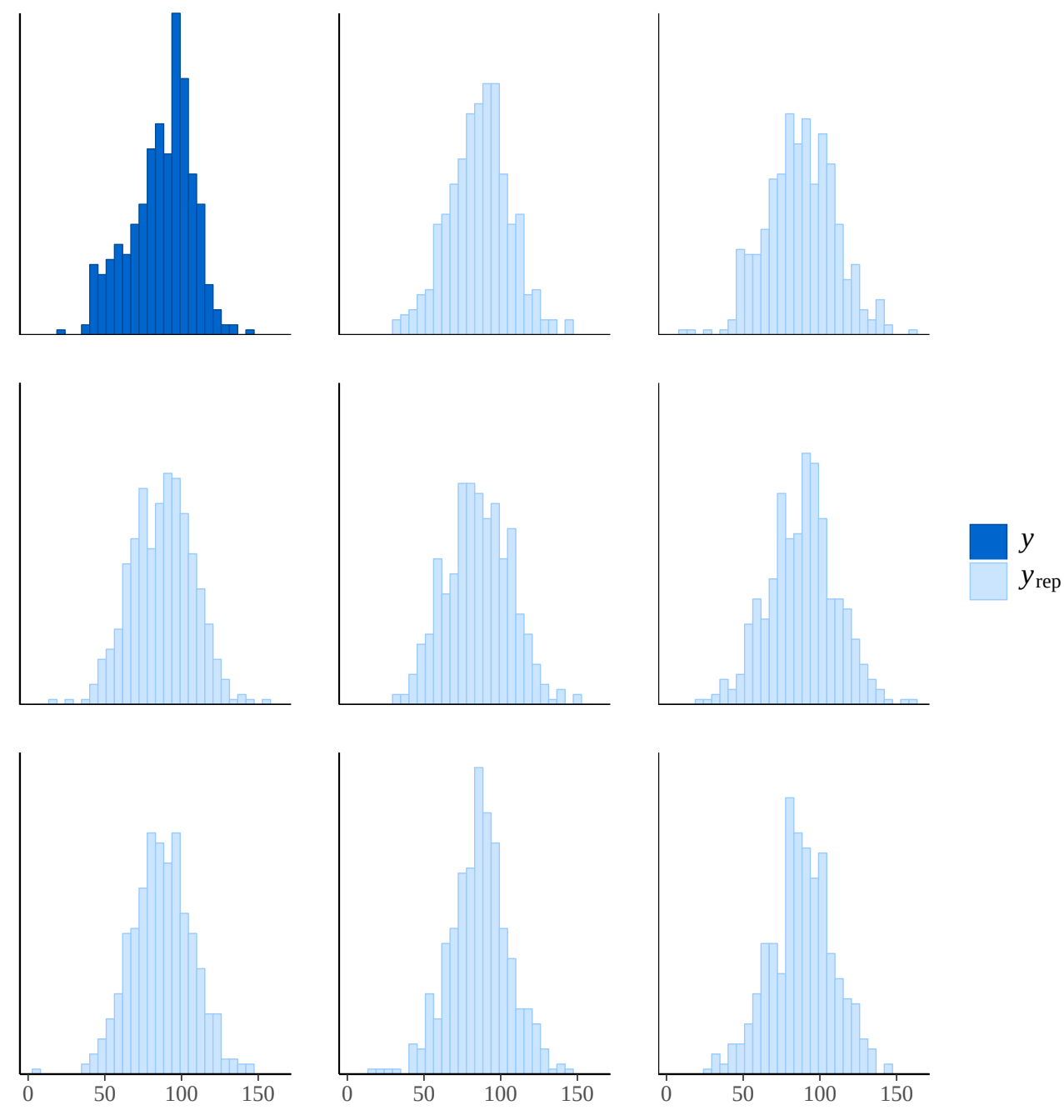

help("PPC−discrete")
Expected
Observed
√Count
0
1
2
3
0
10
20
30
40
y

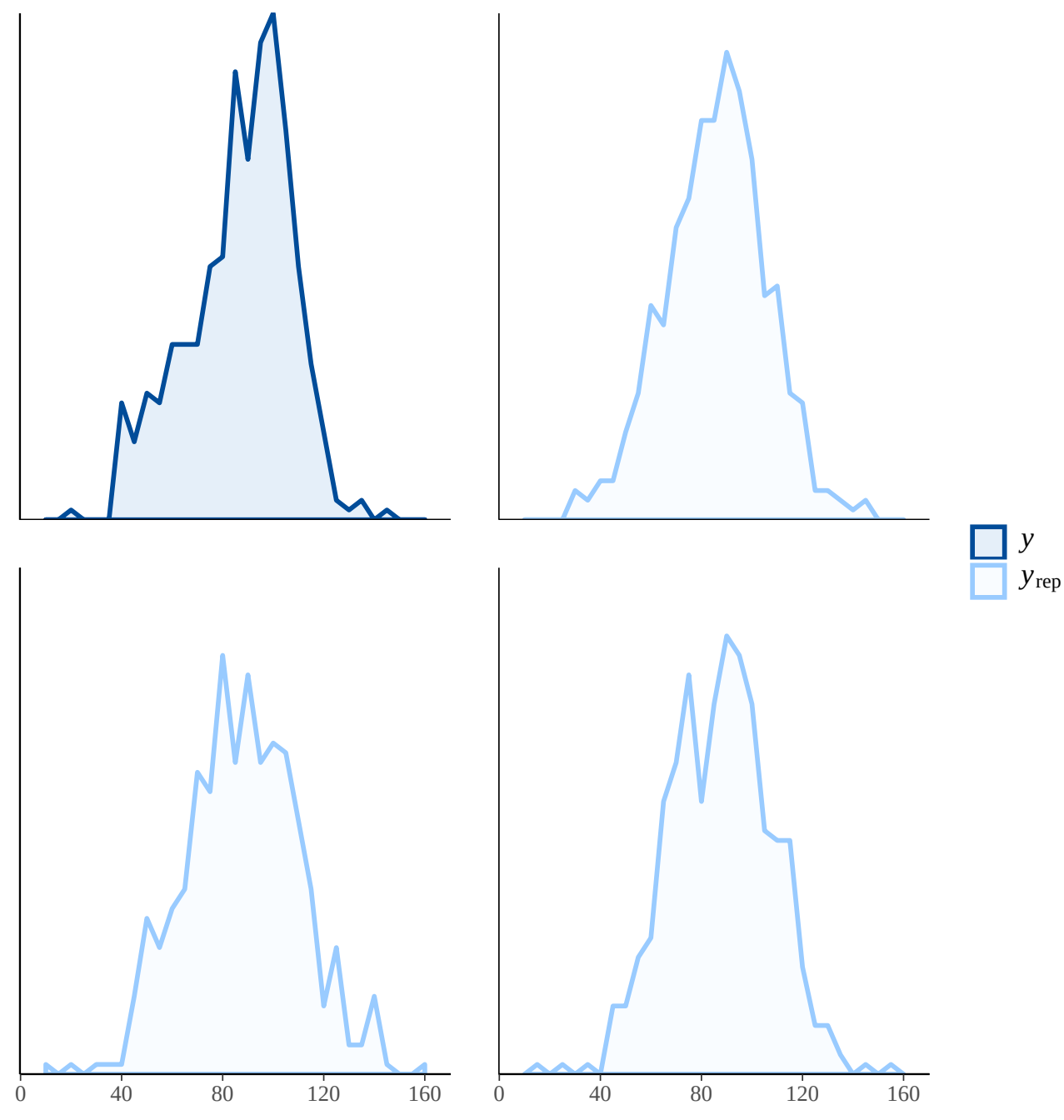

help("PPC−discrete")
Expected
Observed
√Count
0
1
2
3
0
10
20
30
40
y

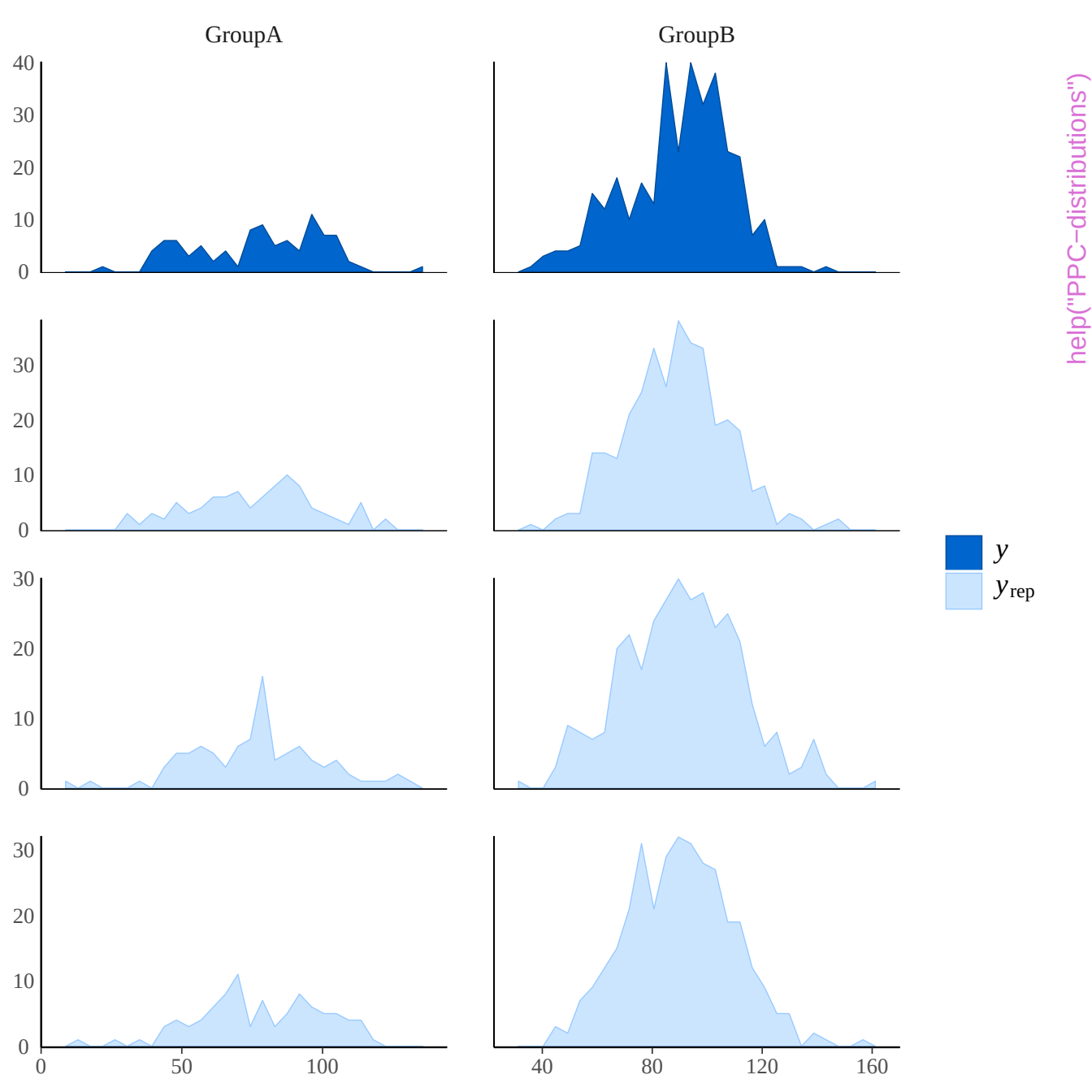

help("PPC−discrete")
Expected
Observed
√Count
3
2
1
0
0
10
20
30
40
y

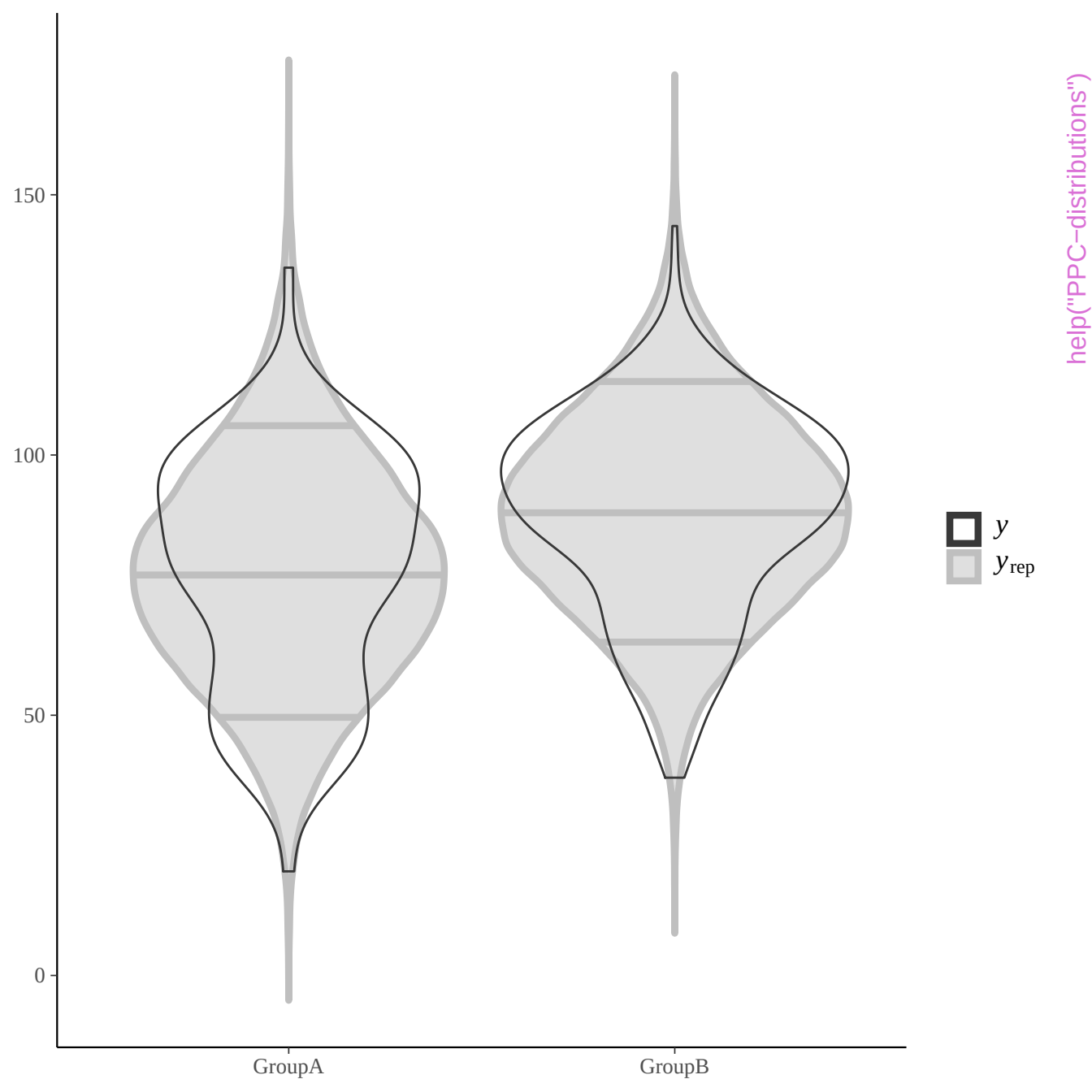

help("PPC−discrete")
Expected
Observed
√Count
3
2
1
0
0
10
20
30
40
y

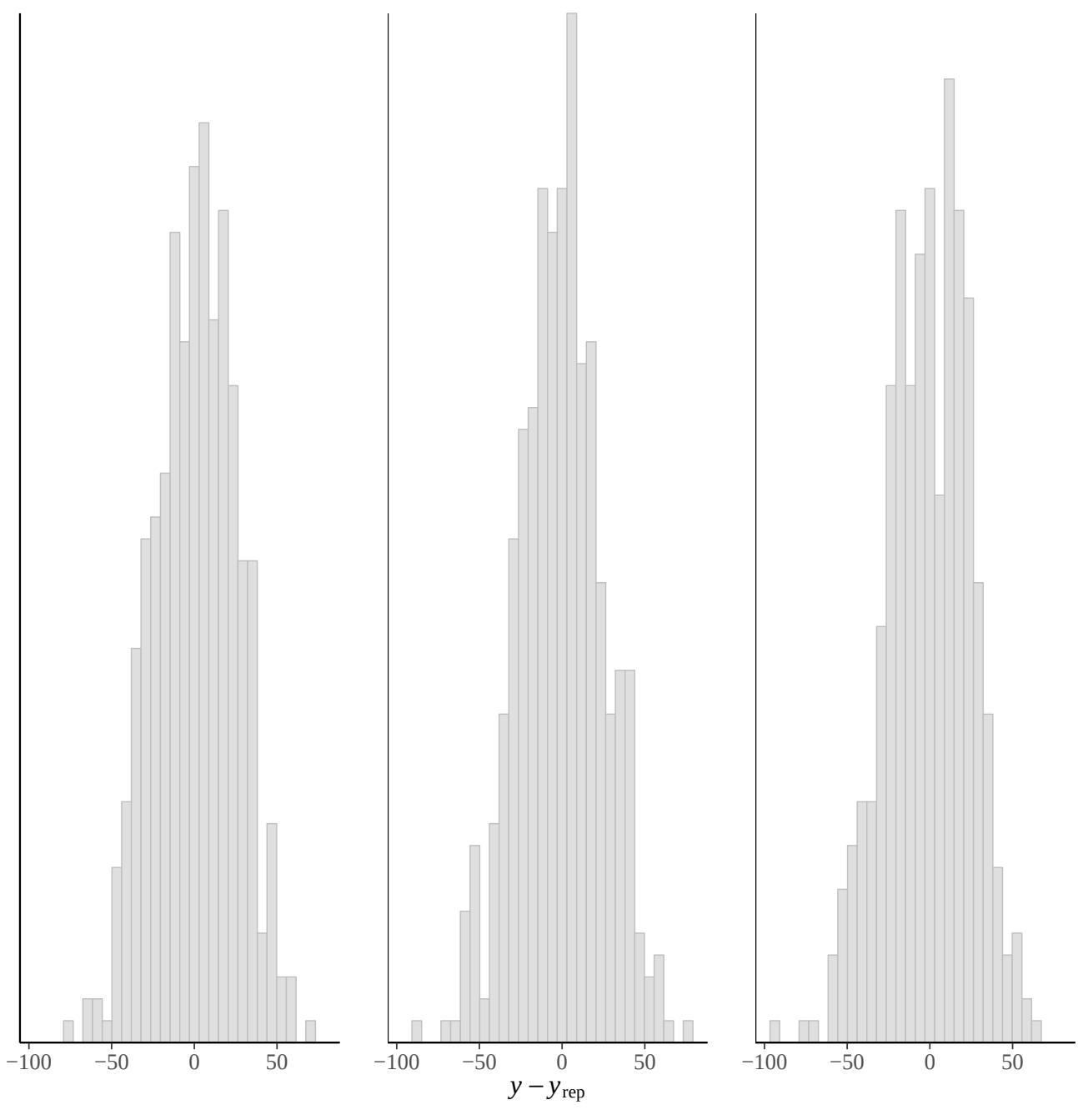

help("PPC−distributions")
y
y rep
40
80
120
160

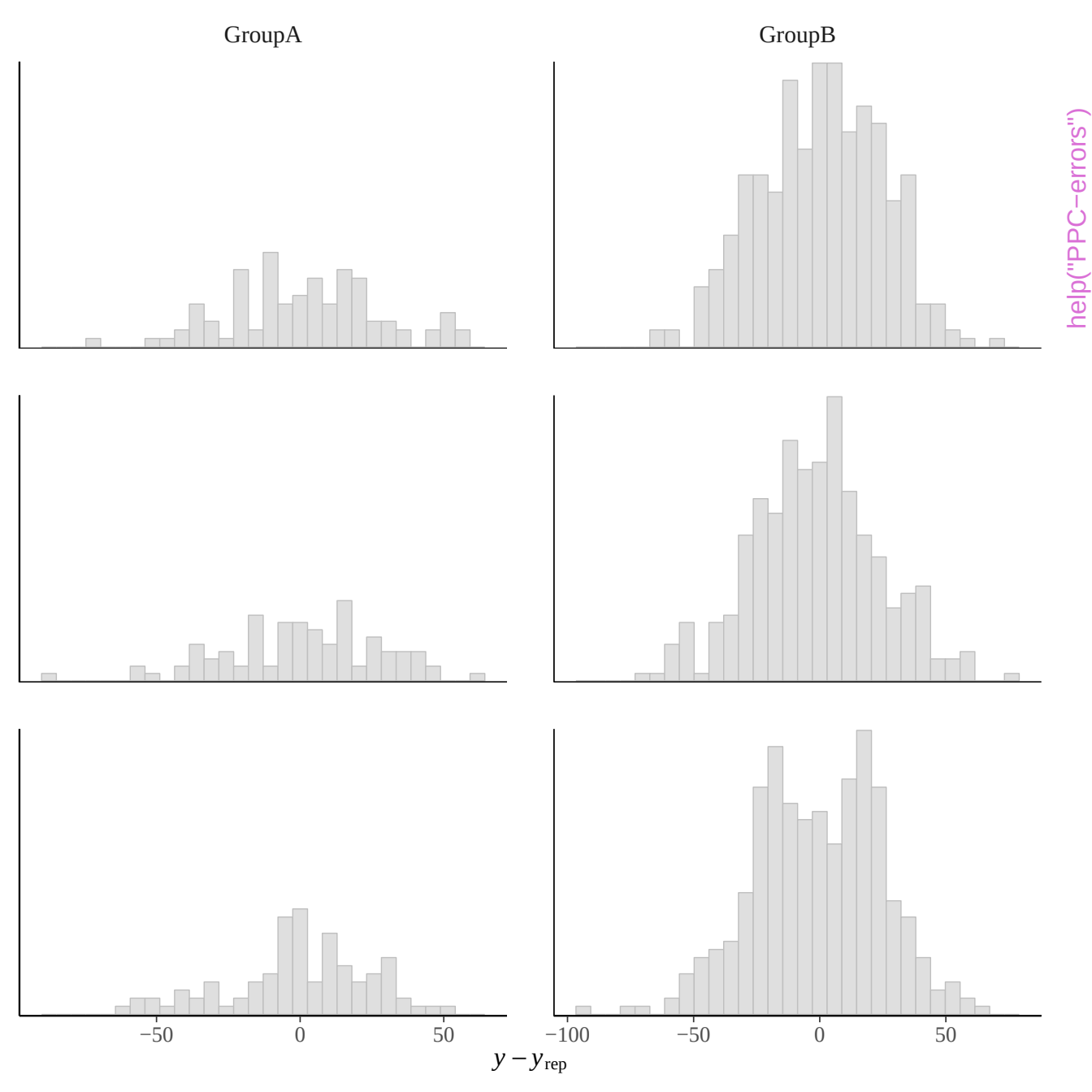

help("PPC-distributions")
y
y_{rep}
0
50
100
150

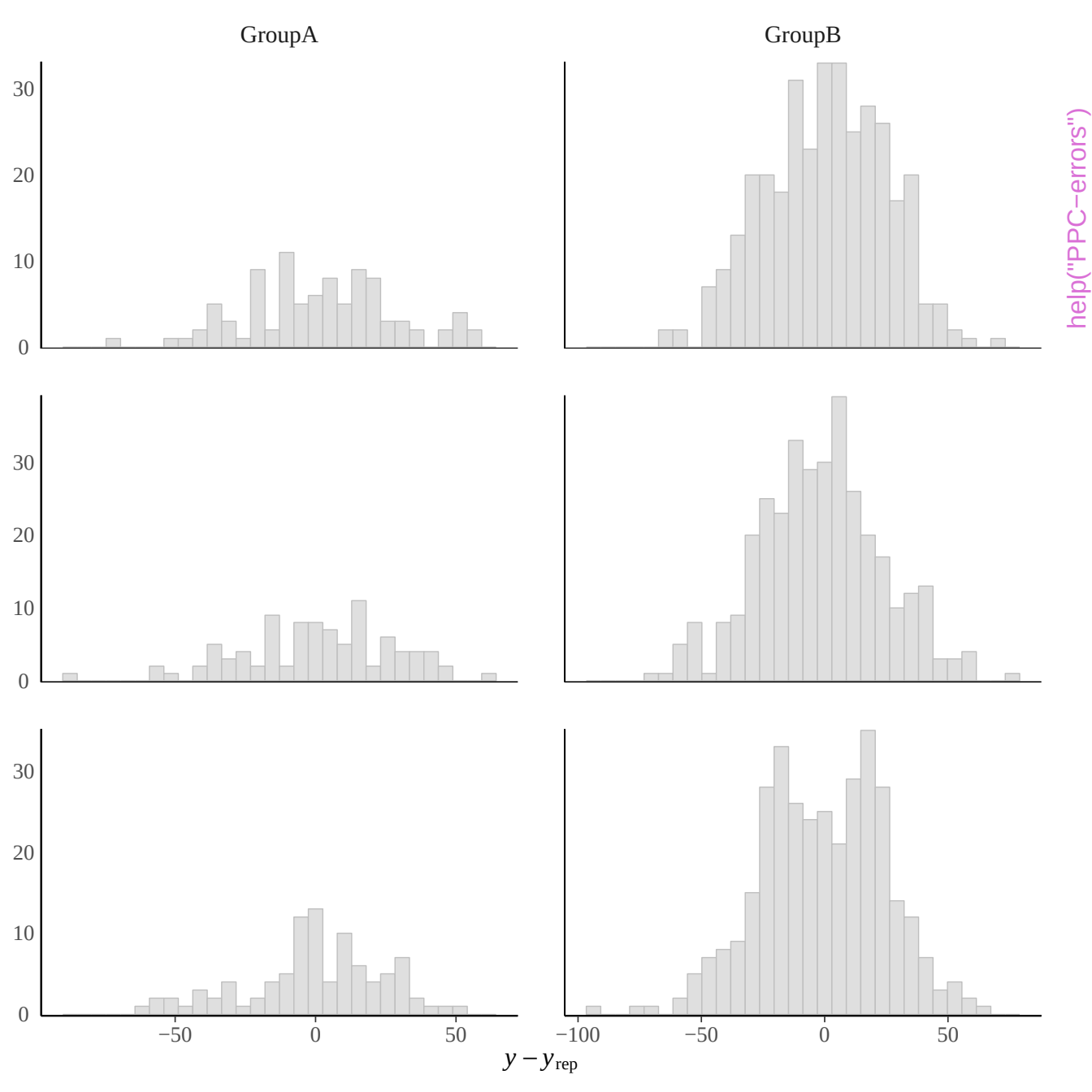

help("PPC-distributions")
y
y_{rep}
0
40
80
120
160
0
40
80
120
160

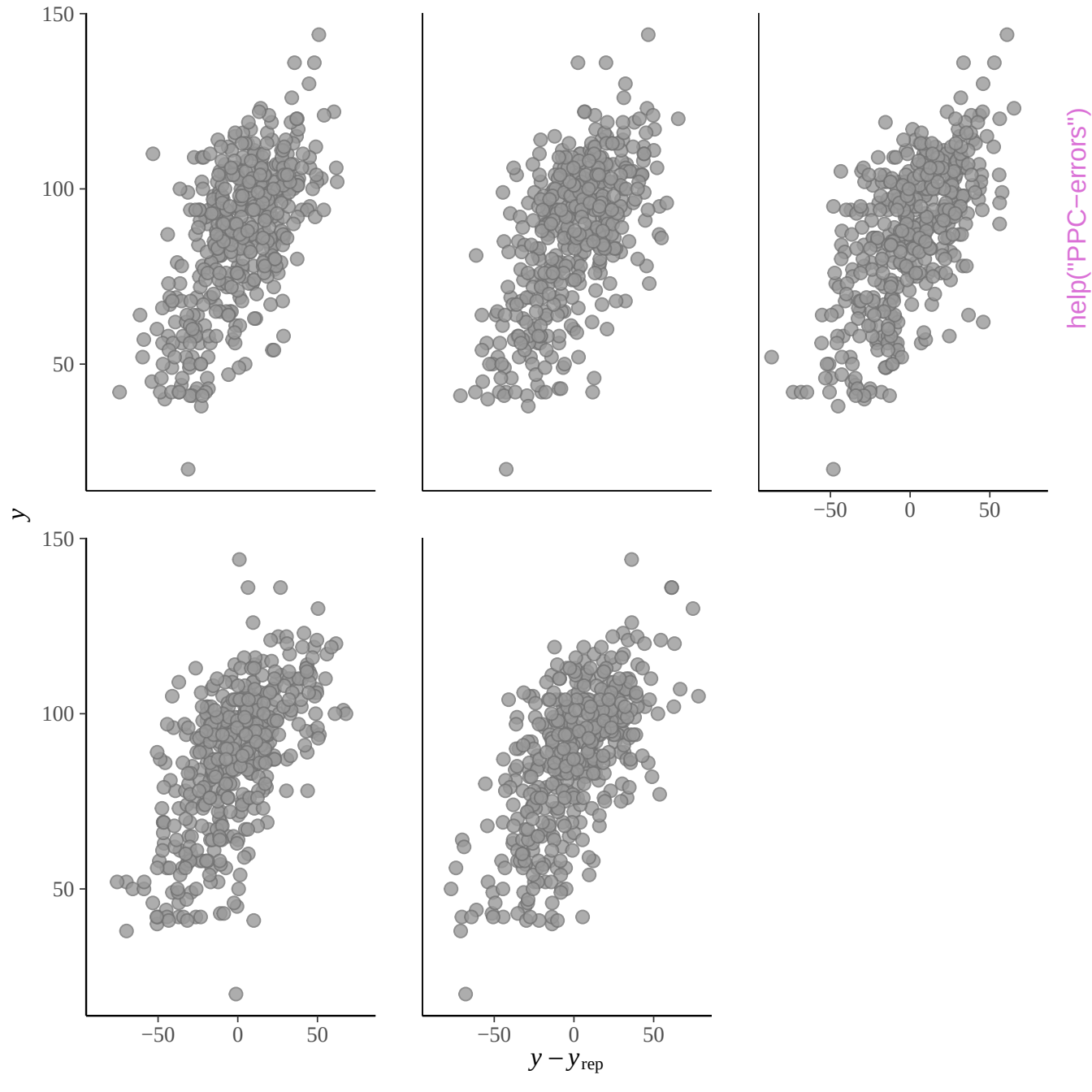

GroupA
GroupB
40
30
20
10
0
50
100
80
120
160
y
y_{rep}
help("PPC-distributions")

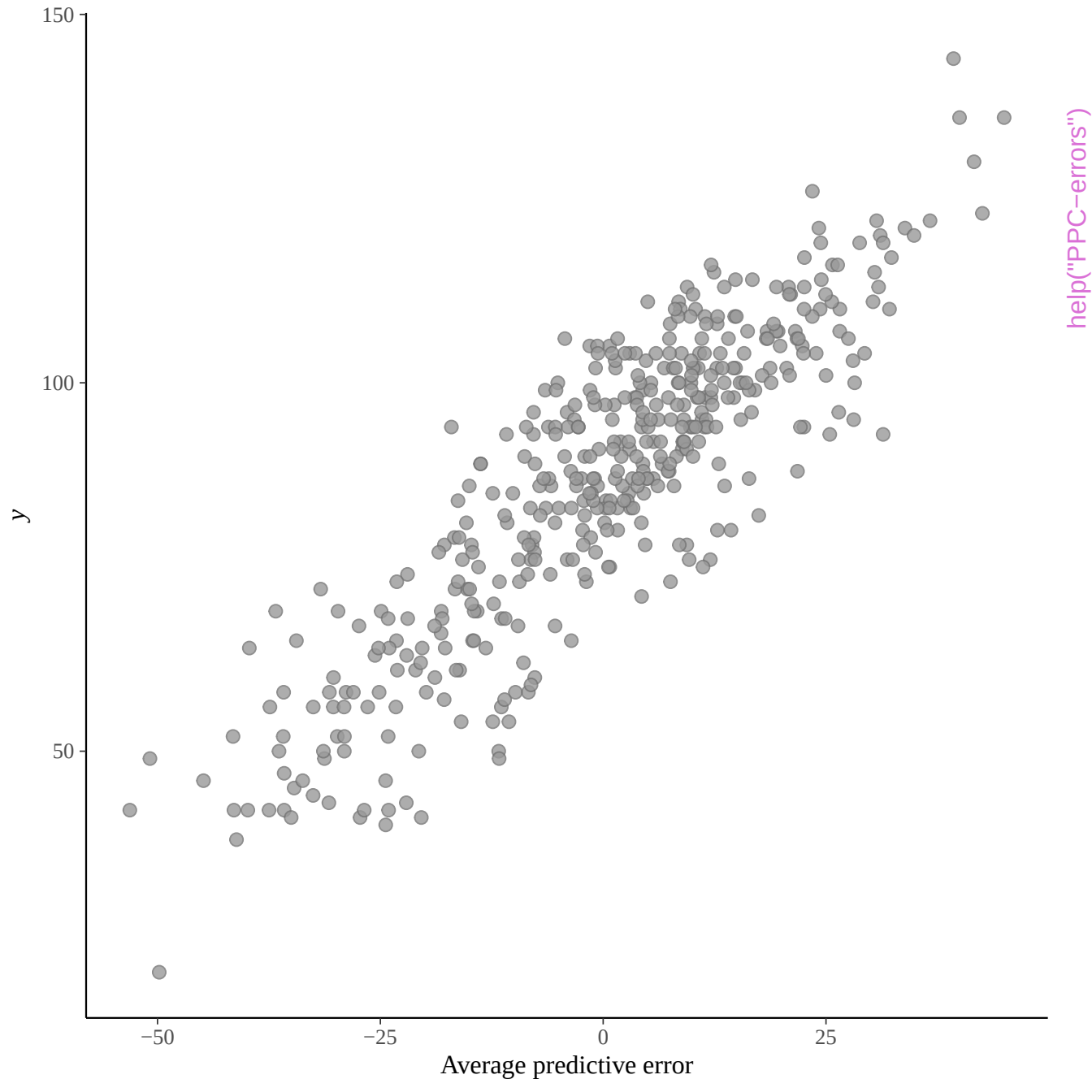

150
100
50
0
GroupA
GroupB
y
y rep
help("PPC−distributions")

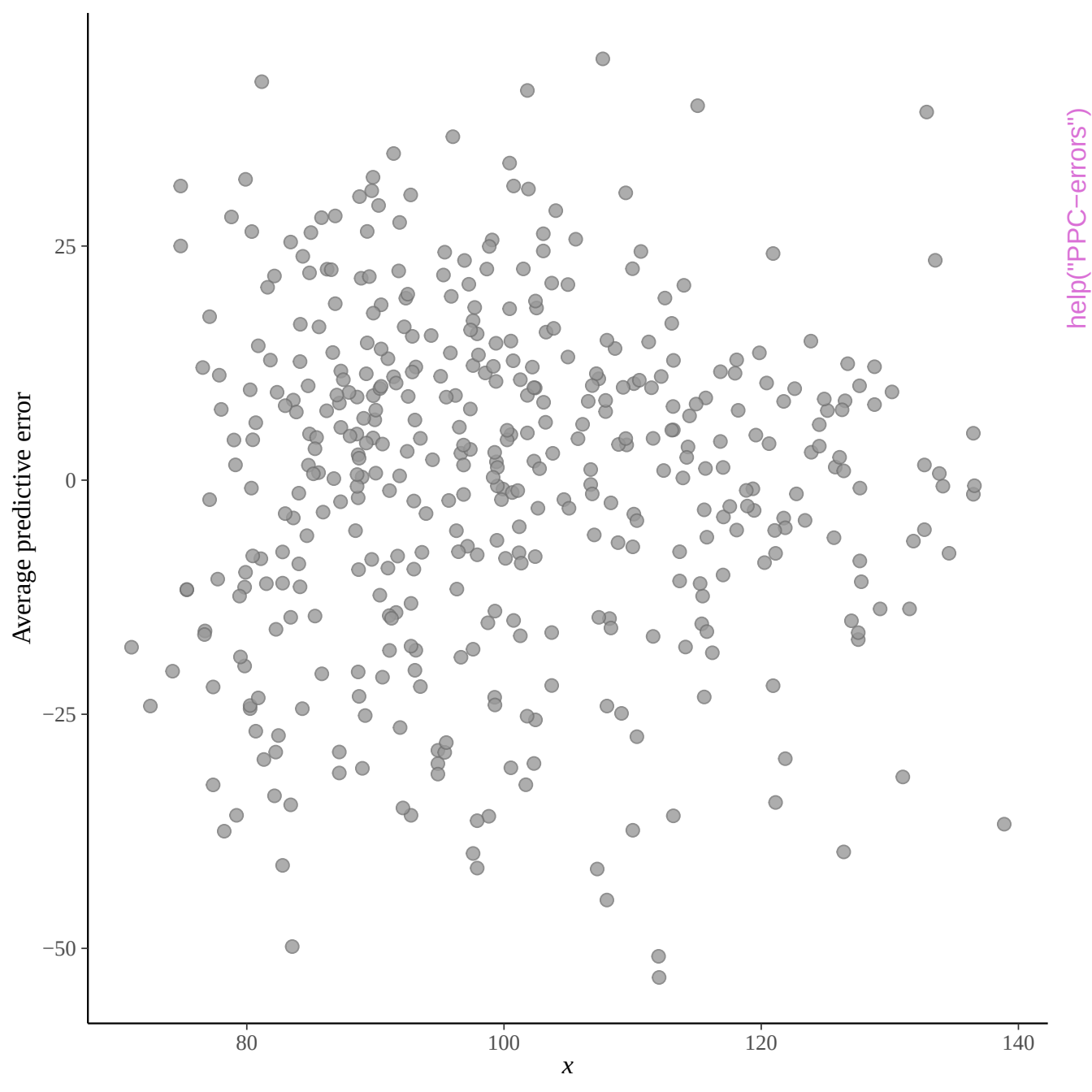

−100
−50
0
50
−100
−50
0
50
−100
−50
0
50
$y - y_{\text{rep}}$
help("PPC−errors")

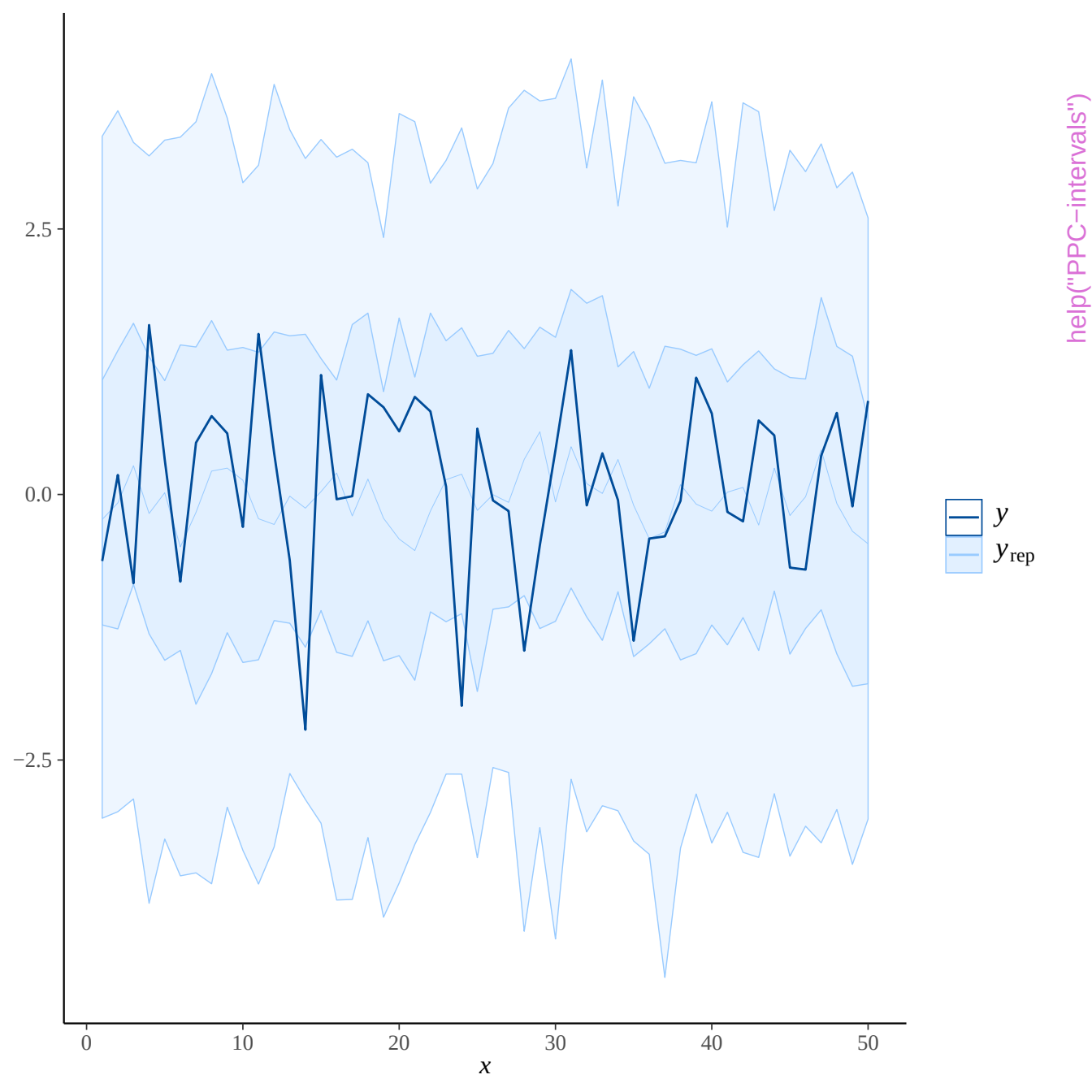

GroupA
GroupB
help("PPC−errors")
−50
0
50
−100
−50
0
50
$y - y_{\text{rep}}$

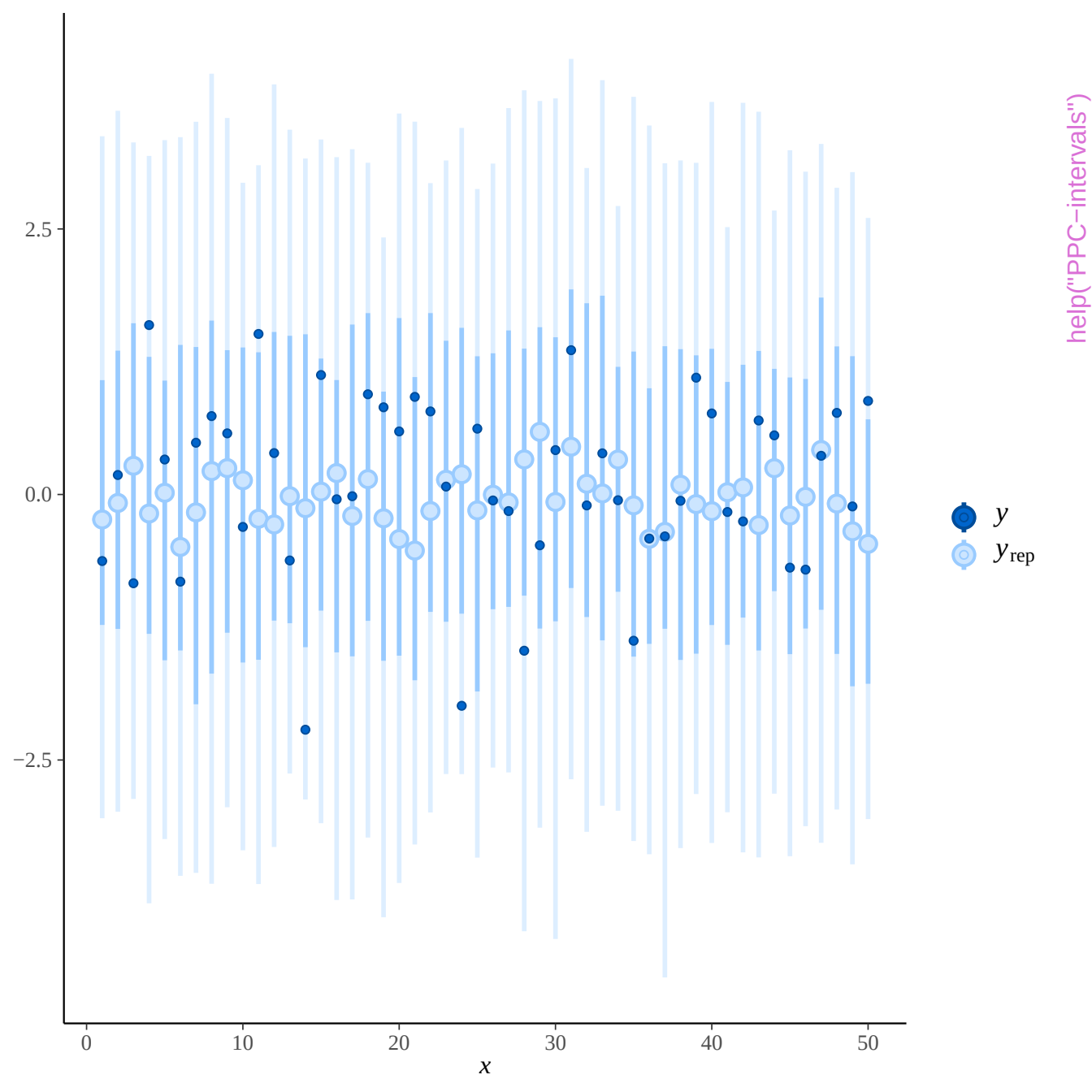

GroupA
GroupB
help("PPC−errors")
30
20
10
0
−50
0
50
−100
−50
0
50
$y - y_{rep}$

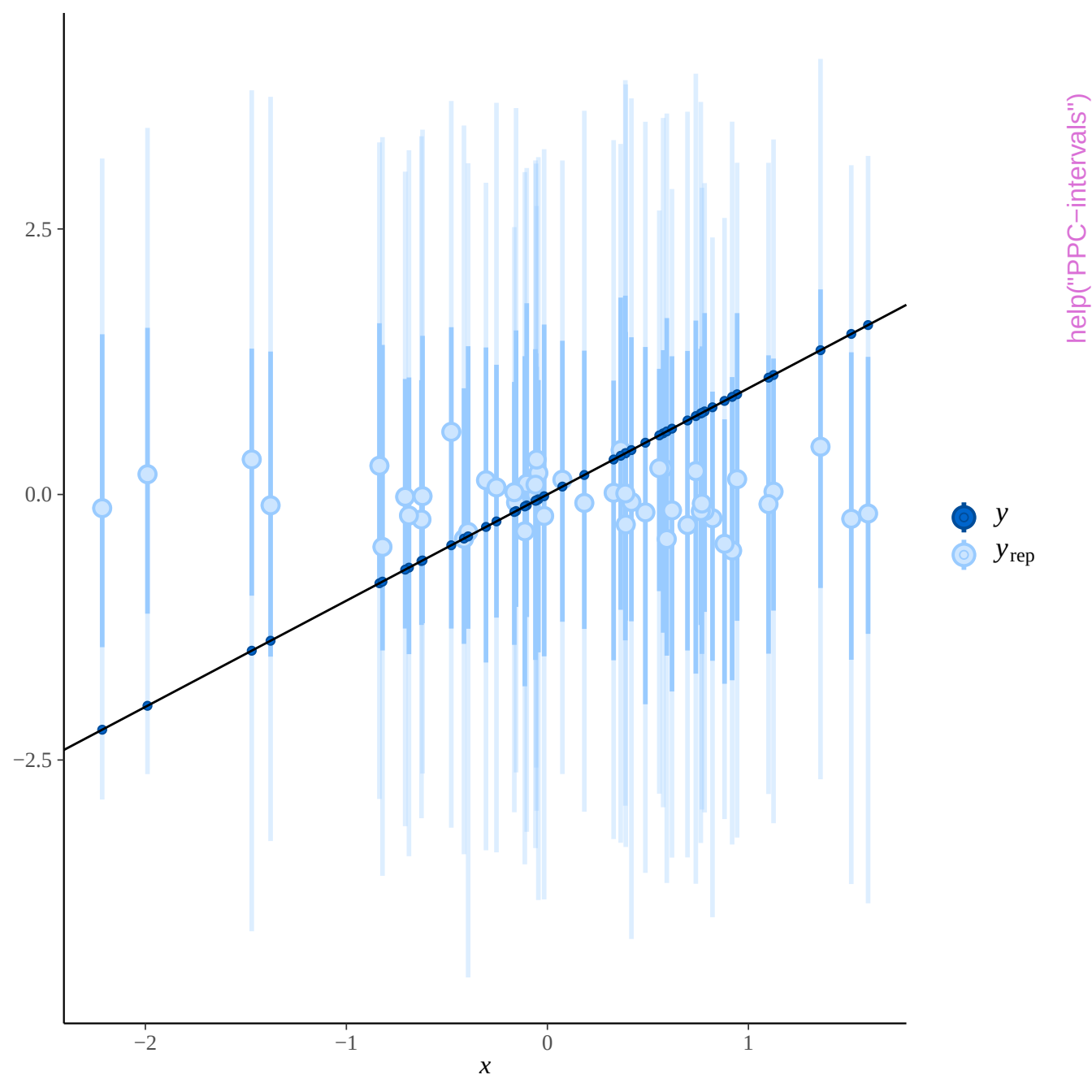

help("PPC−errors")
y
150
100
50
−50
0
50
$y - y_{rep}$

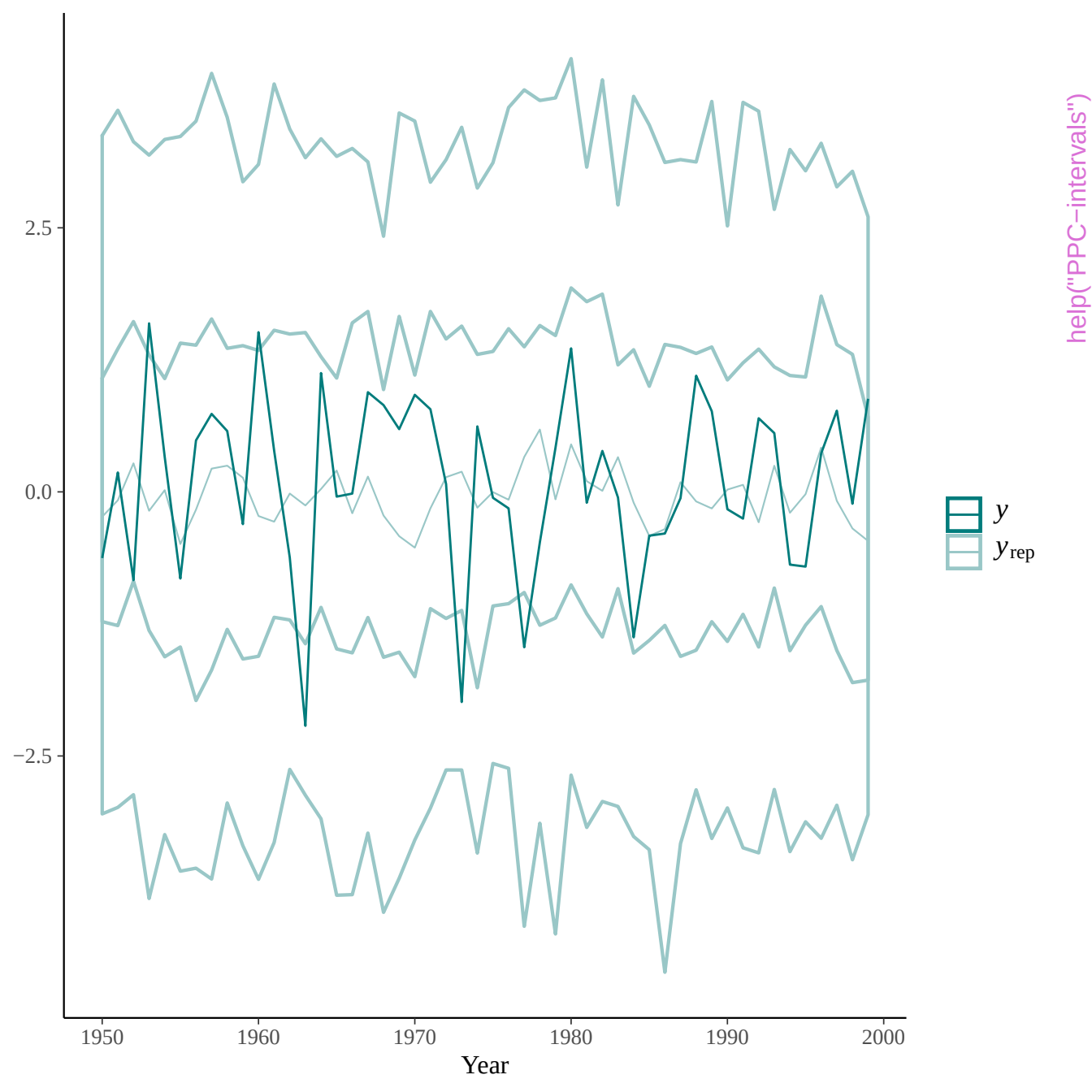

150
100
50
y
−50
−25
0
25
Average predictive error
help("PPC−errors")

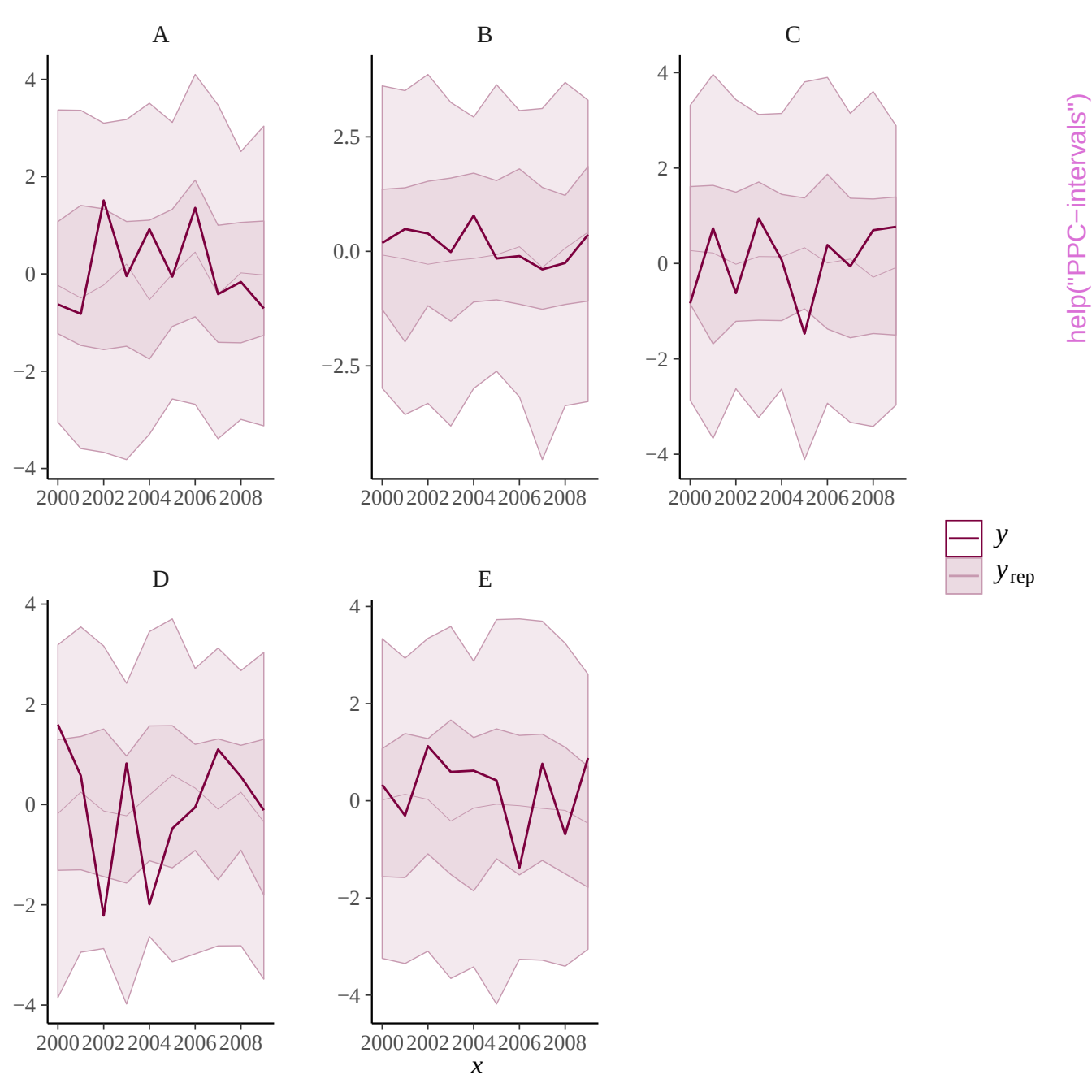

help("PPC−errors")
Average predictive error
25
0
−25
−50
80
100
120
140
x

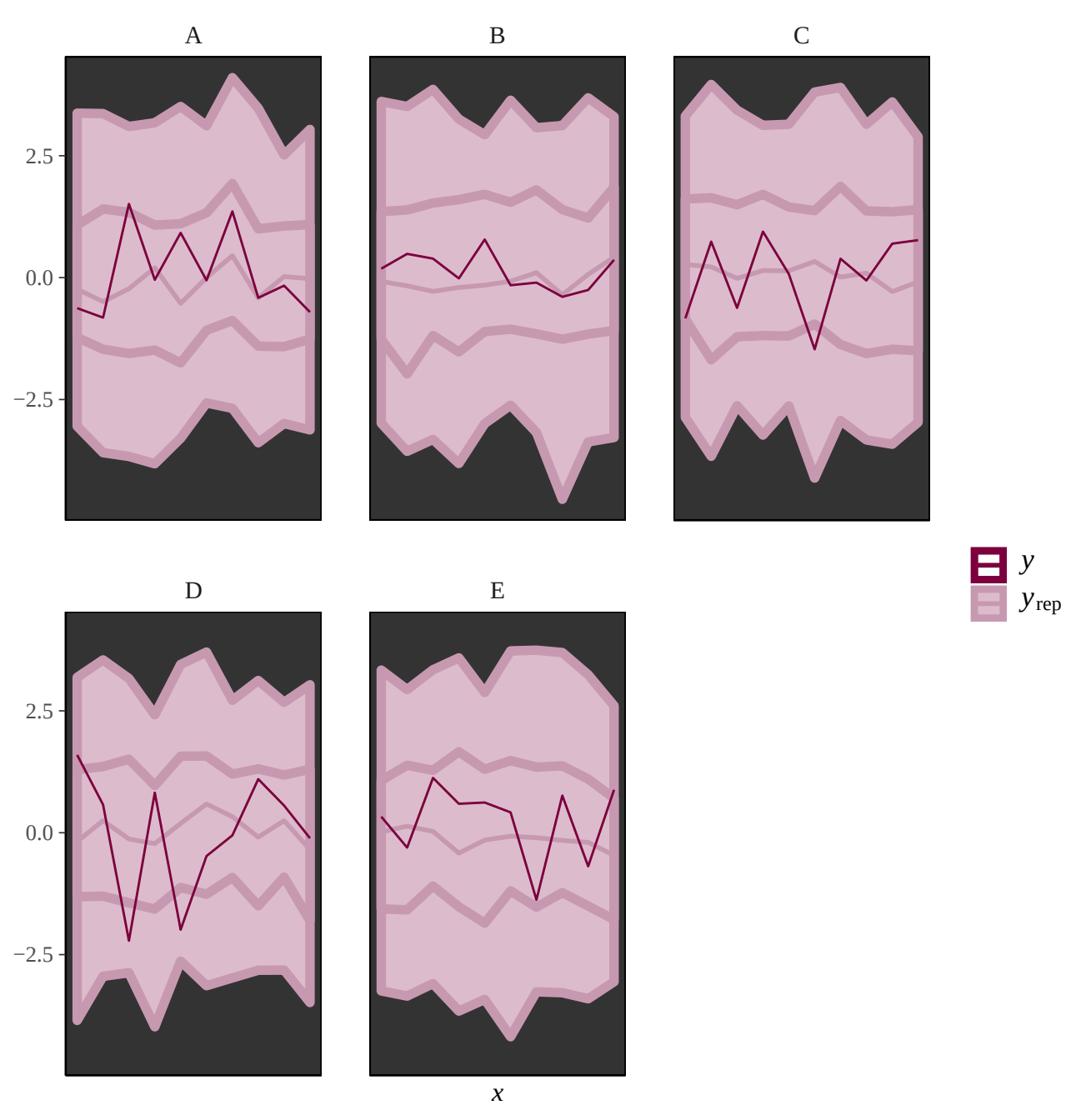

2.5
0.0
−2.5
0
10
20
30
40
50
x
y
y_{rep}
help("PPC−intervals")

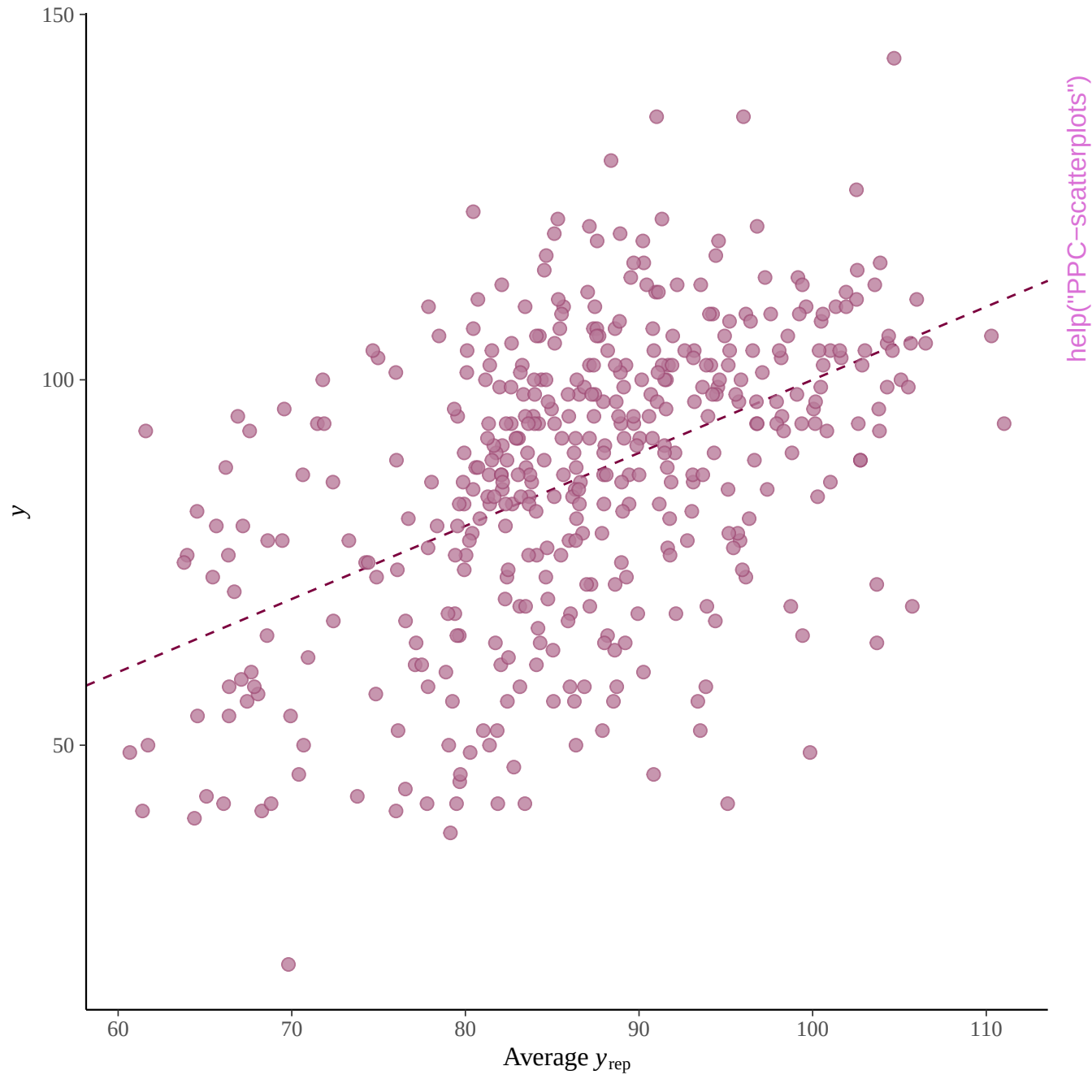

2.5
0.0
−2.5
0
10
20
30
40
50
x
y
y_{rep}
help("PPC−intervals")

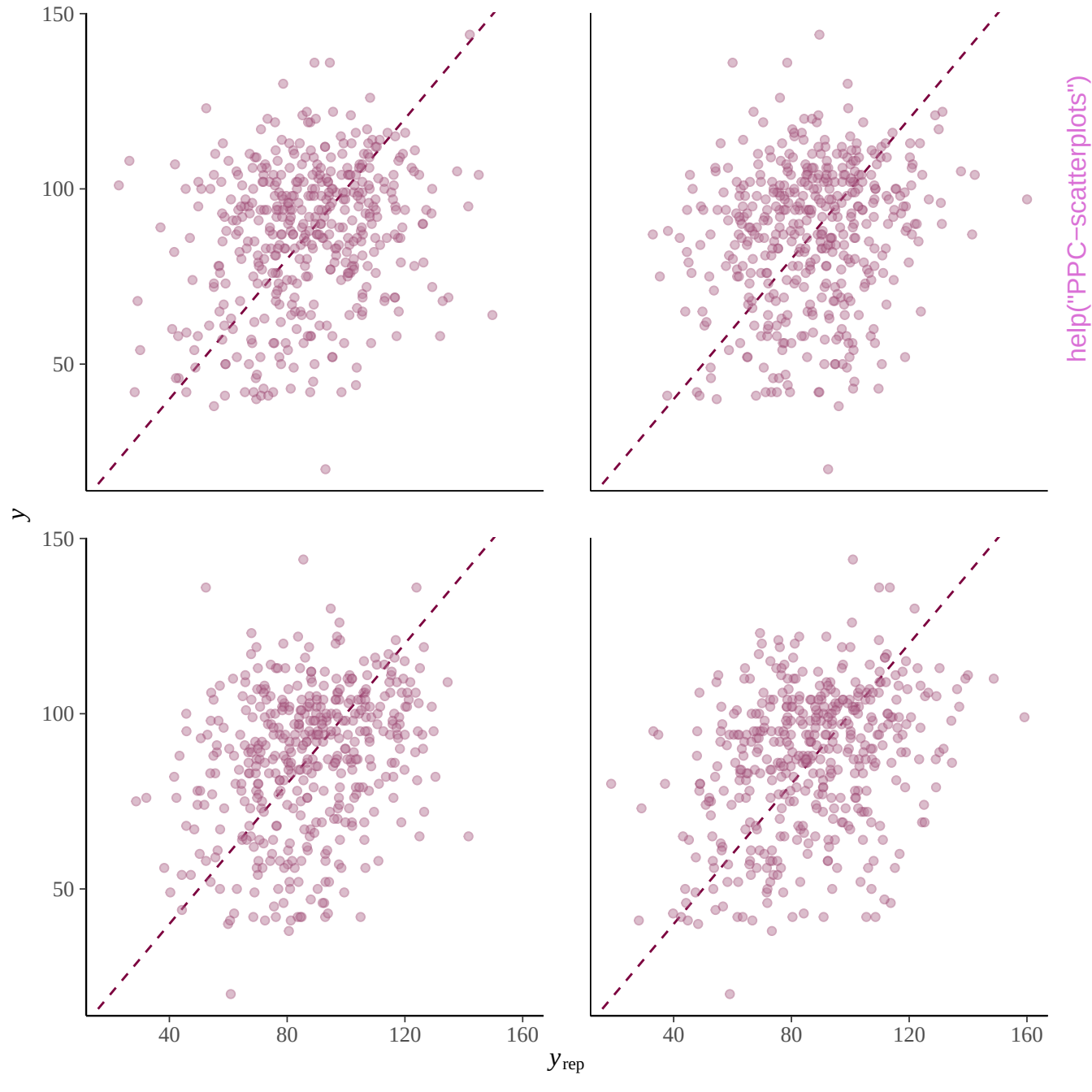

help("PPC-intervals")
2.5
0.0
−2.5
−2
−1
0
1
x
y
y_{rep}

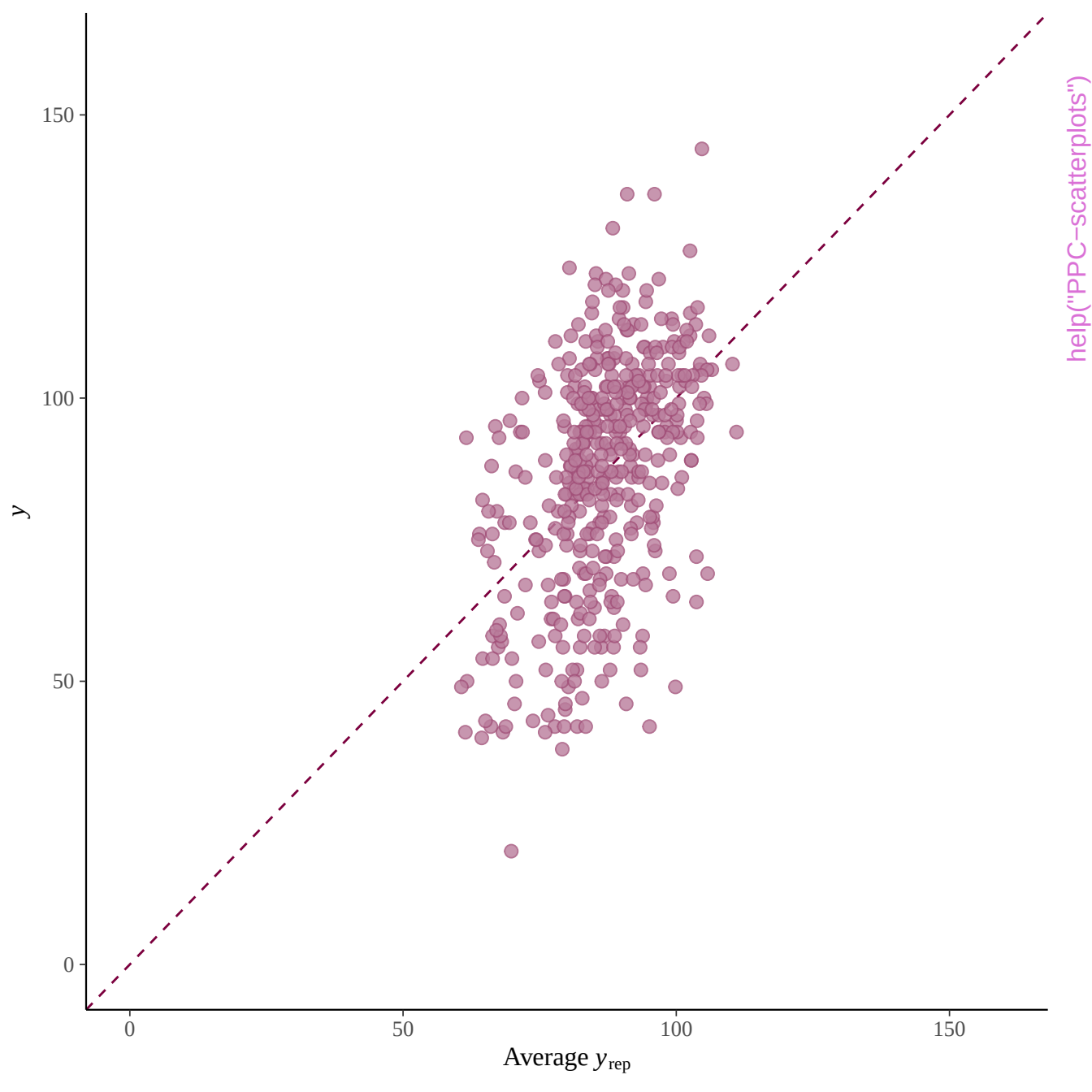

2.5
0.0
−2.5
1950
1960
1970
1980
1990
2000
Year
y
y rep
help("PPC−intervals")

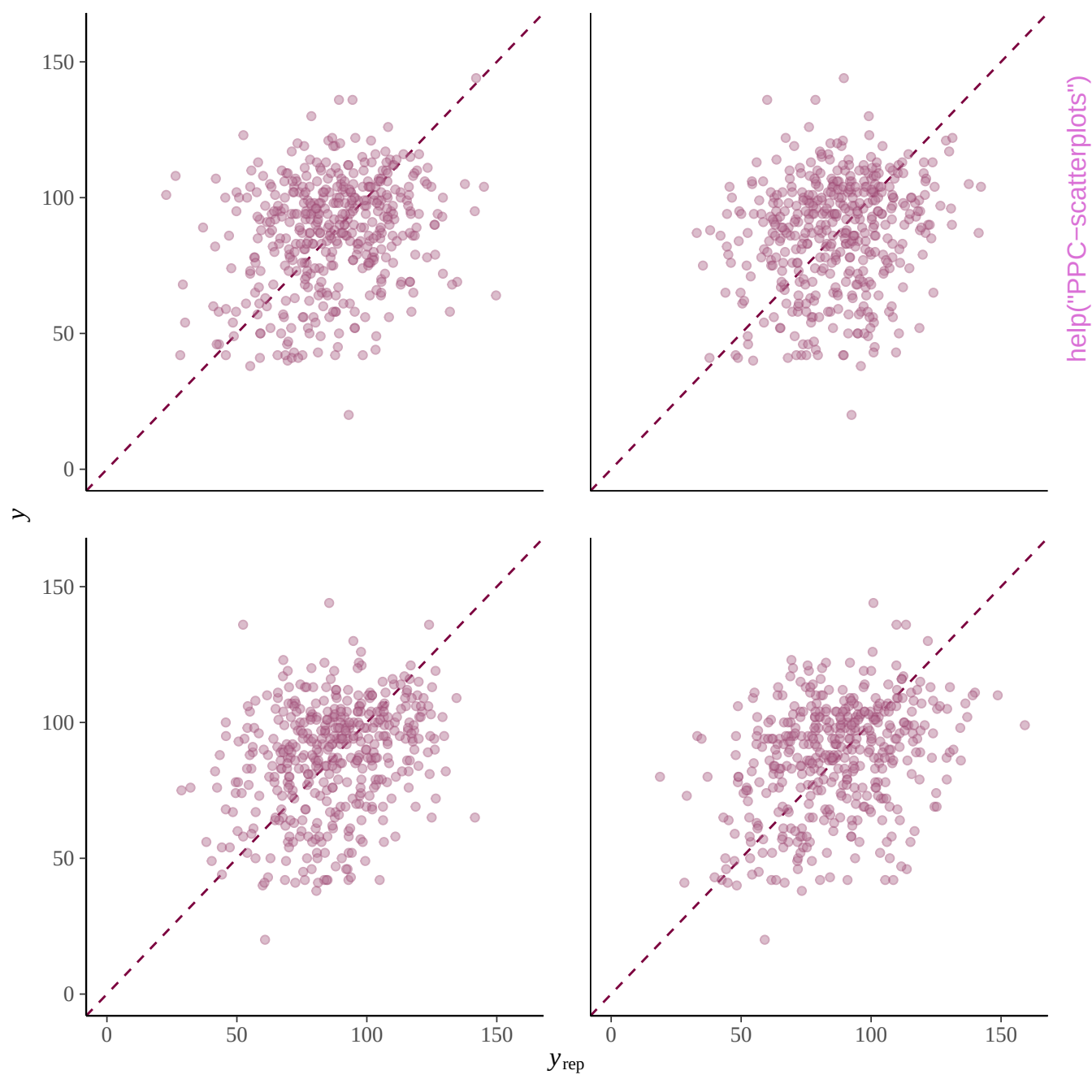

A
B
C
D
E
4
2
0
−2
−4
2.5
0.0
−2.5
2000
2002
2004
2006
2008
x
y
y_{rep}
help("PPC−intervals")

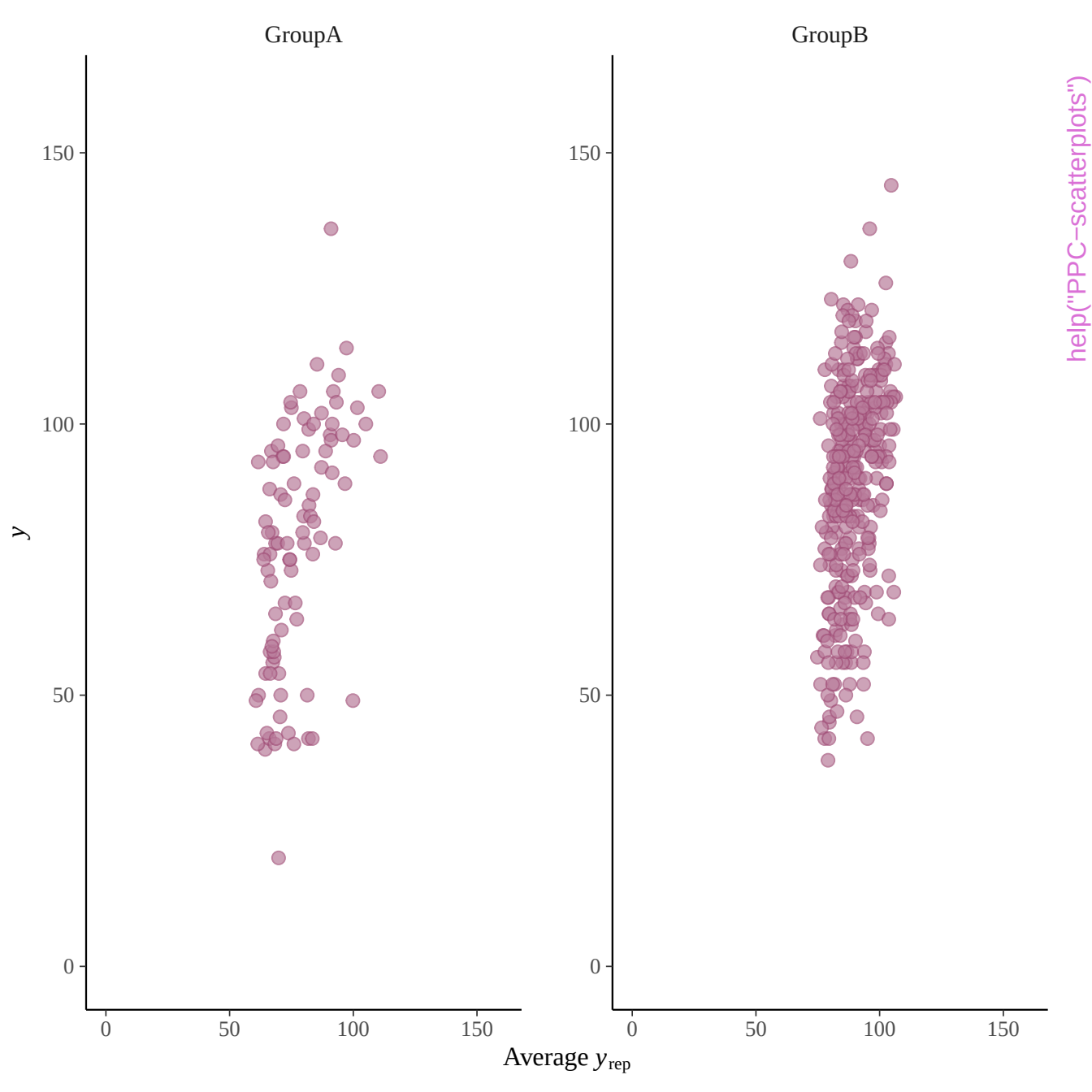

A
B
C
D
E
2.5
0.0
−2.5
x
y
y_{rep}
help("PPC-intervals")

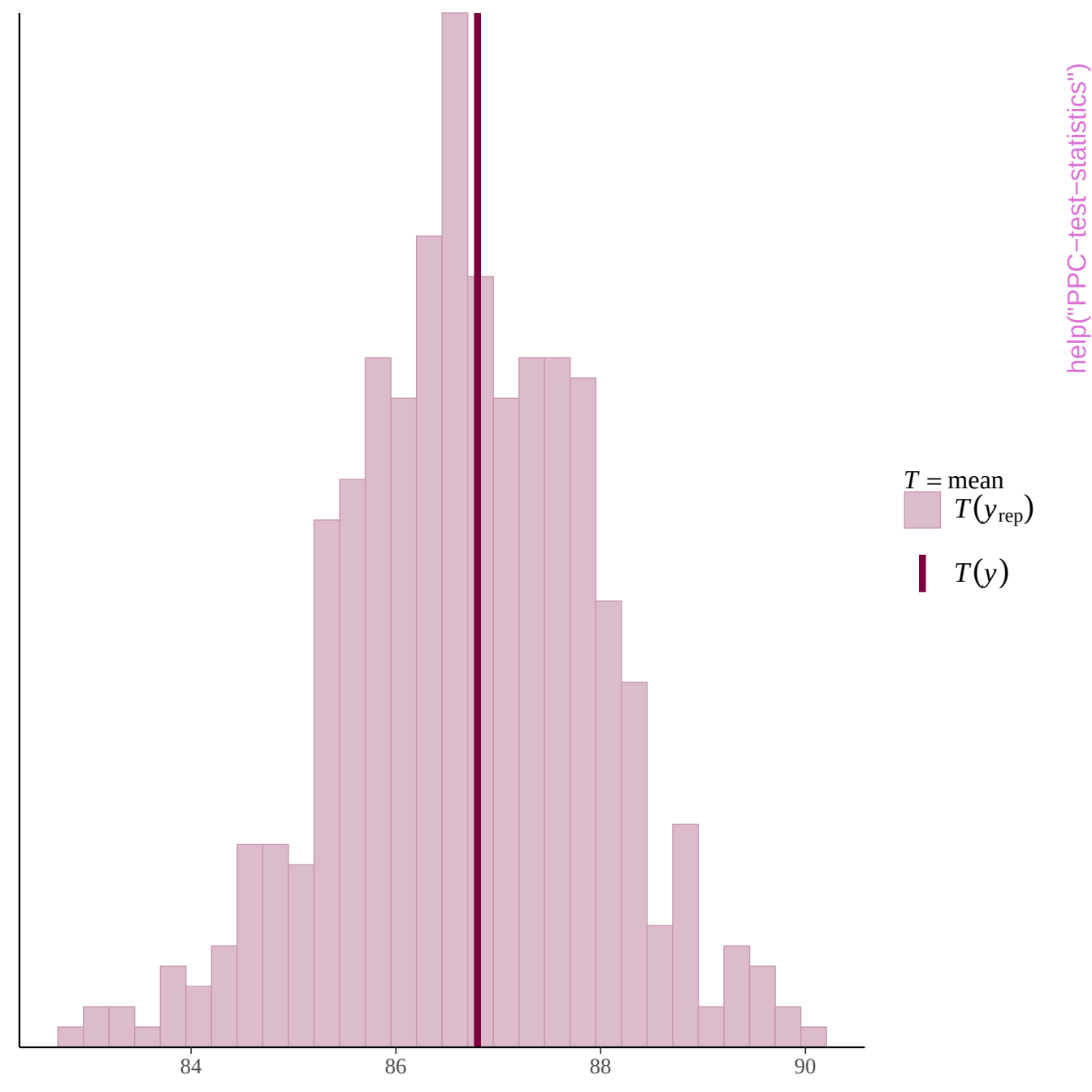

150
100
50
y
60
70
80
90
100
110
Average y_{rep}
help("PPC-scatterplots")

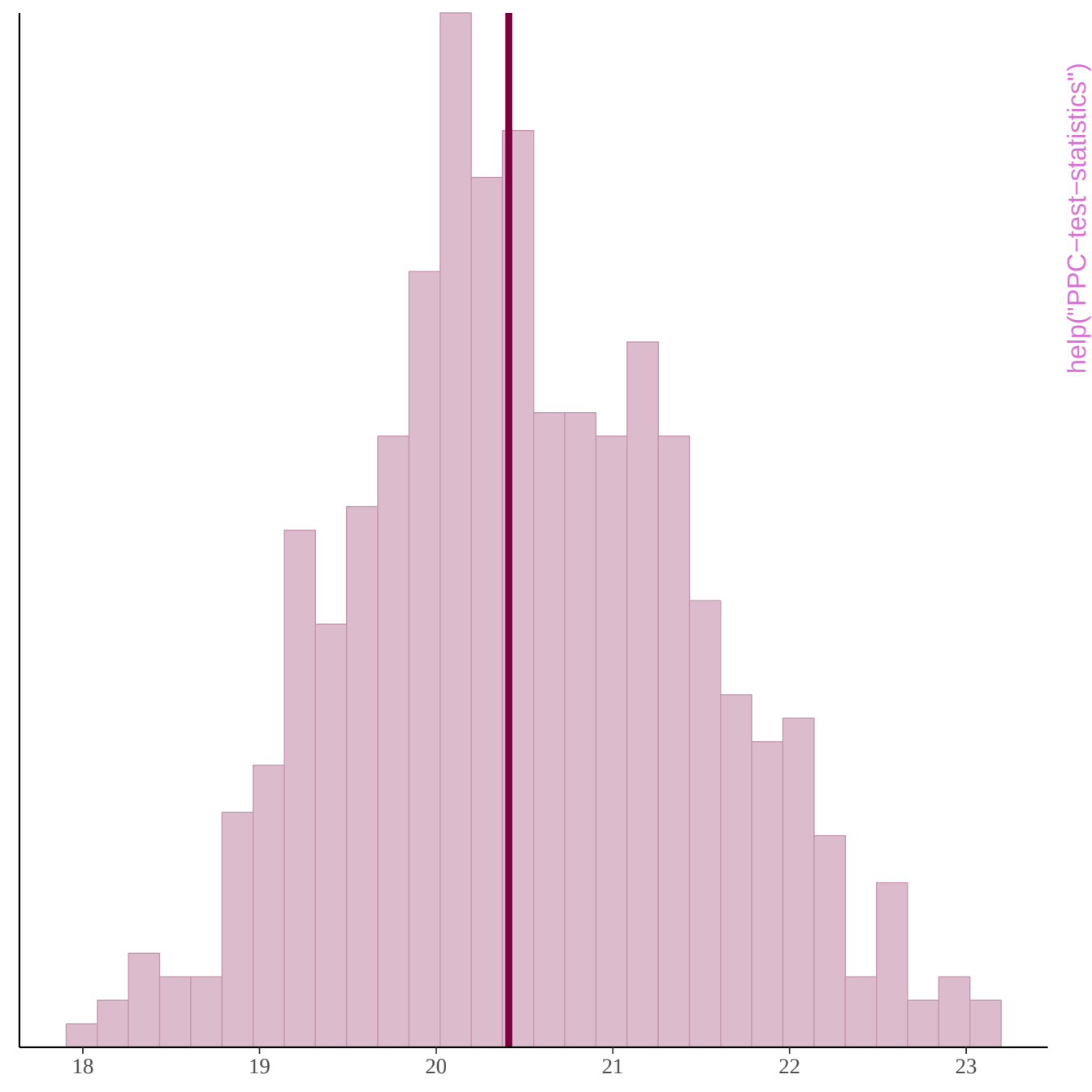

150
100
50
y
150
100
50
40
80
120
160
40
80
120
160
y_{rep}
help("PPC−scatterplots")

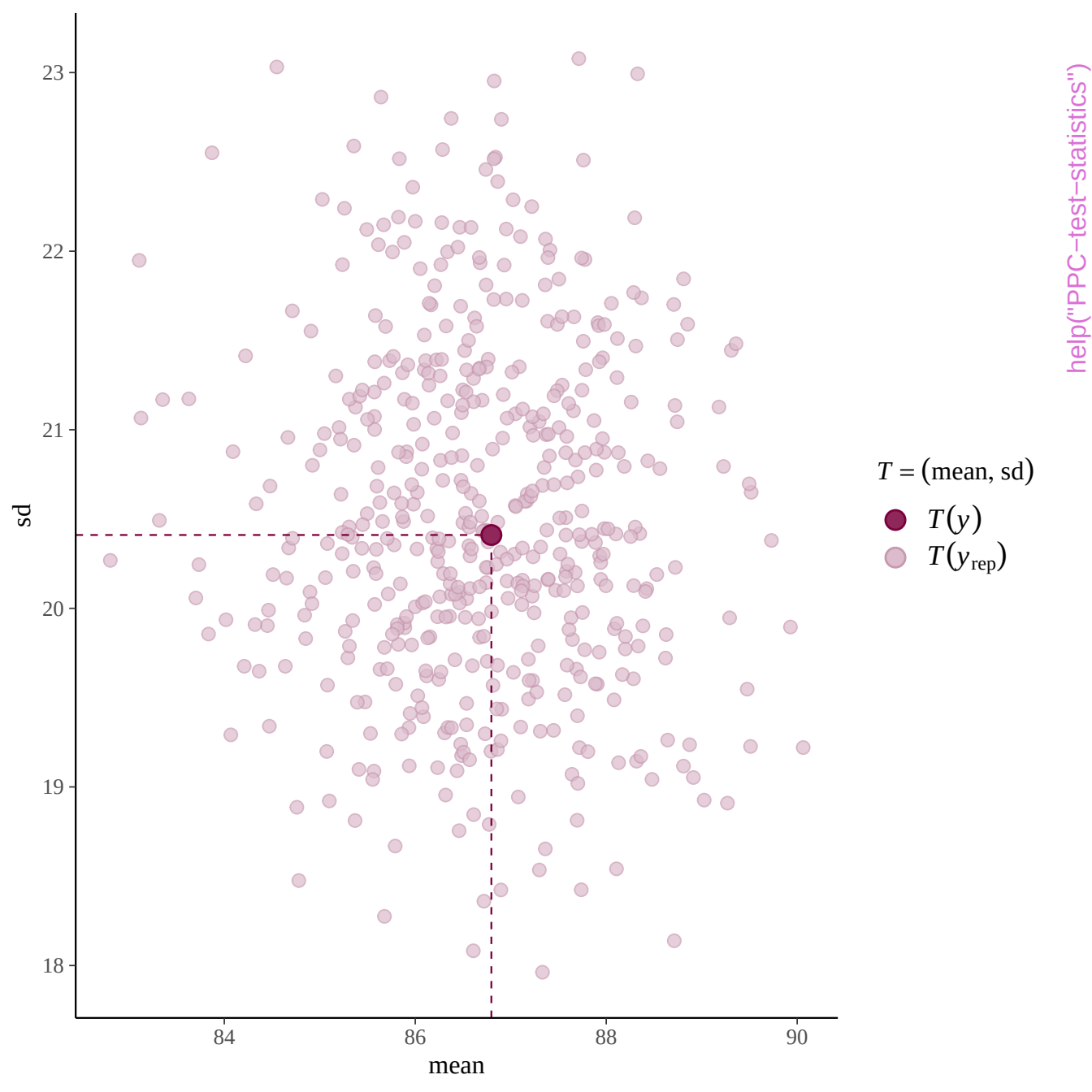

150
100
50
0
y
0
50
100
150
Average y_{rep}
help("PPC-scatterplots")

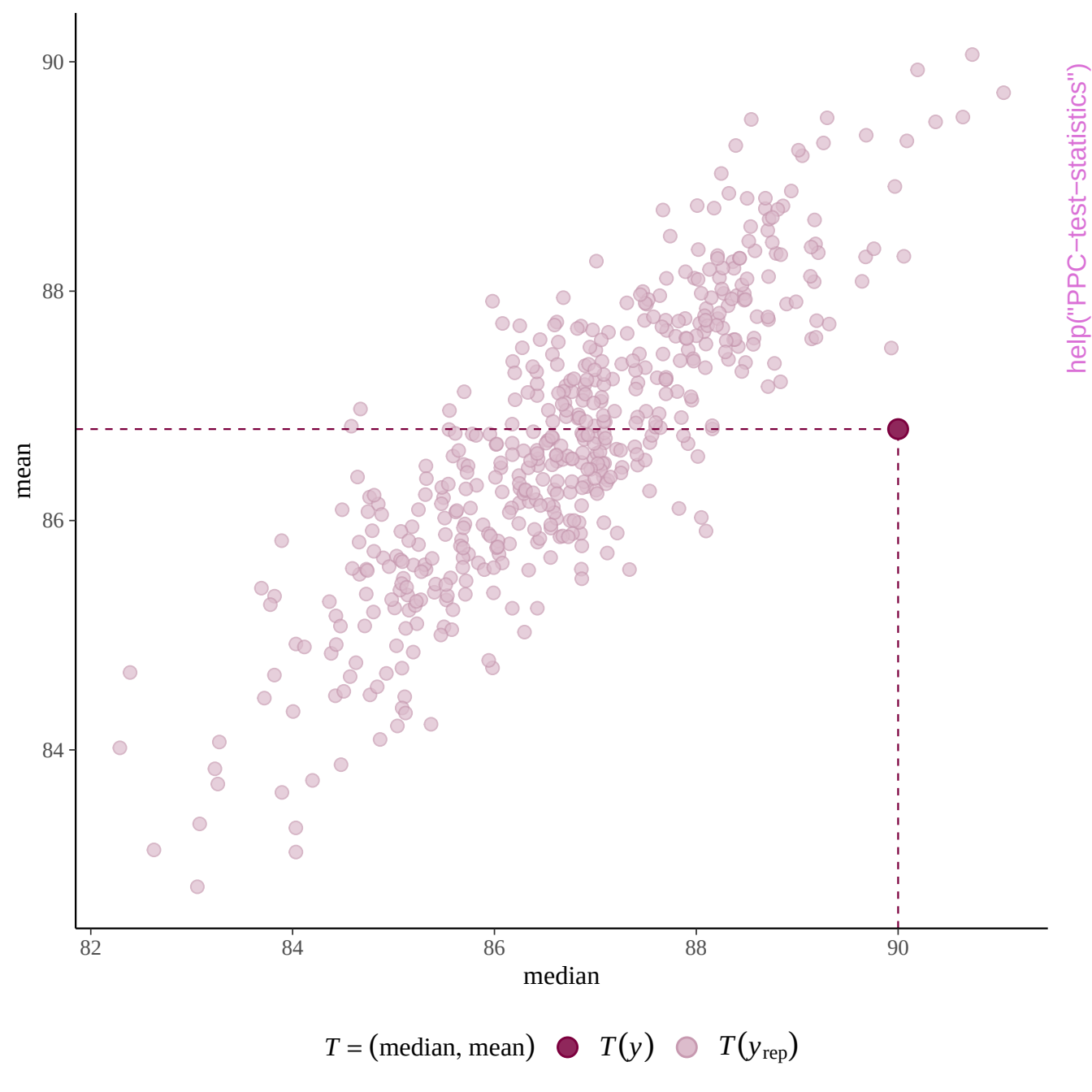

help("PPC−scatterplots")
y
y_{rep}
0
50
100
150

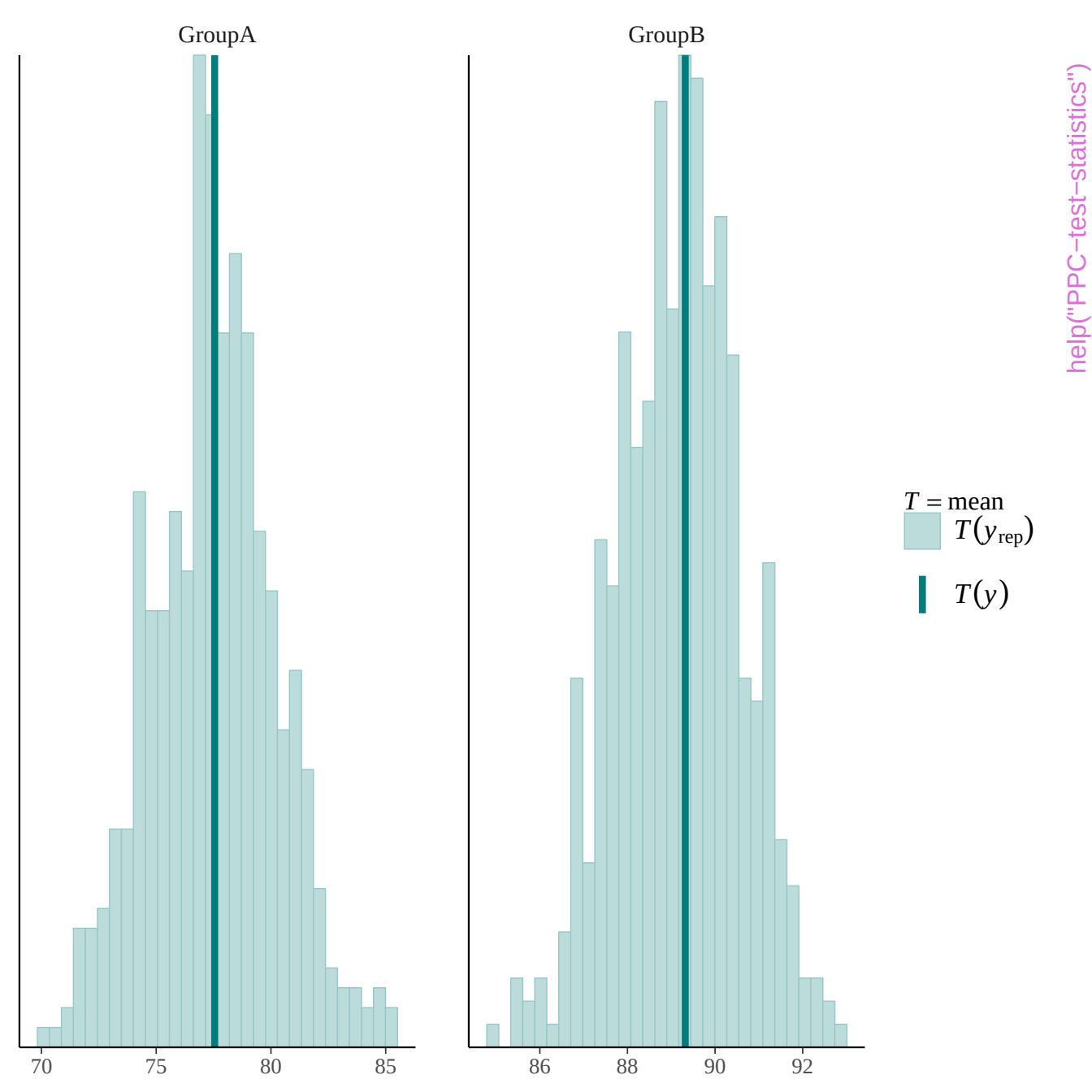

GroupA
GroupB
150
100
50
0
y
0
50
100
150
Average y_{rep}
help("PPC-scatterplots")

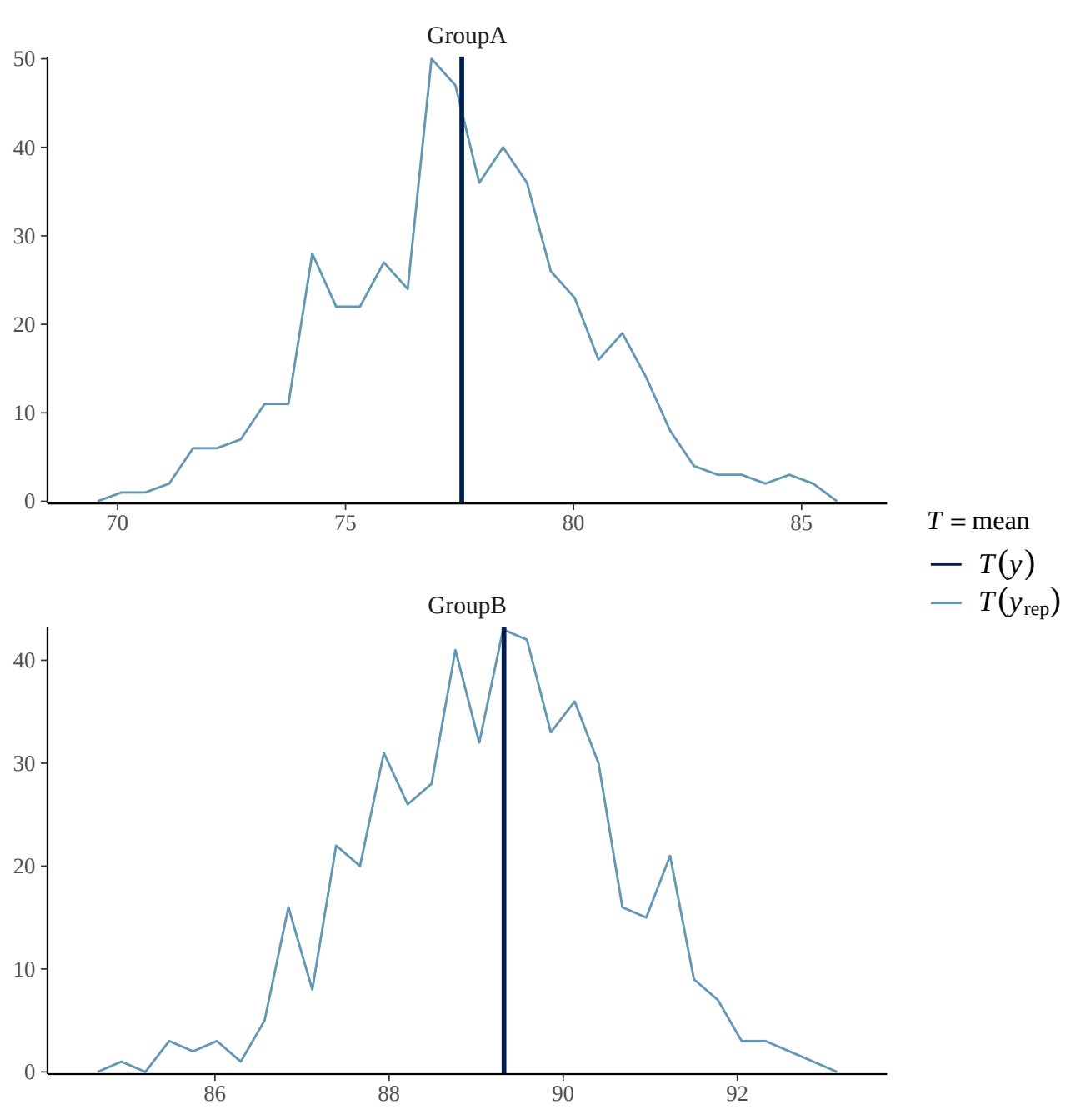

help("PPC−test−statistics")
T = mean
T(y_rep)
T(y)
84
86
88
90

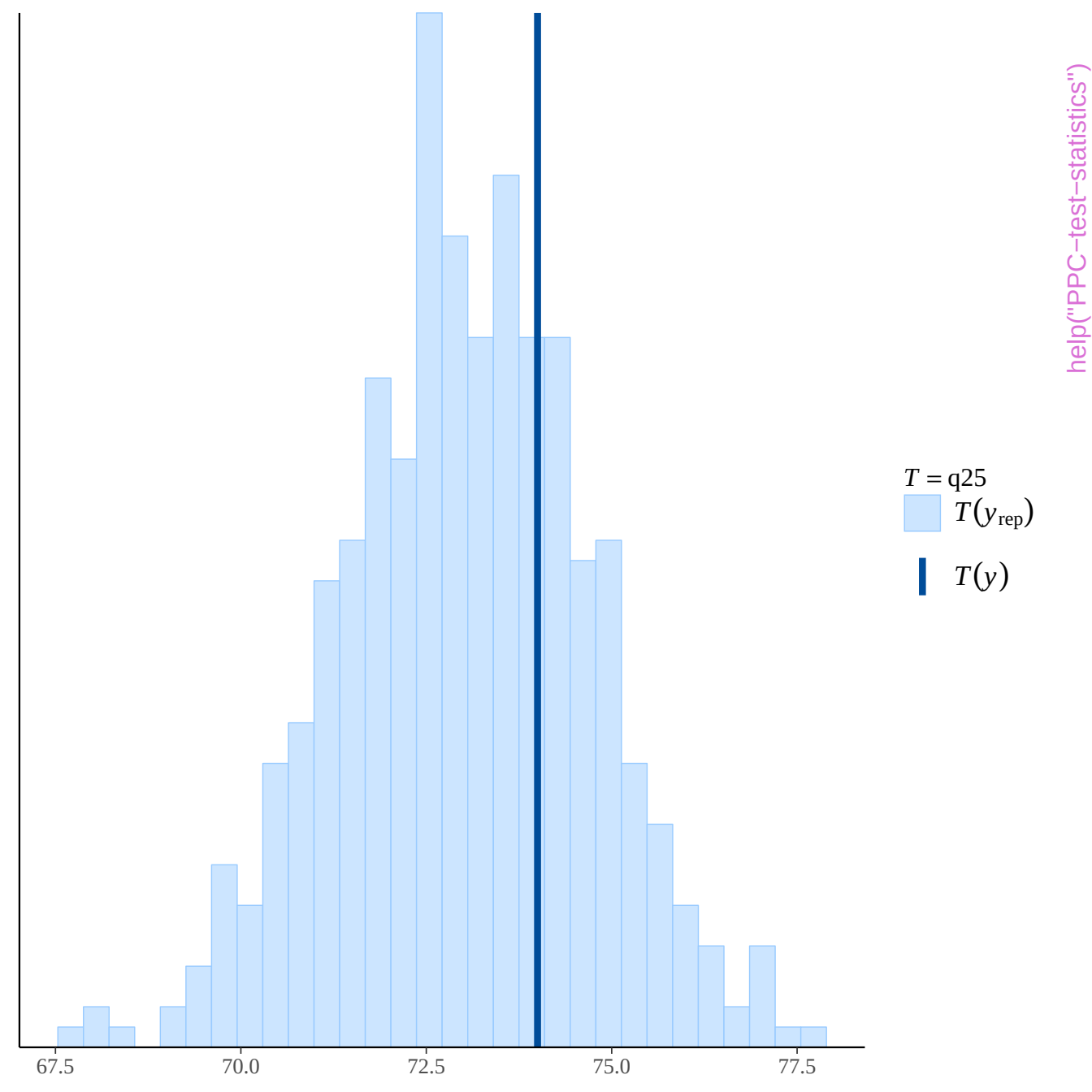

18
19
20
21
22
23
help("PPC-test-statistics")

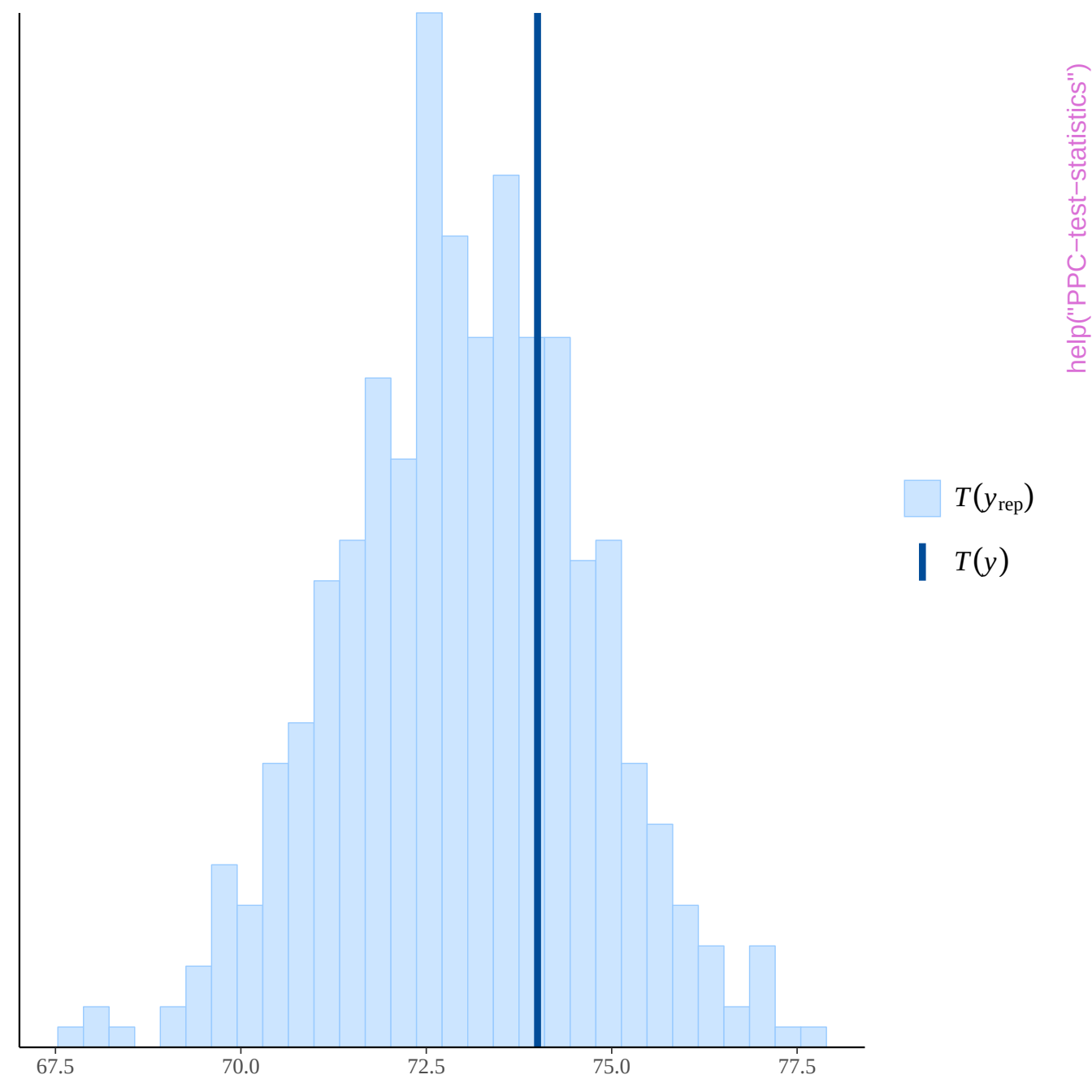

23
22
21
20
19
18
sd
84
86
88
90
mean
$T = (\text{mean, sd})$
$T(y)$
$T(y_{\text{rep}})$
help("PPC−test−statistics")

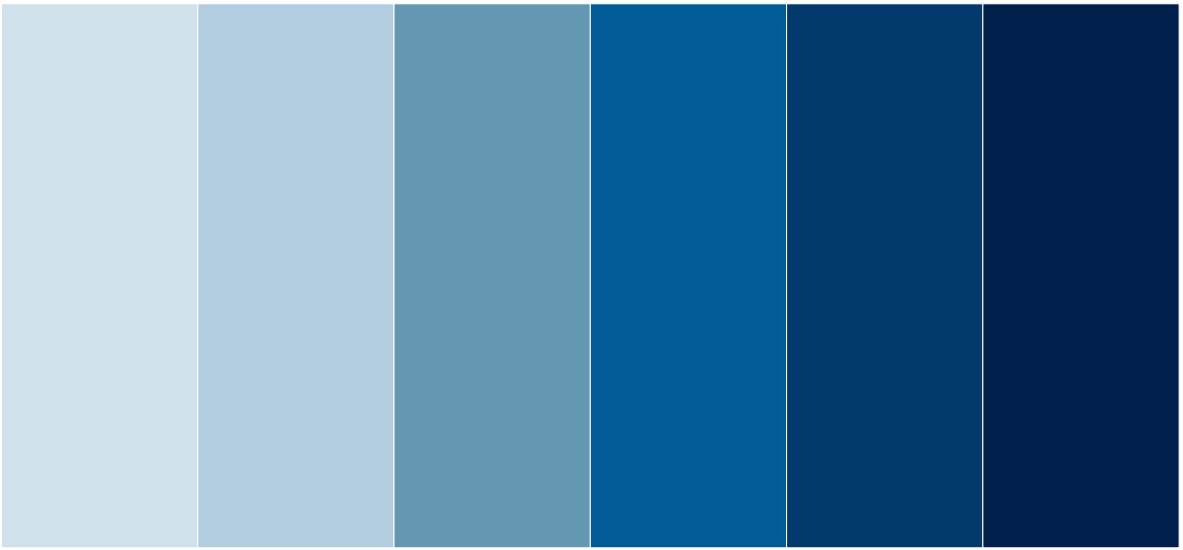

90
88
86
84
mean
82
84
86
88
90
median
help("PPC−test−statistics")
$T = (\text{median, mean})$
$T(y)$
$T(y_{\text{rep}})$


GroupA
GroupB
70
75
80
85
86
88
90
92
T = mean
$T(y_{rep})$
$T(y)$
help("PPC−test−statistics")

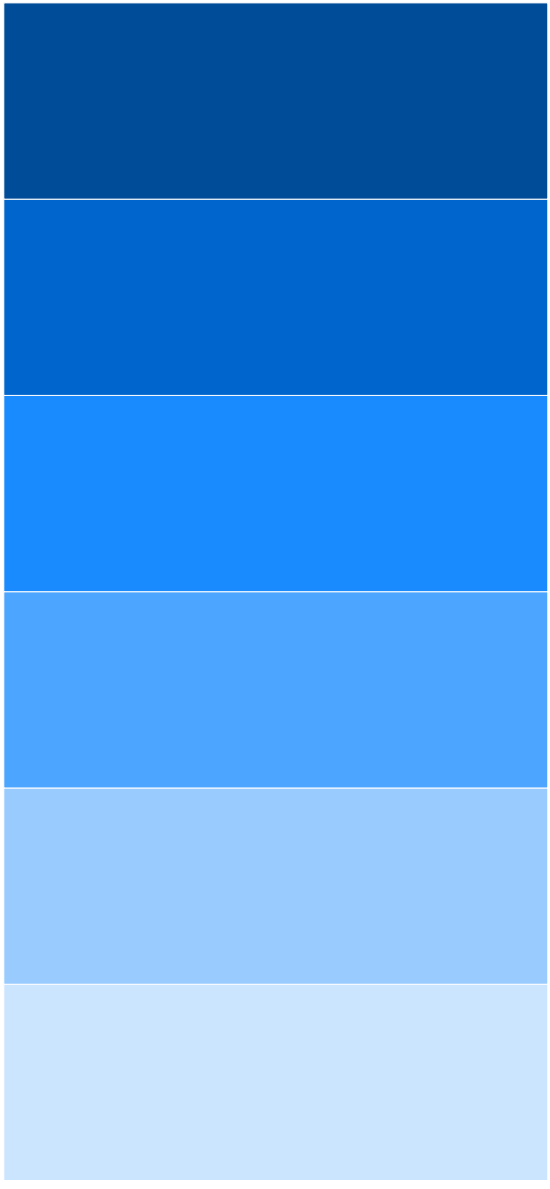

GroupA
50
40
30
20
10
0
70
75
80
85
GroupB
40
30
20
10
0
86
88
90
92
T = mean
$T(y)$
$T(y_{\text{rep}})$
help("PPC−test−statistics")


help("PPC−test−statistics")
T = q25
T(y_rep)
T(y)
67.5
70.0
72.5
75.0
77.5


help("PPC-test-statistics")
$T(y_{rep})$
$T(y)$
67.5
70.0
72.5
75.0
77.5

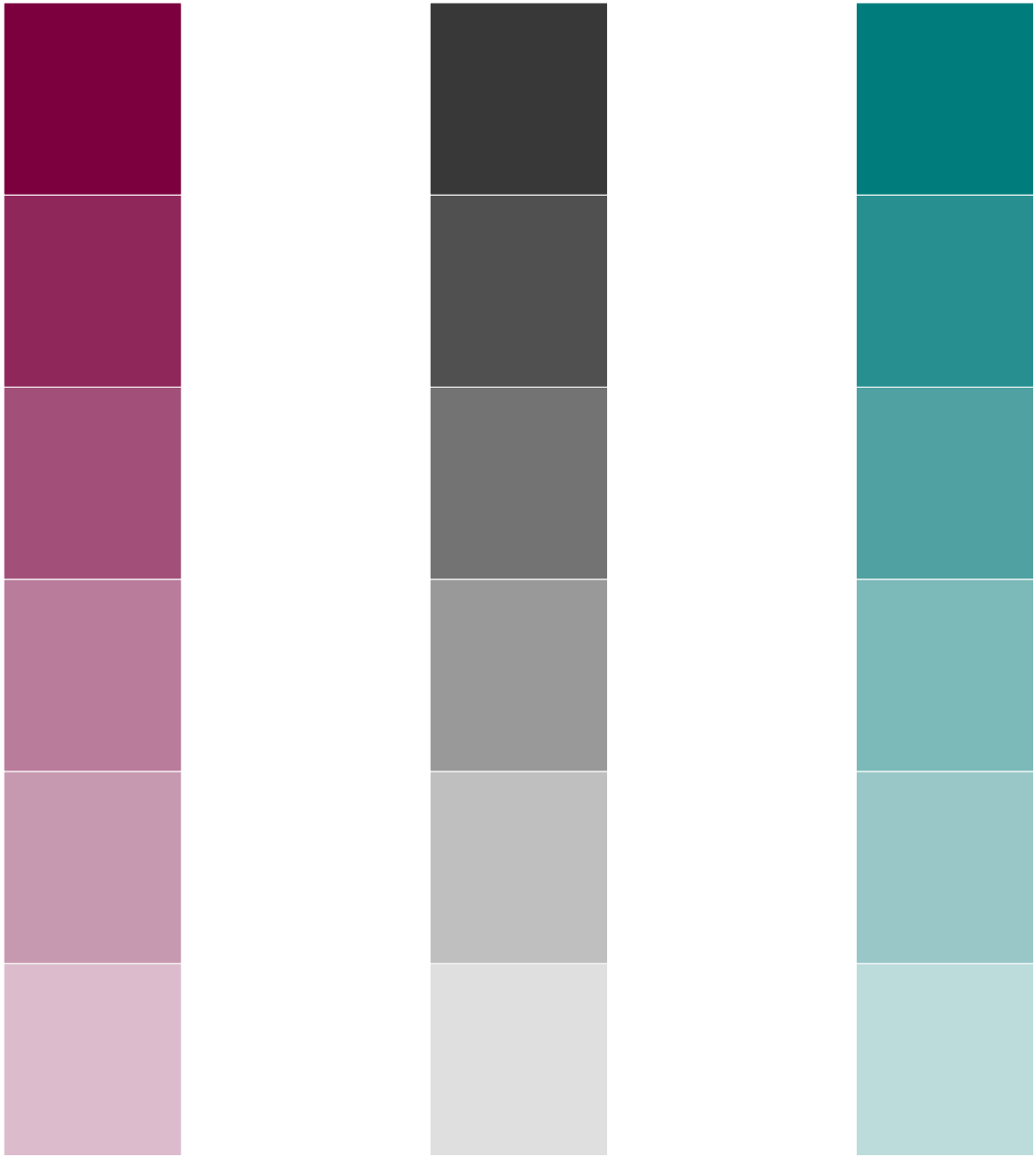


help("bayesplot−colors")

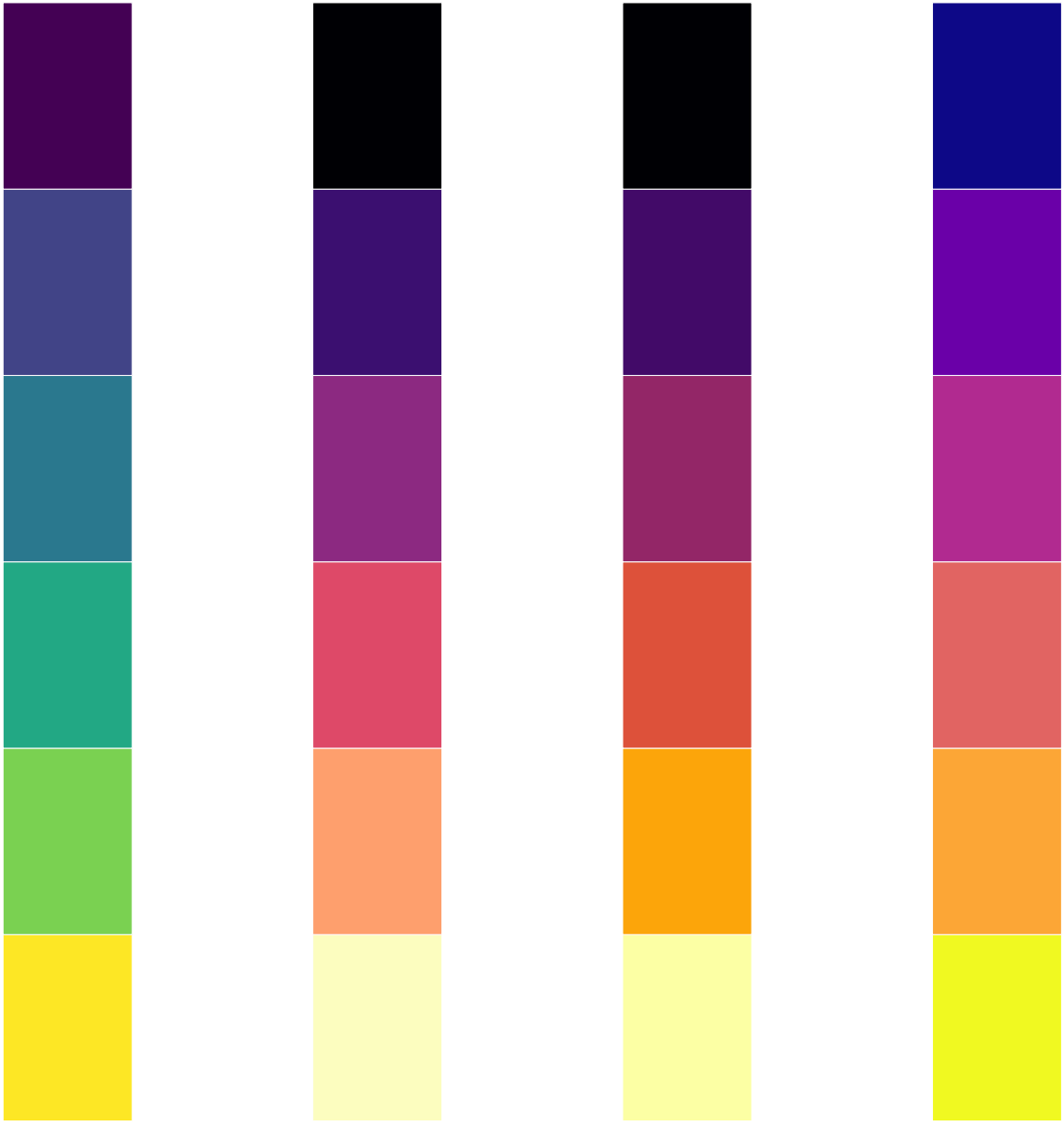


brightblue

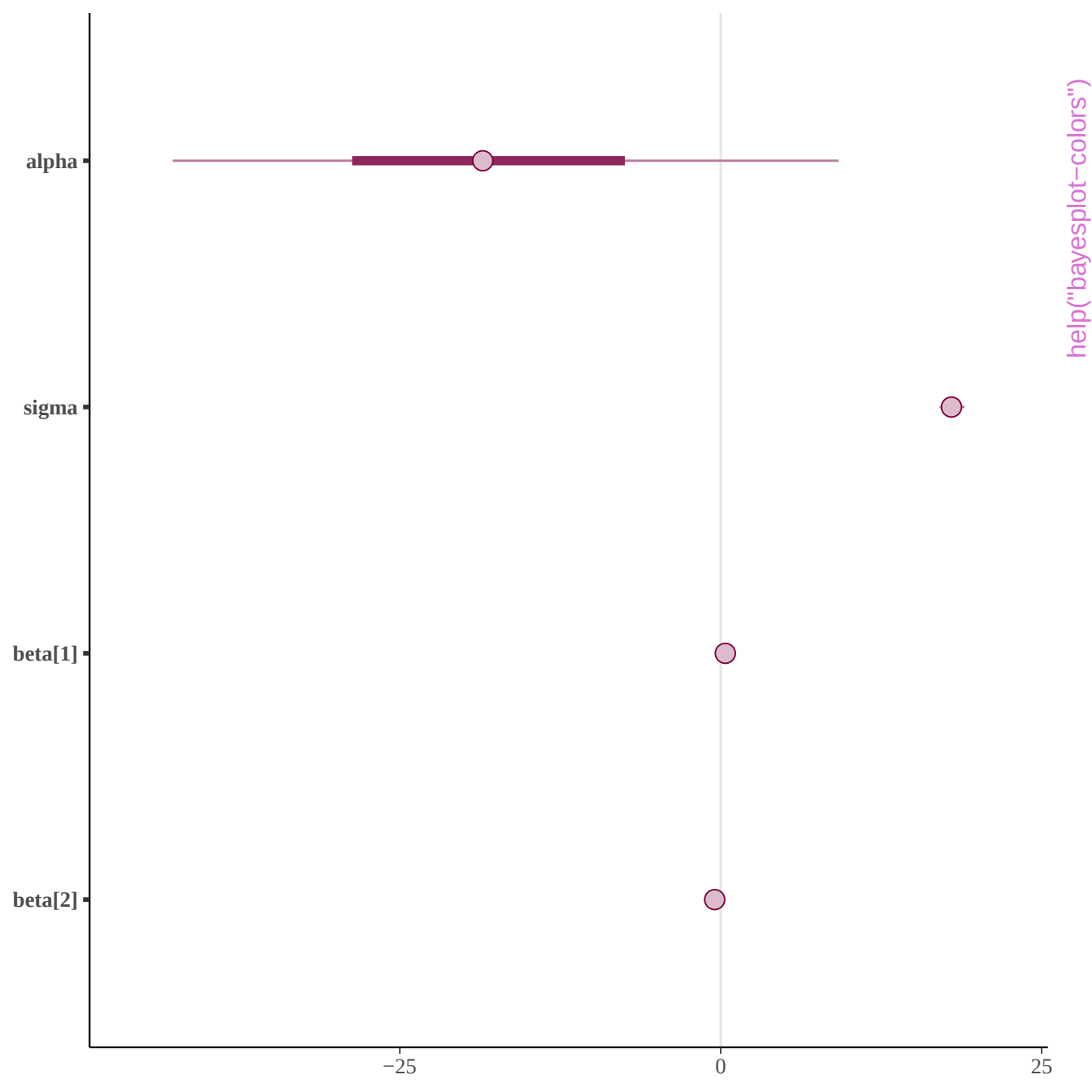
help("bayesplot-colors")



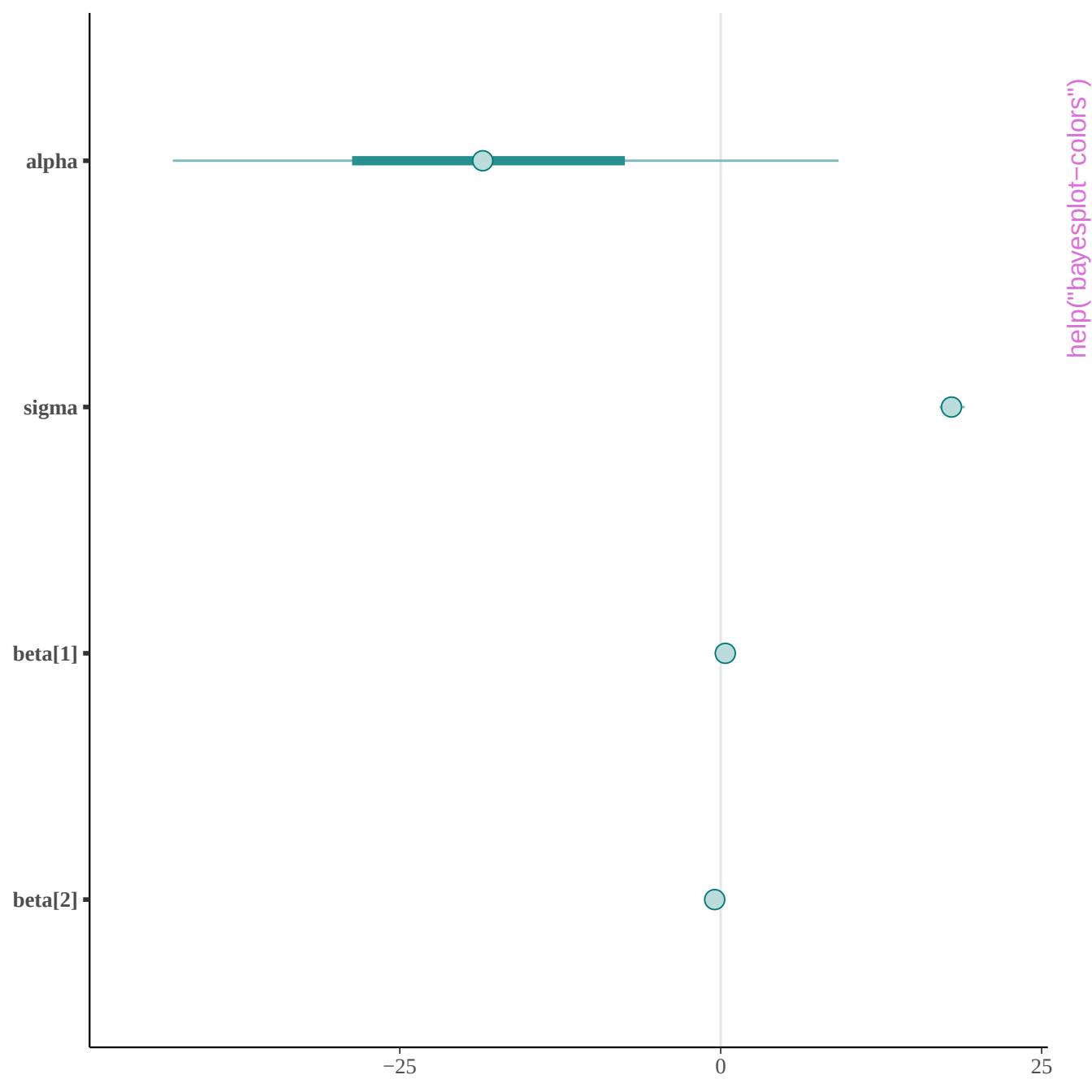
help("bayesplot-colors")

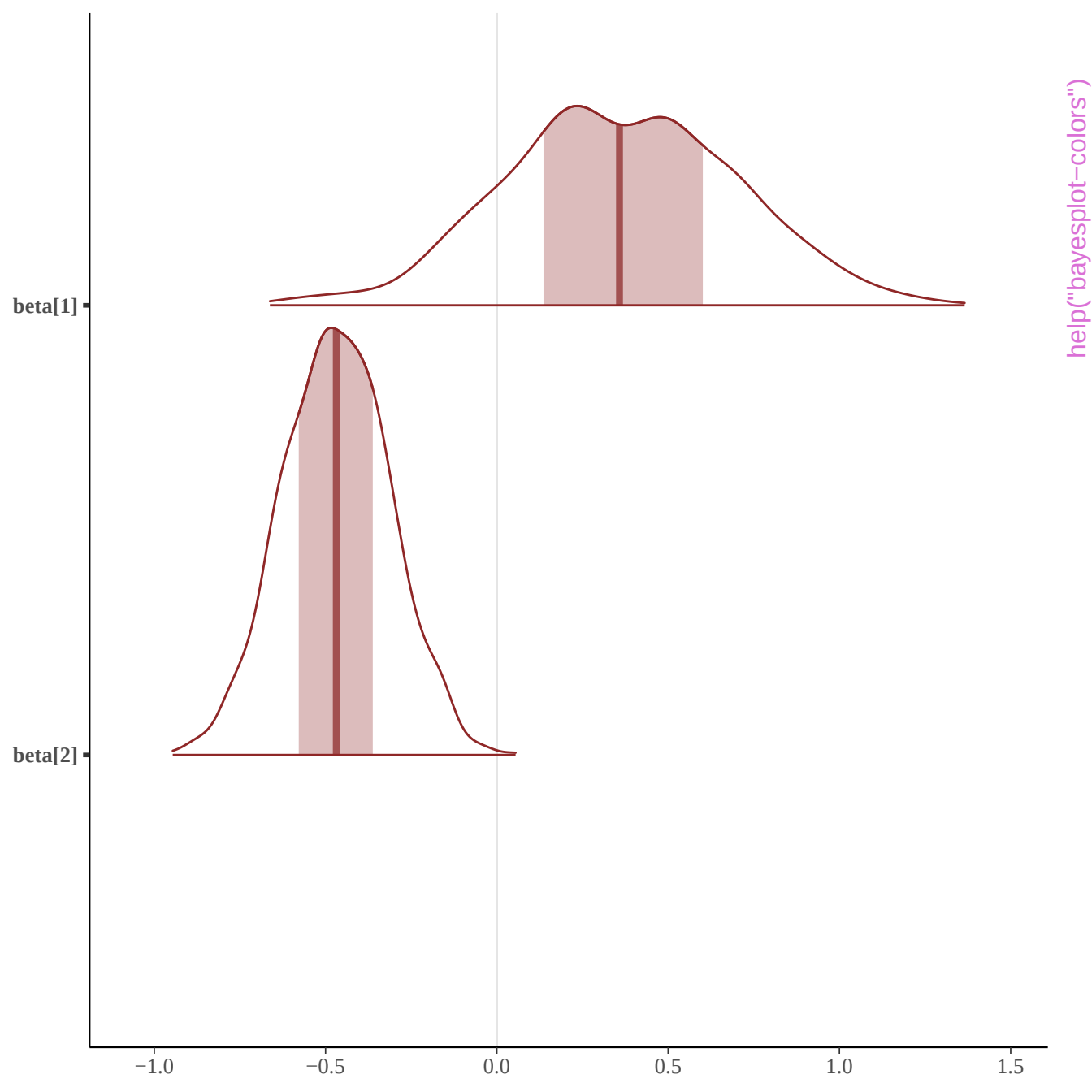


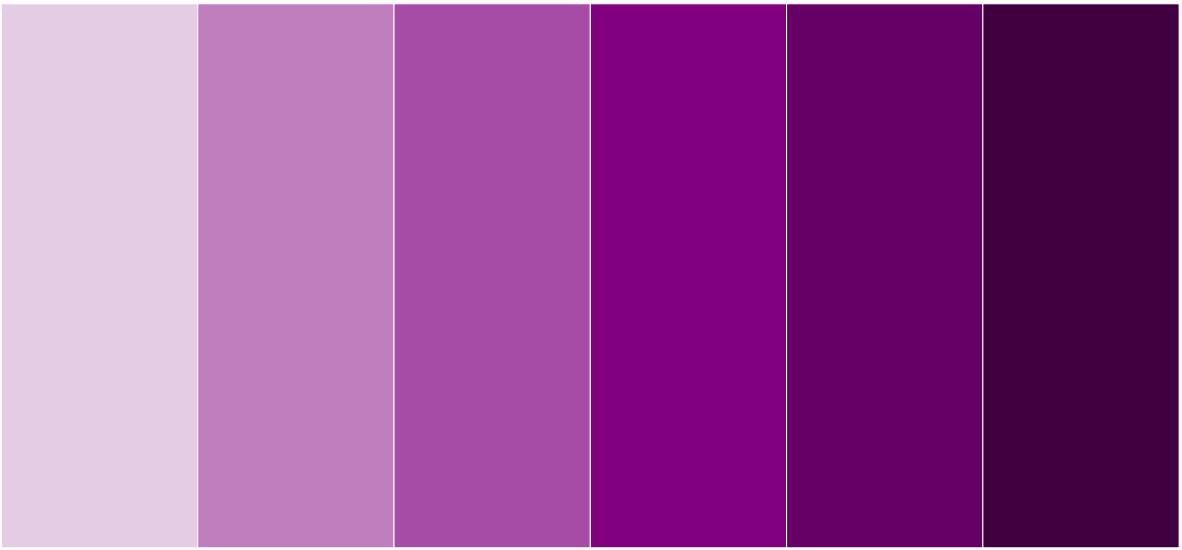
help("bayesplot-colors")


alpha
sigma
beta[1]
beta[2]
−25
0
25
help("bayesplot−colors")

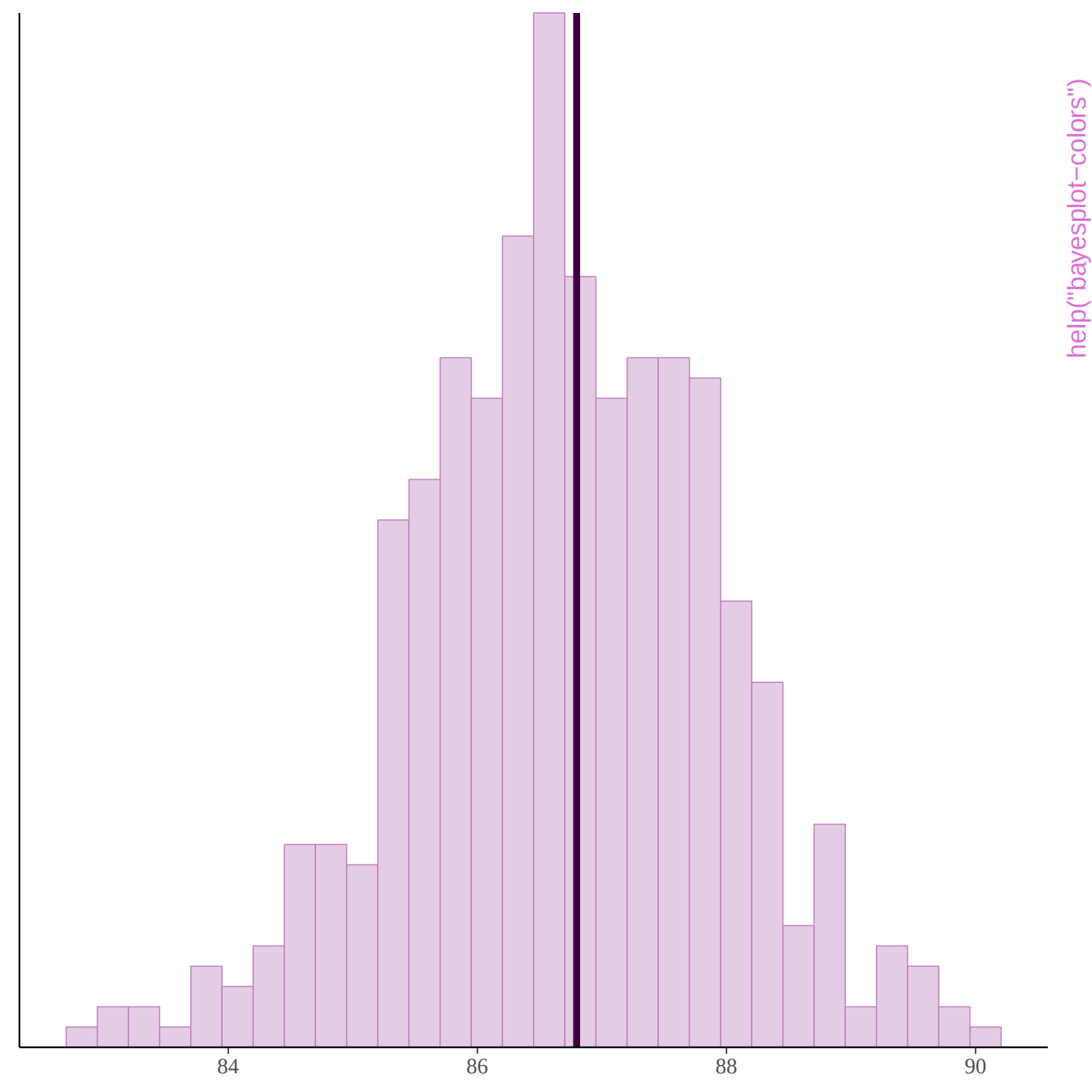
help("bayesplot-colors")

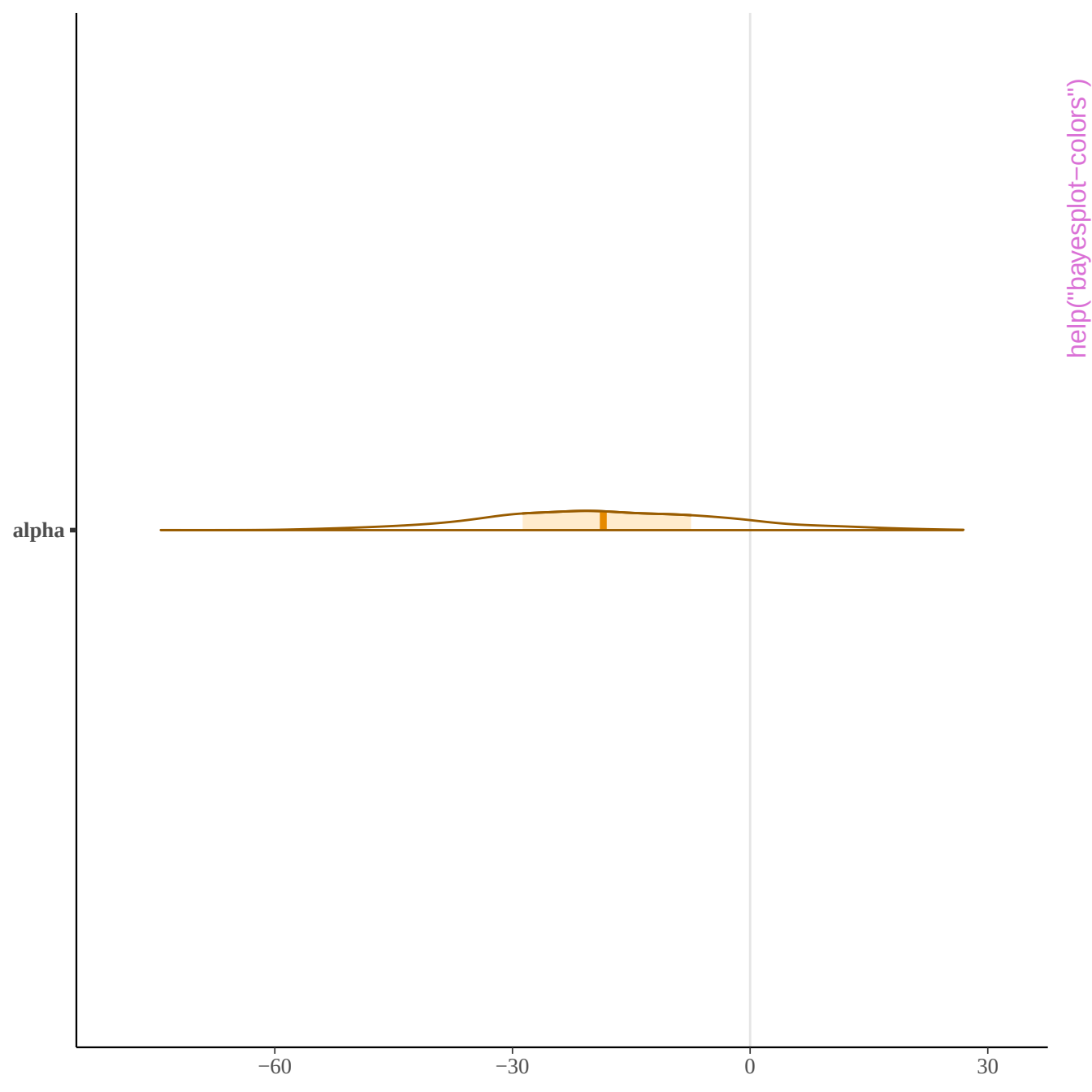

alpha
sigma
beta[1]
beta[2]
−25
0
25
help("bayesplot−colors")

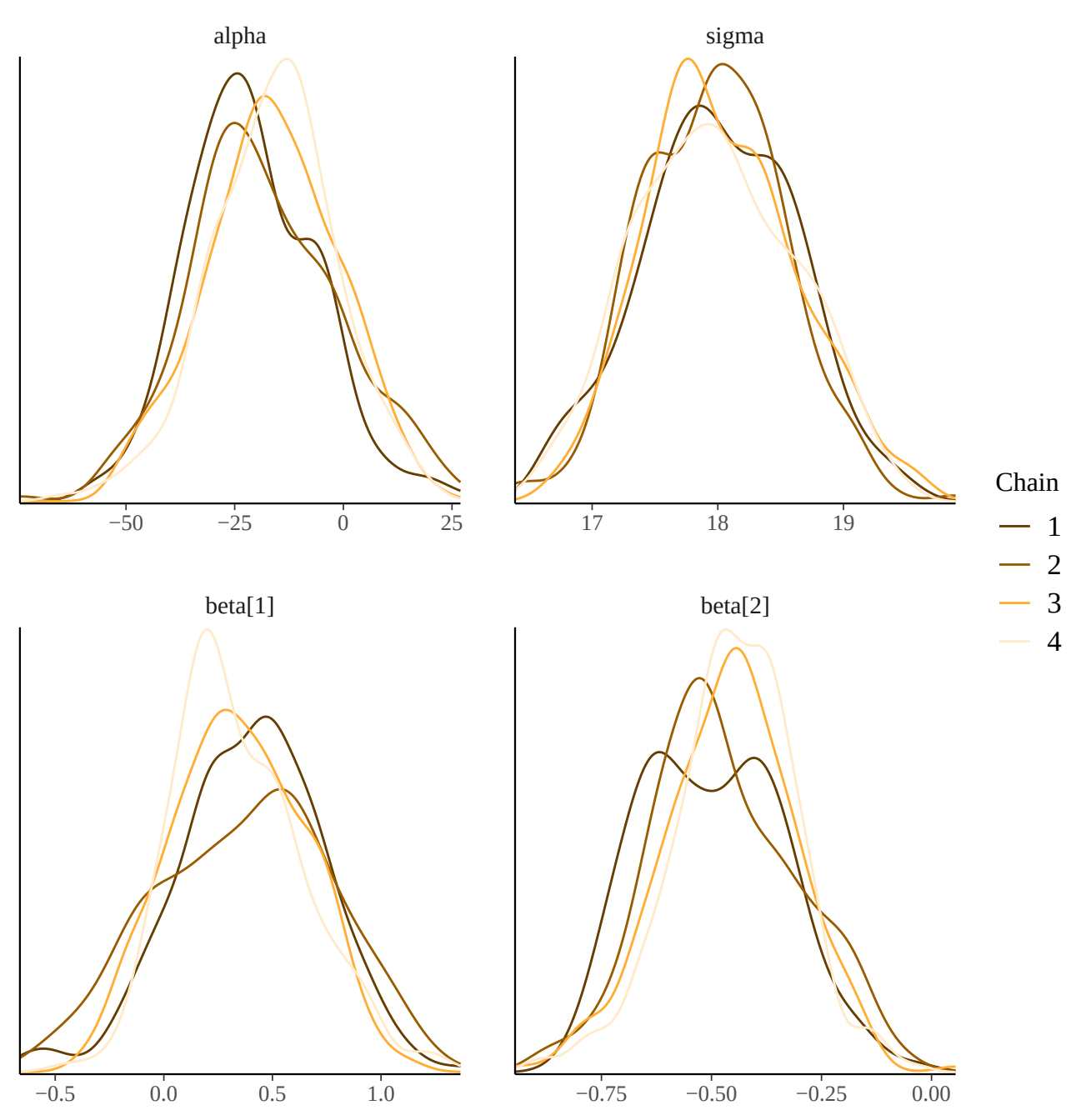

beta[1]
beta[2]
−1.0
−0.5
0.0
0.5
1.0
1.5
help("bayesplot−colors")

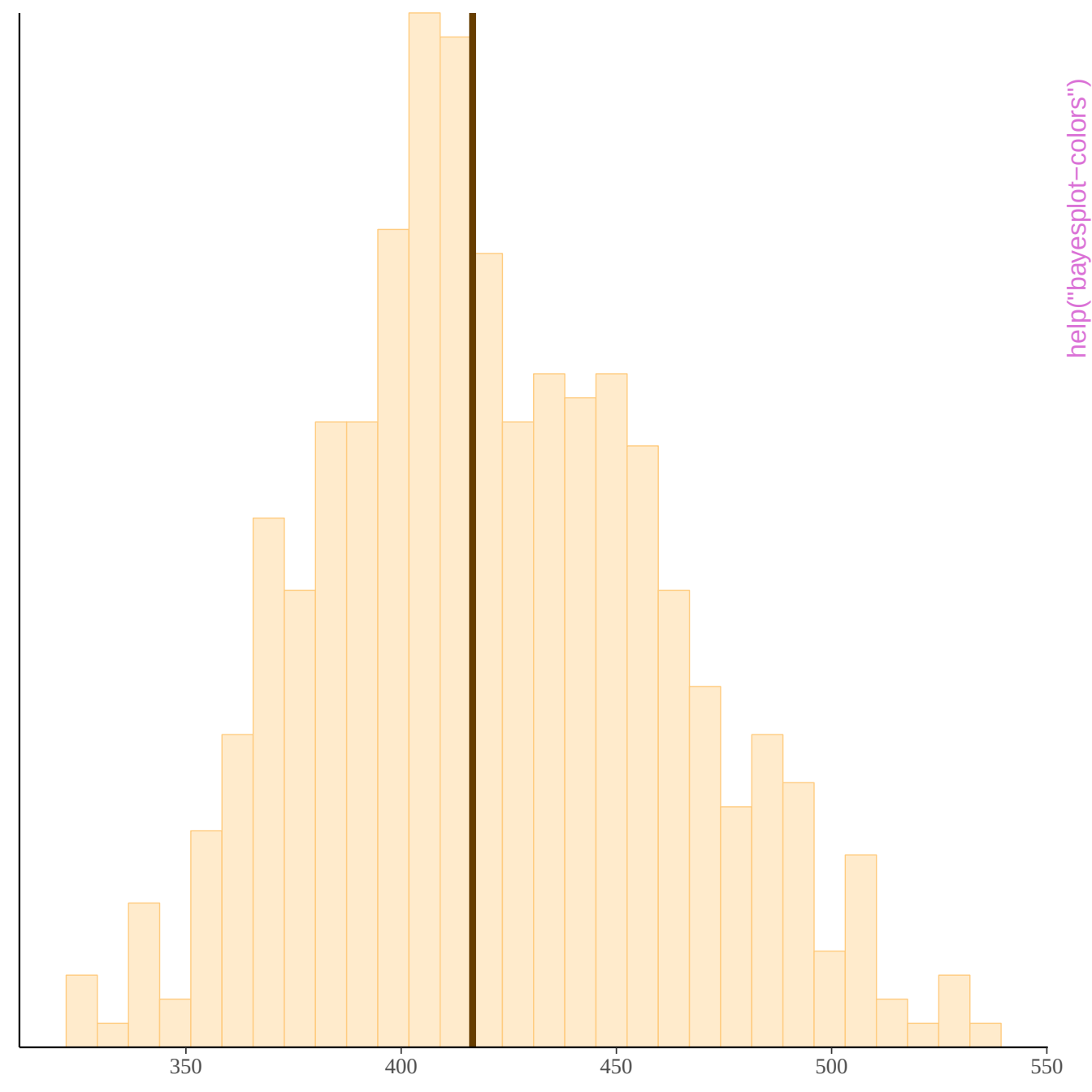


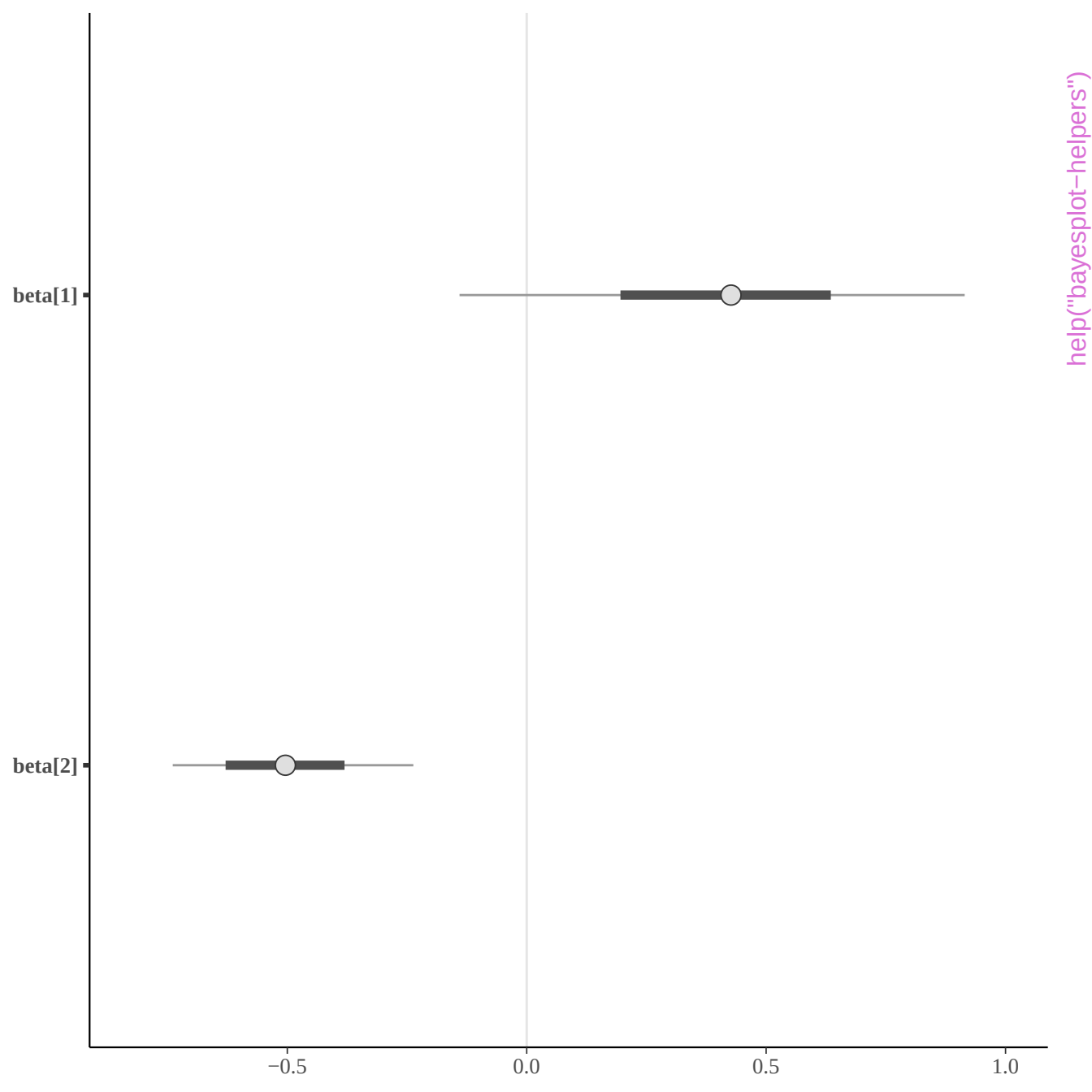
help("bayesplot−colors")

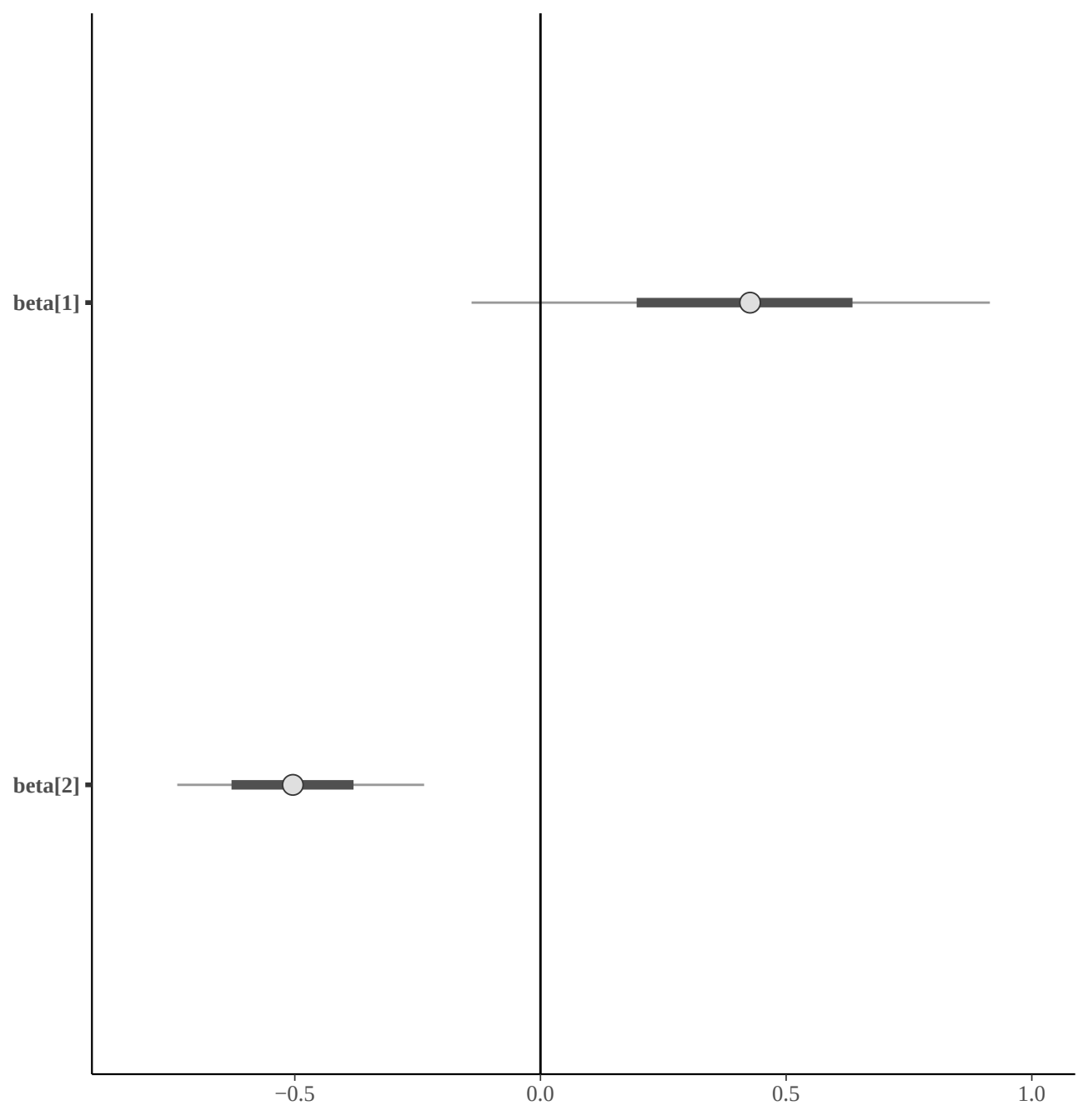

84
86
88
90
help("bayesplot-colors")

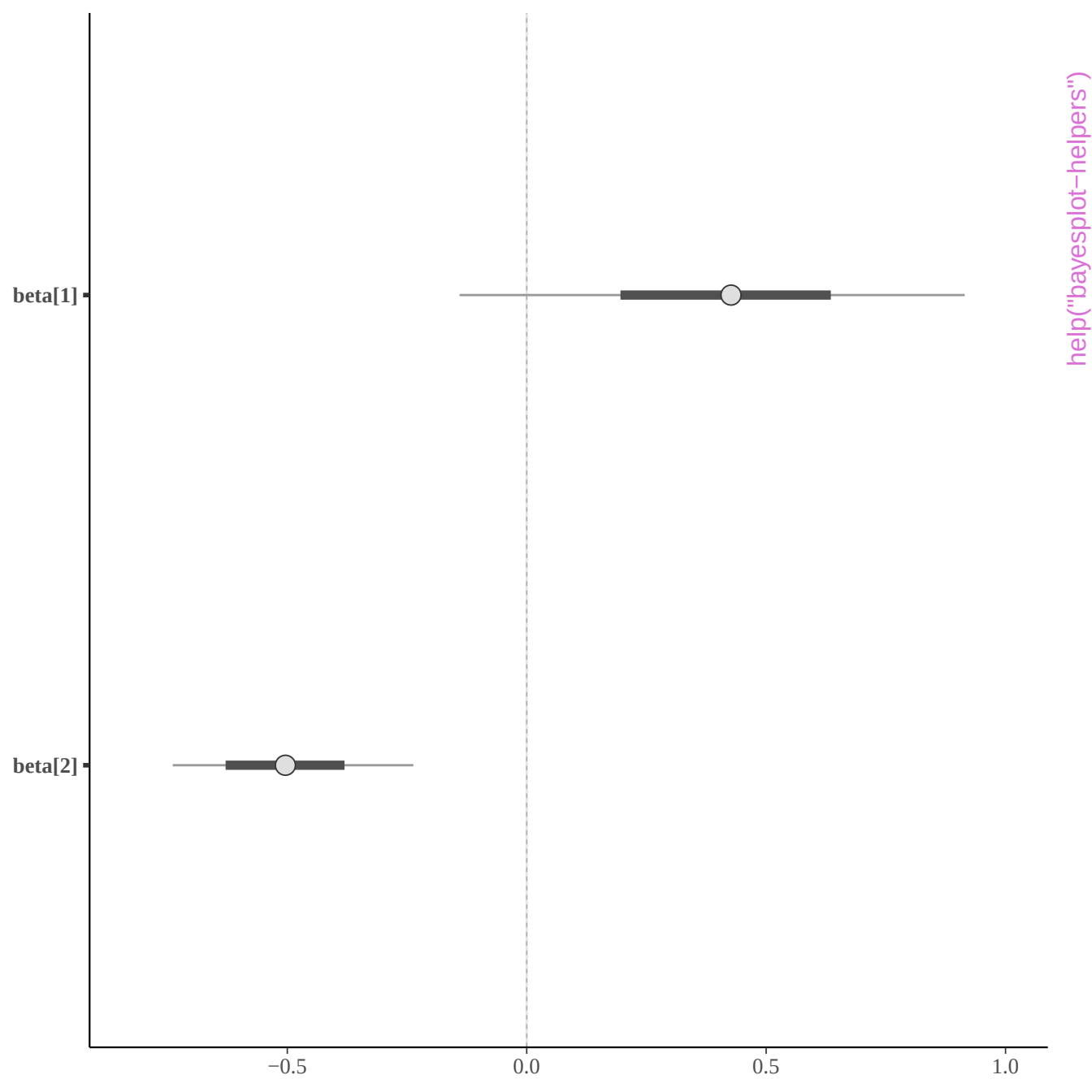

alpha
−60
−30
0
30
help("bayesplot−colors")

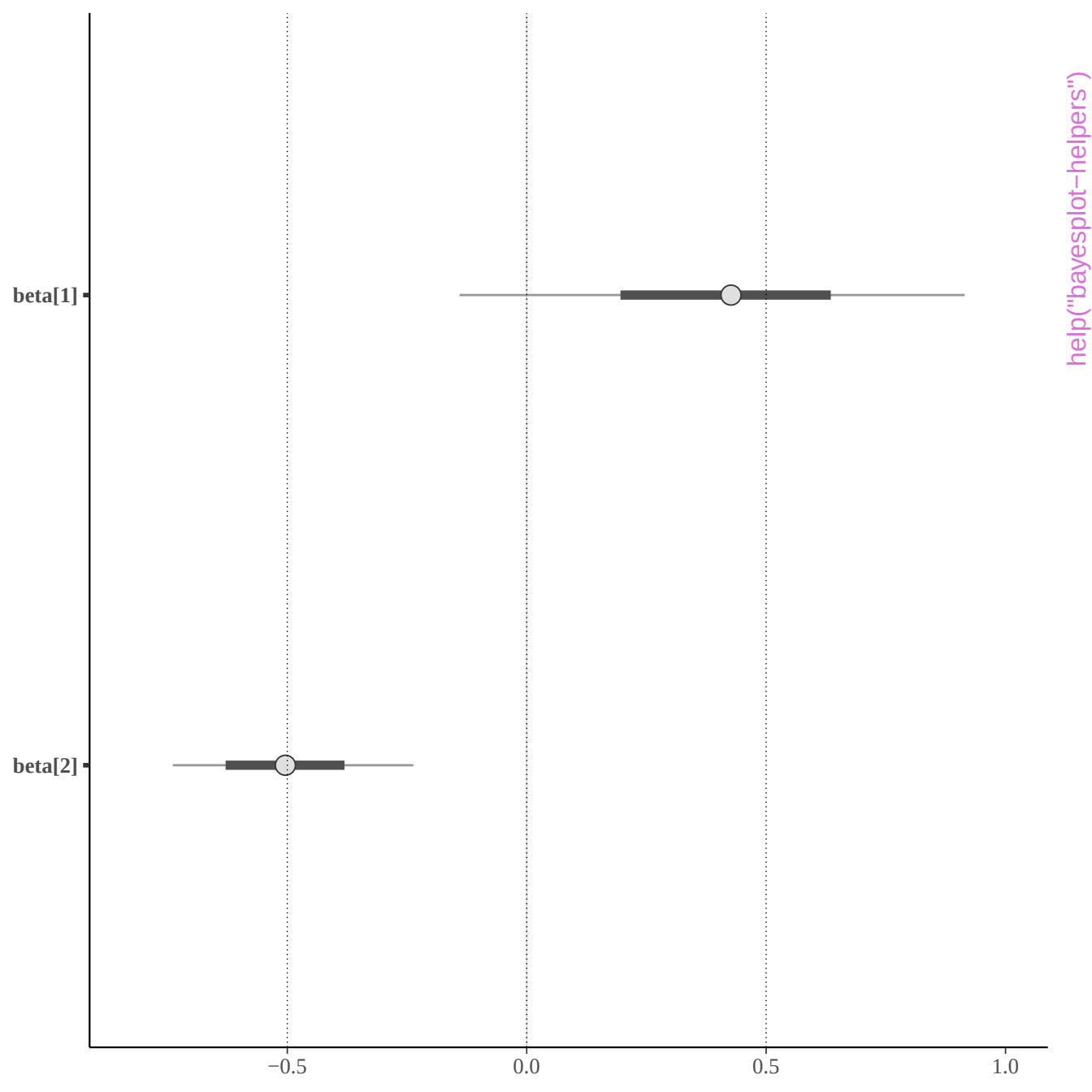

alpha
sigma
beta[1]
beta[2]
−50
−25
0
25
17
18
19
−0.5
0.0
0.5
1.0
−0.75
−0.50
−0.25
0.00
Chain
1
2
3
4
help("bayesplot-colors")

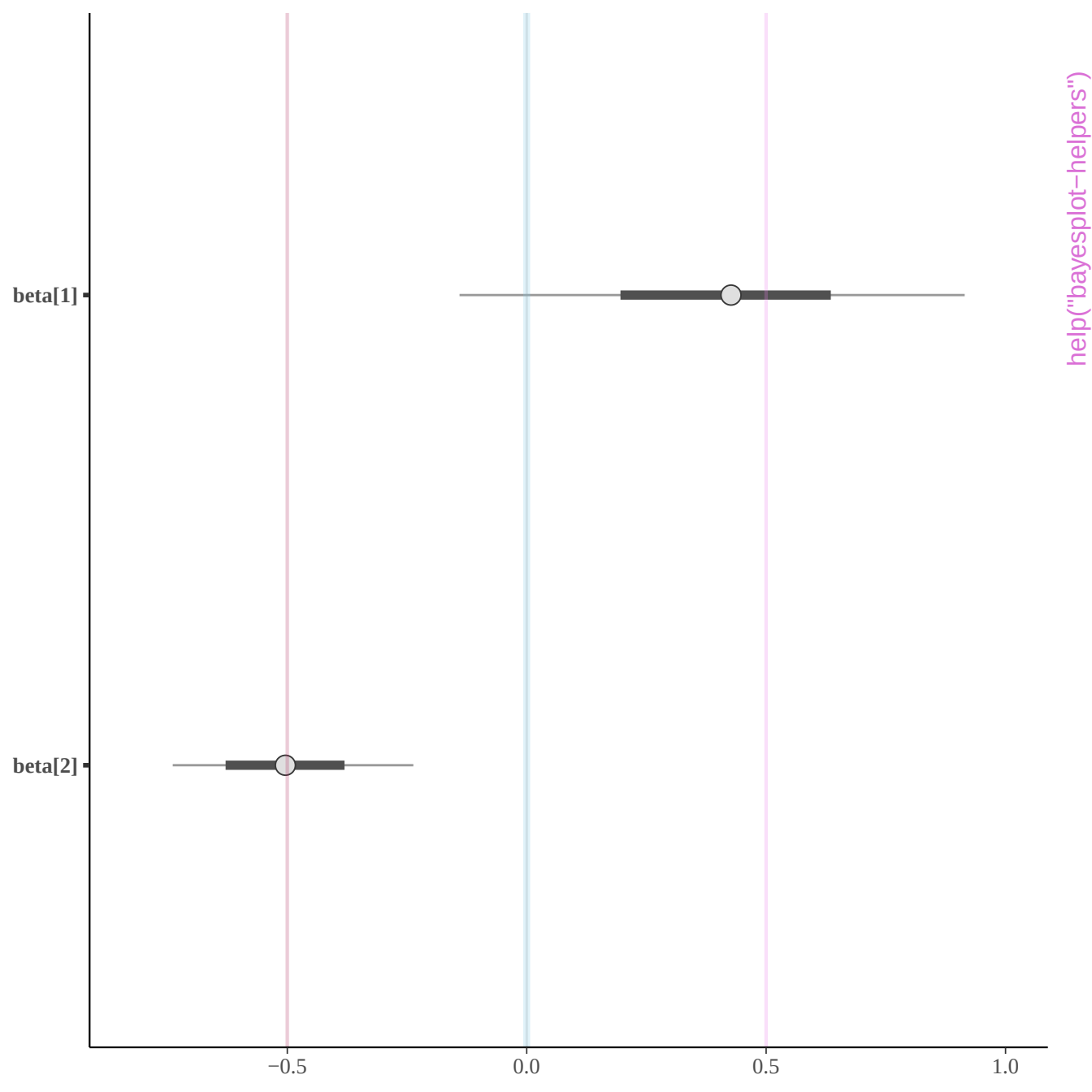

350
400
450
500
550
help("bayesplot-colors")

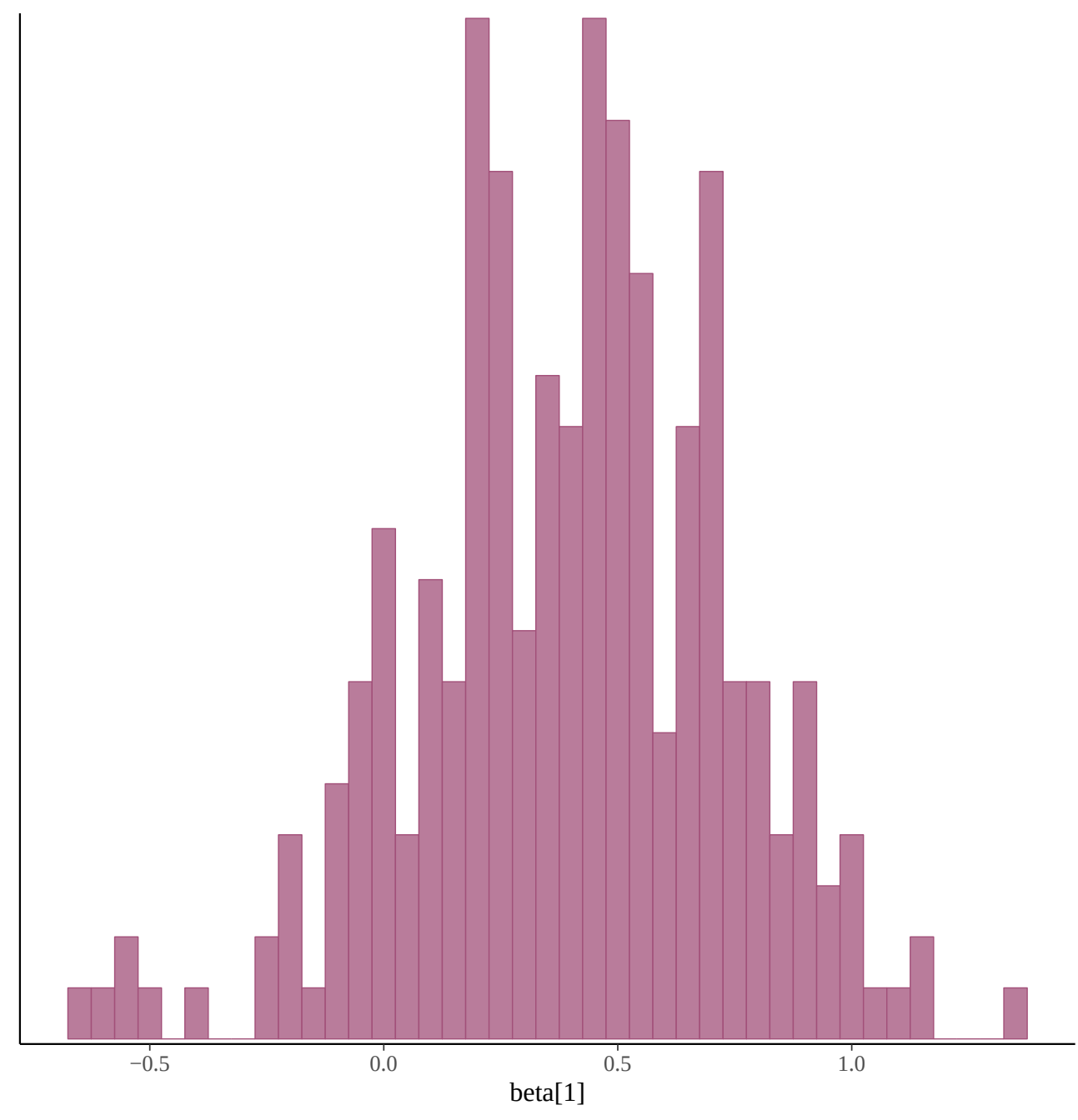

beta[1]
beta[2]
−0.5
0.0
0.5
1.0
help("bayesplot−helpers")

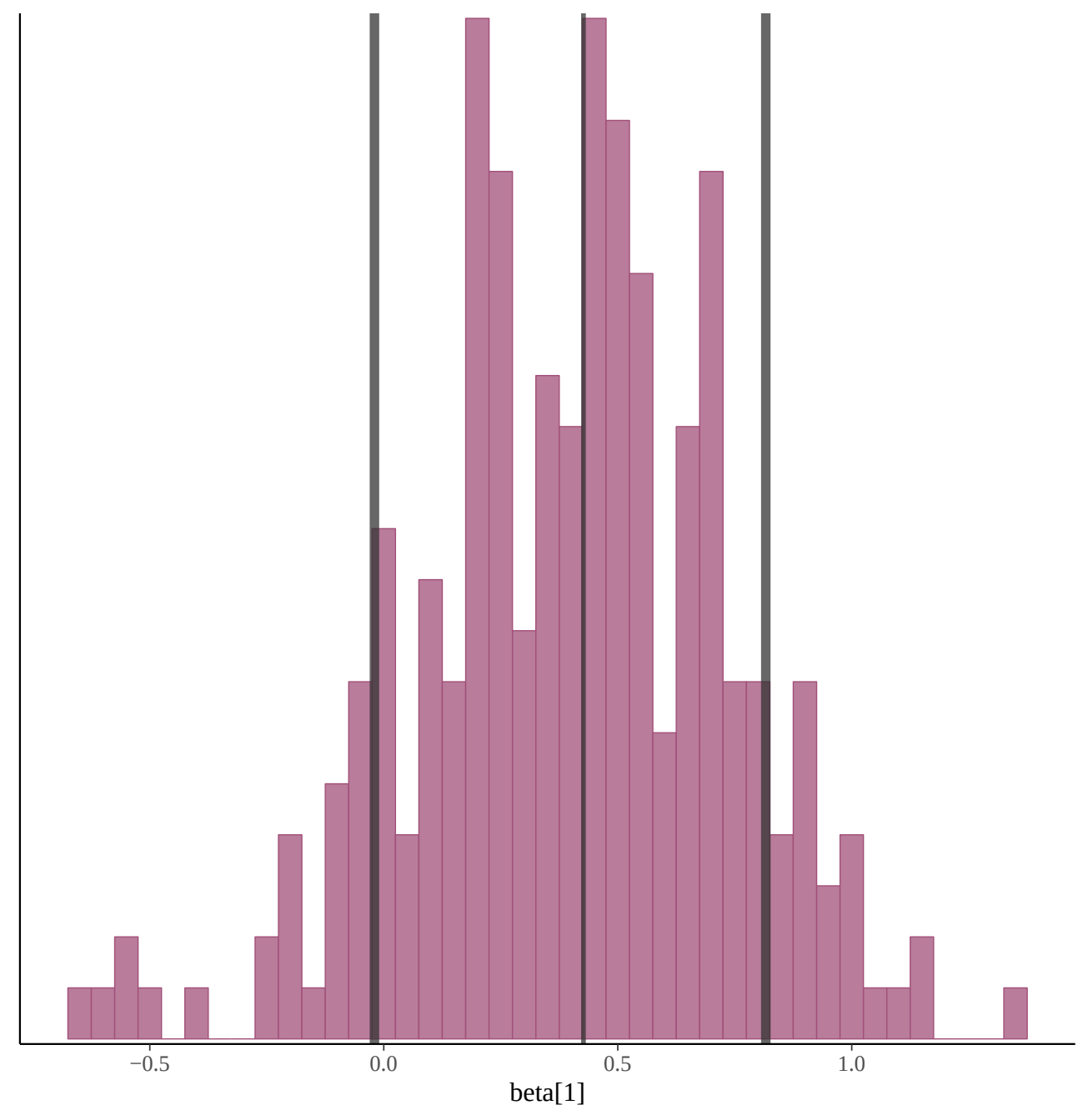

beta[1]
beta[2]
−0.5
0.0
0.5
1.0
help("bayesplot−helpers")

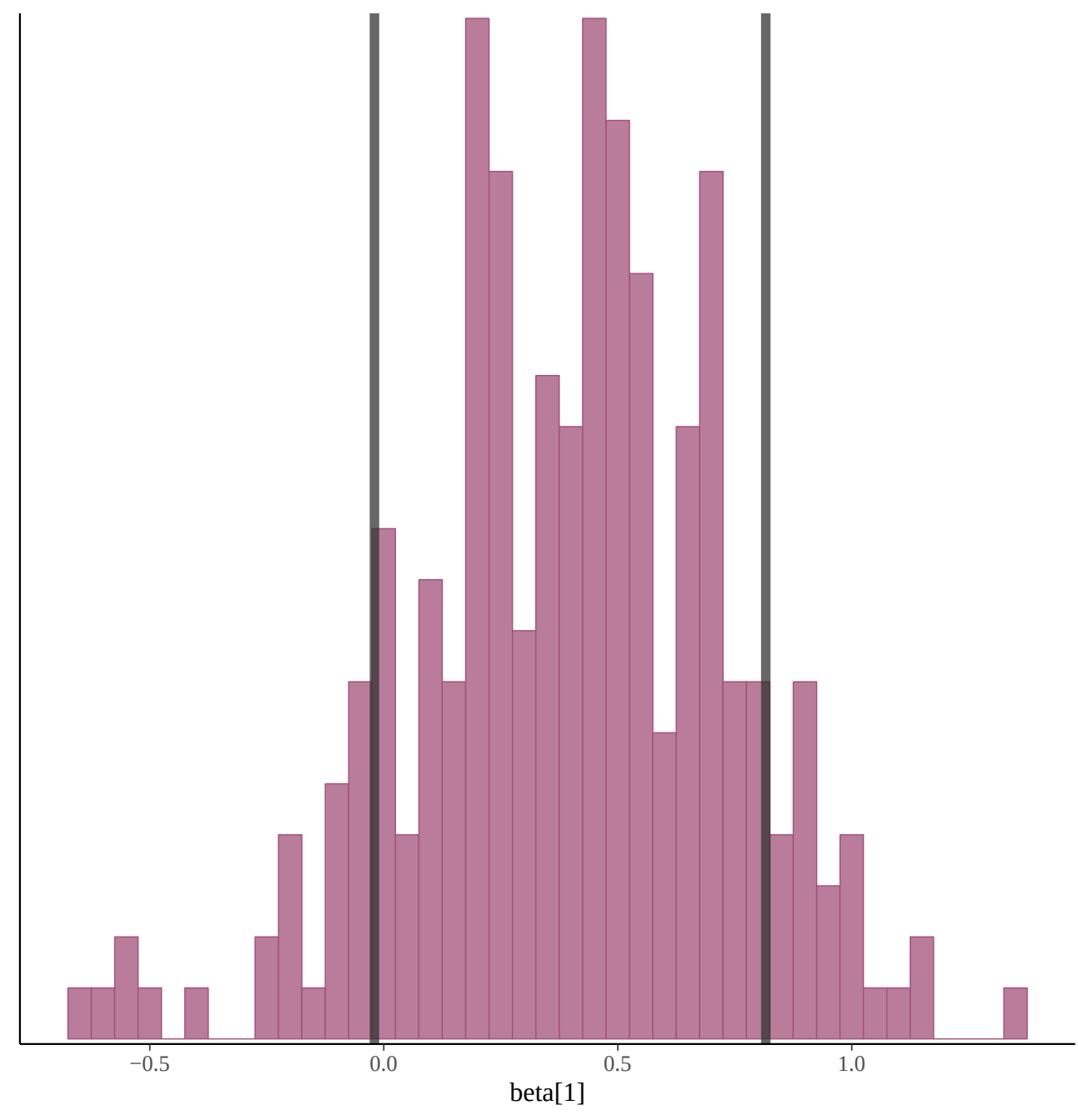

beta[1]
beta[2]
−0.5
0.0
0.5
1.0
help("bayesplot−helpers")

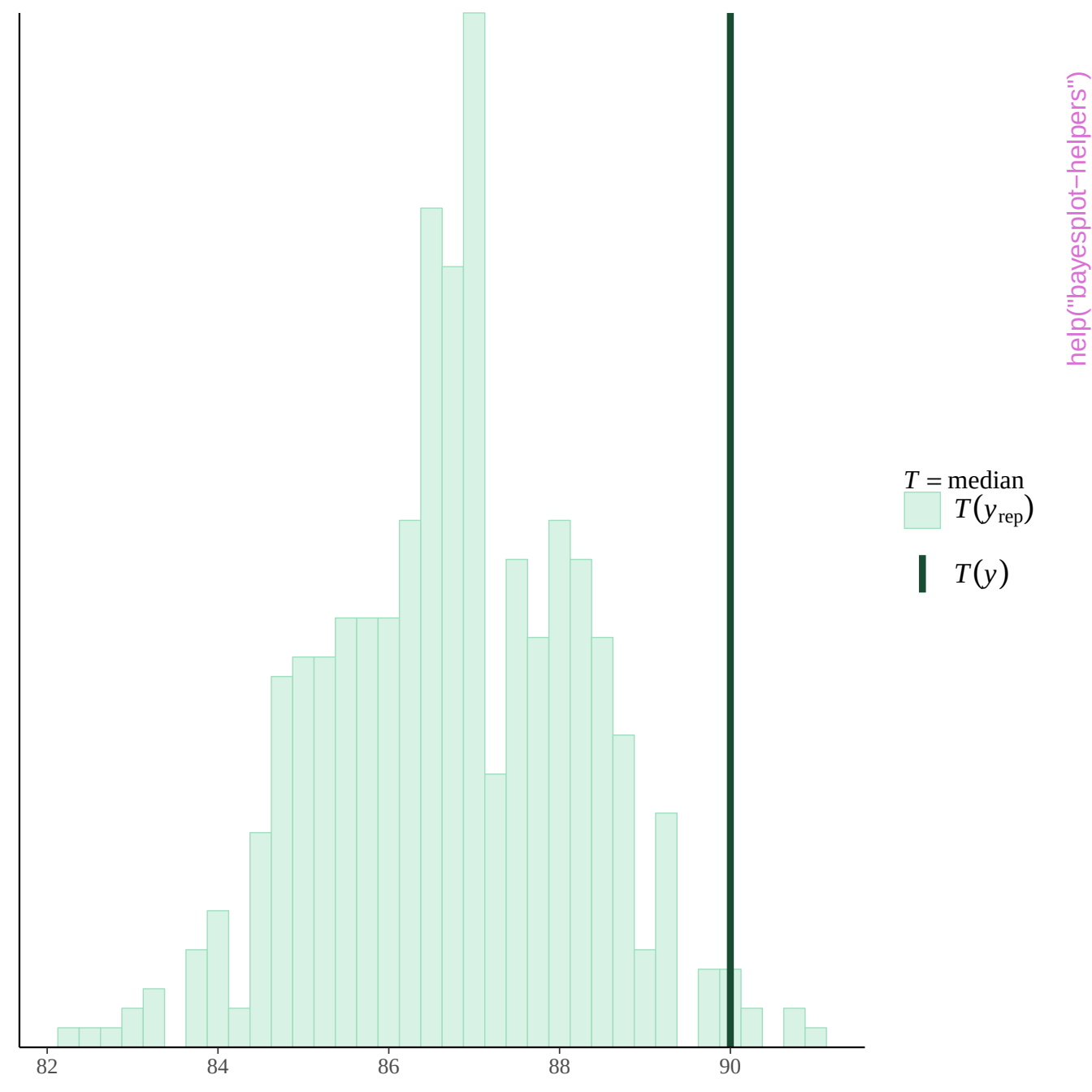

beta[1]
beta[2]
−0.5
0.0
0.5
1.0
help("bayesplot−helpers")

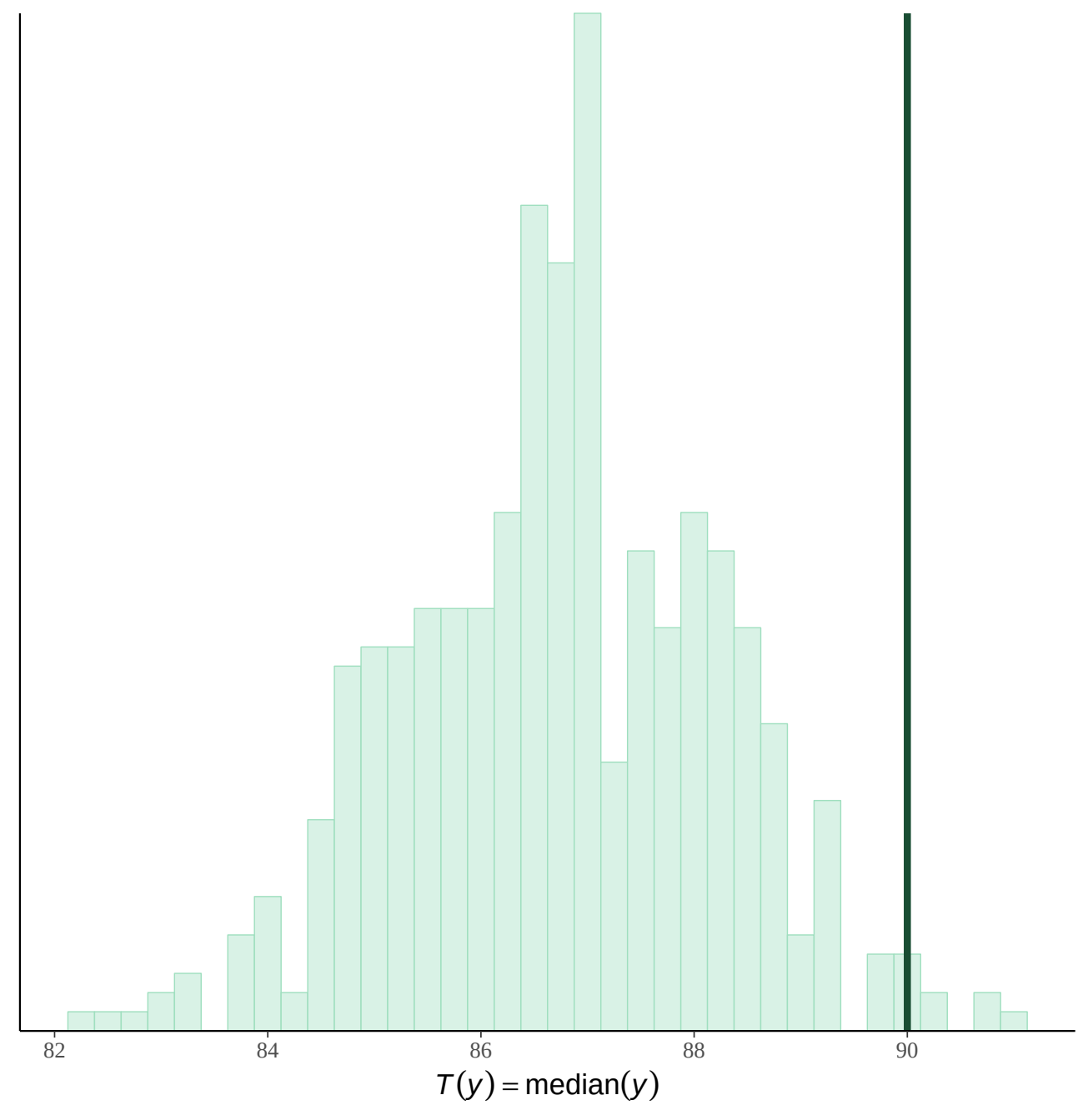

beta[1]
beta[2]
−0.5
0.0
0.5
1.0
help("bayesplot−helpers")

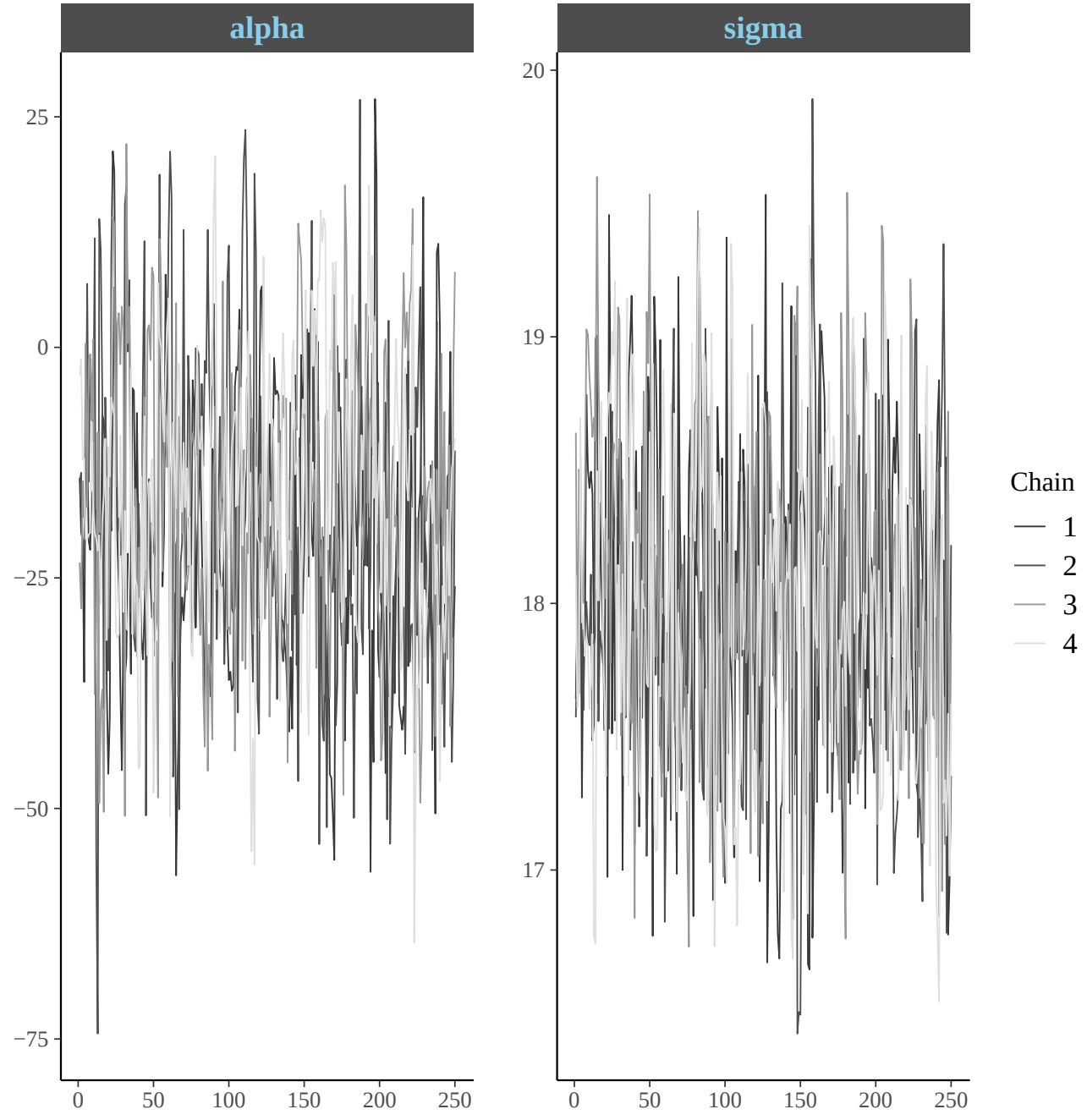

−0.5
0.0
0.5
1.0
beta[1]
help("bayesplot−helpers")

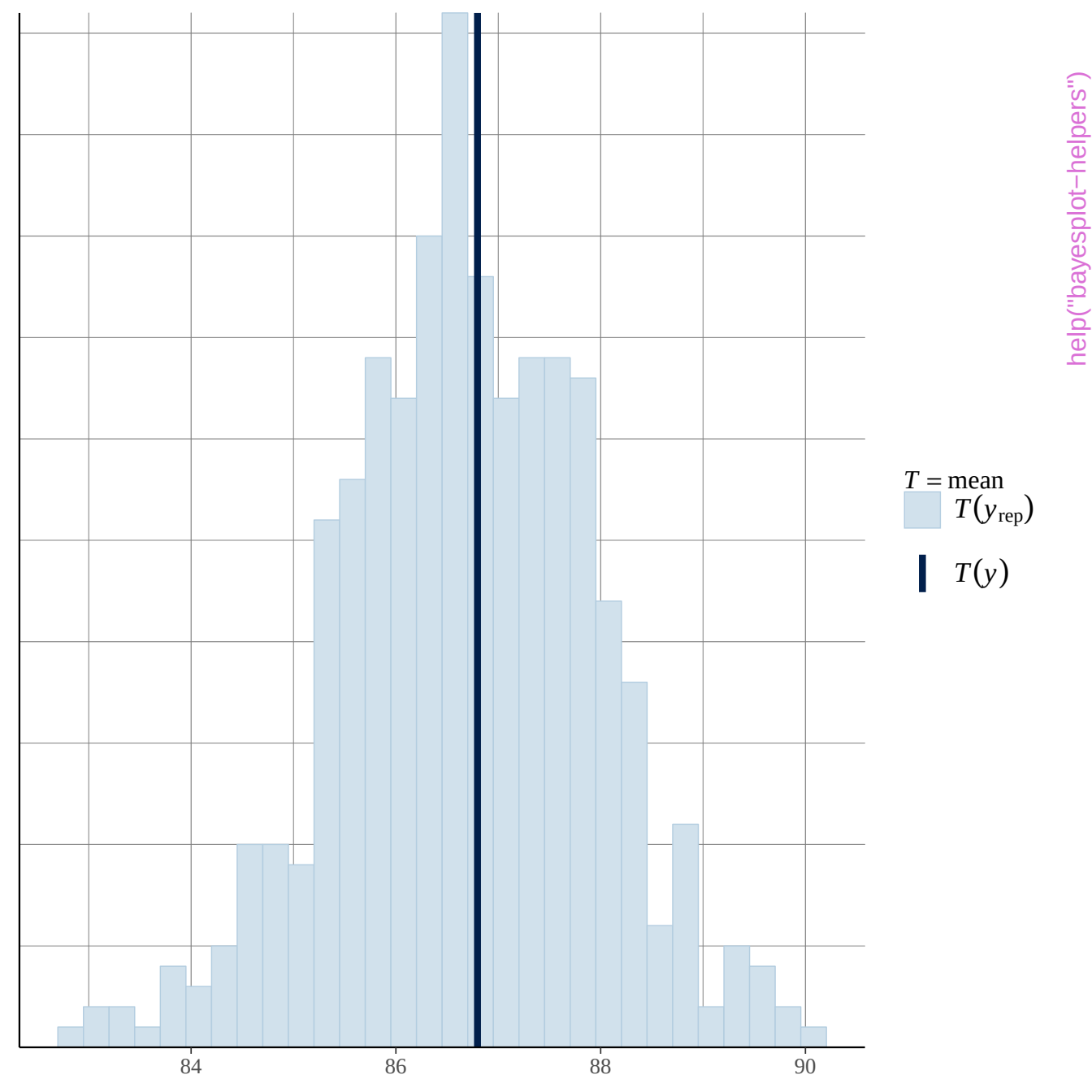

help("bayesplot-helpers")
−0.5
0.0
0.5
1.0
beta[1]

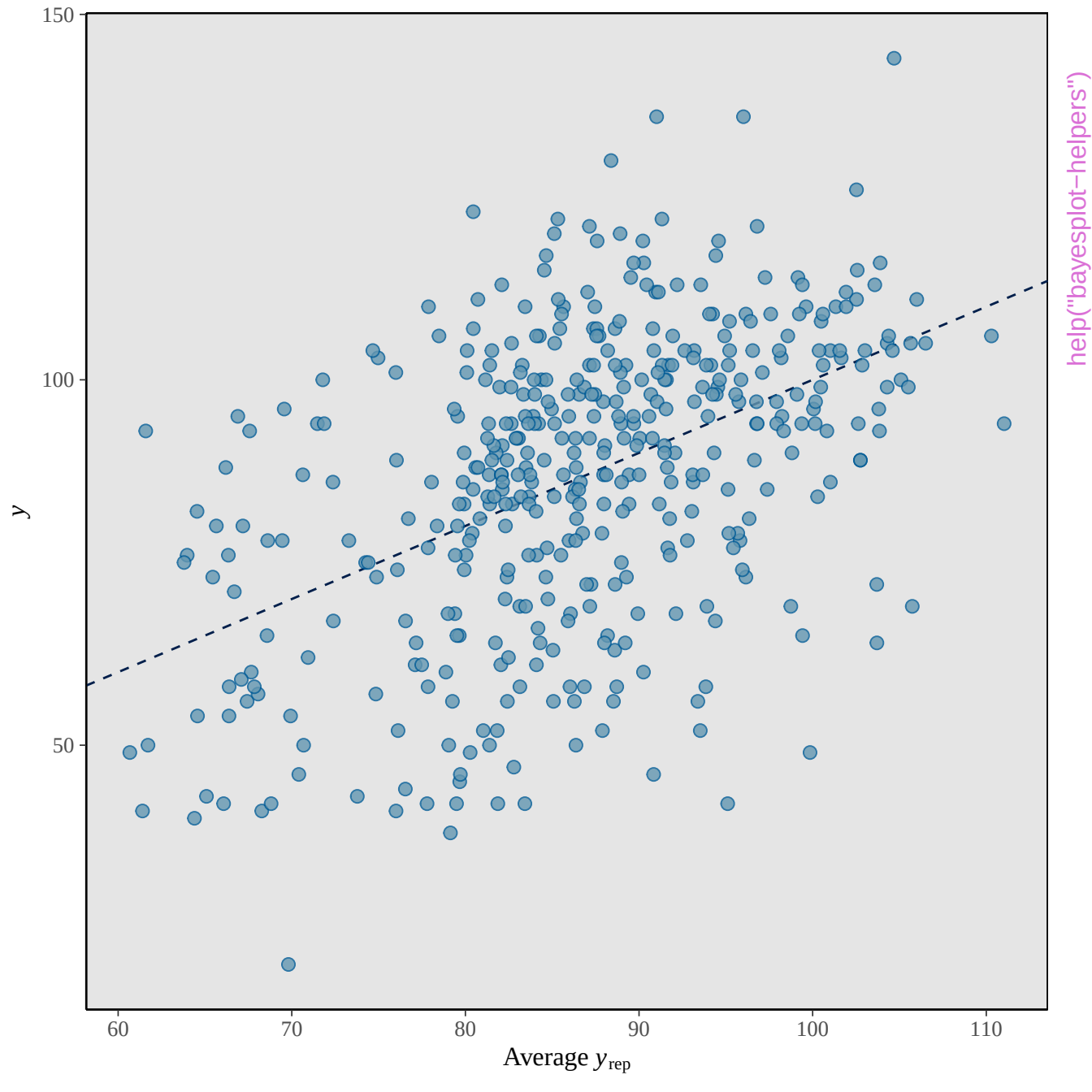

help("bayesplot-helpers")
−0.5
0.0
0.5
1.0
beta[1]

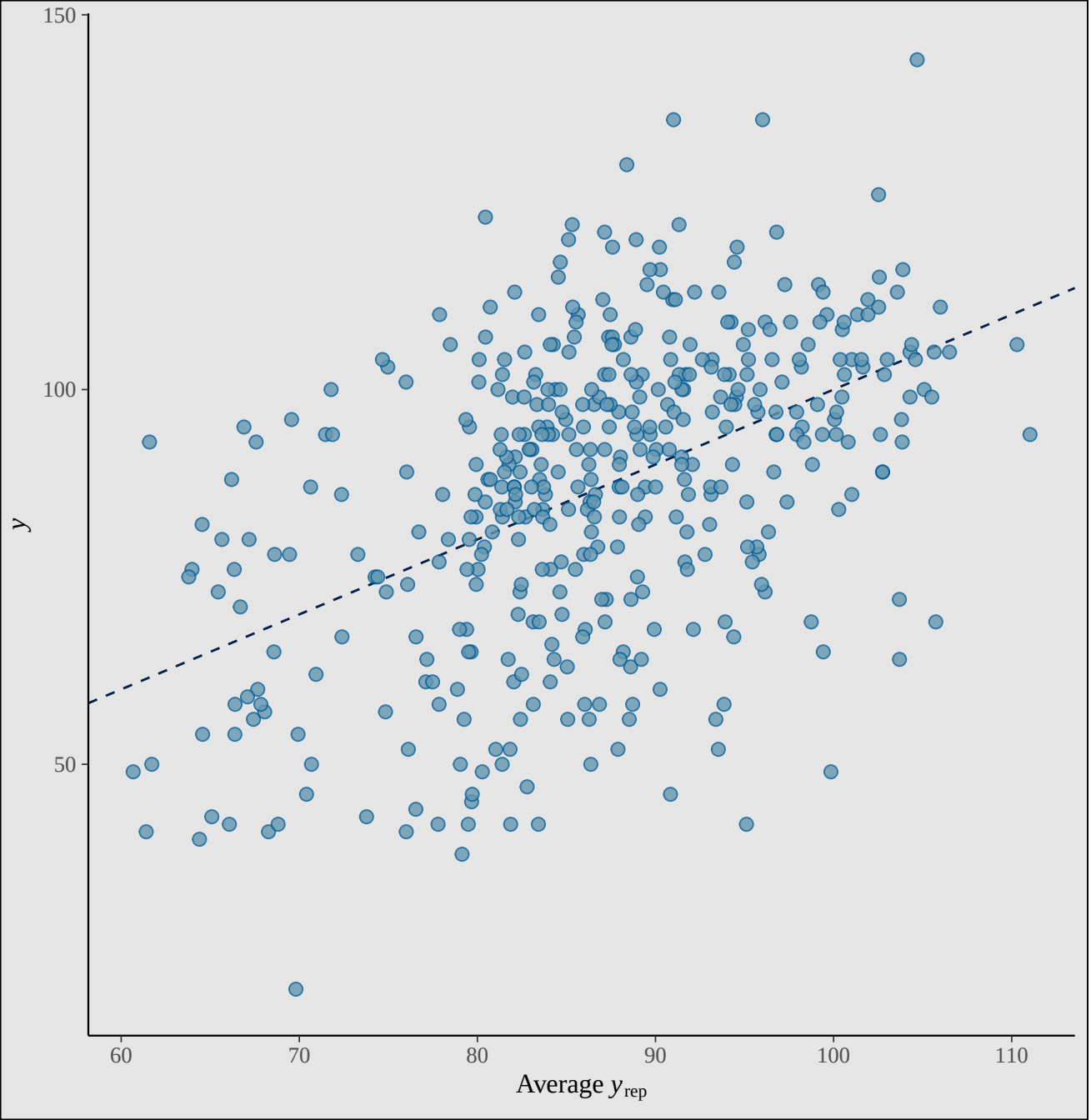

help("bayesplot-helpers")
T = median
T(y_rep)
T(y)
82
84
86
88
90

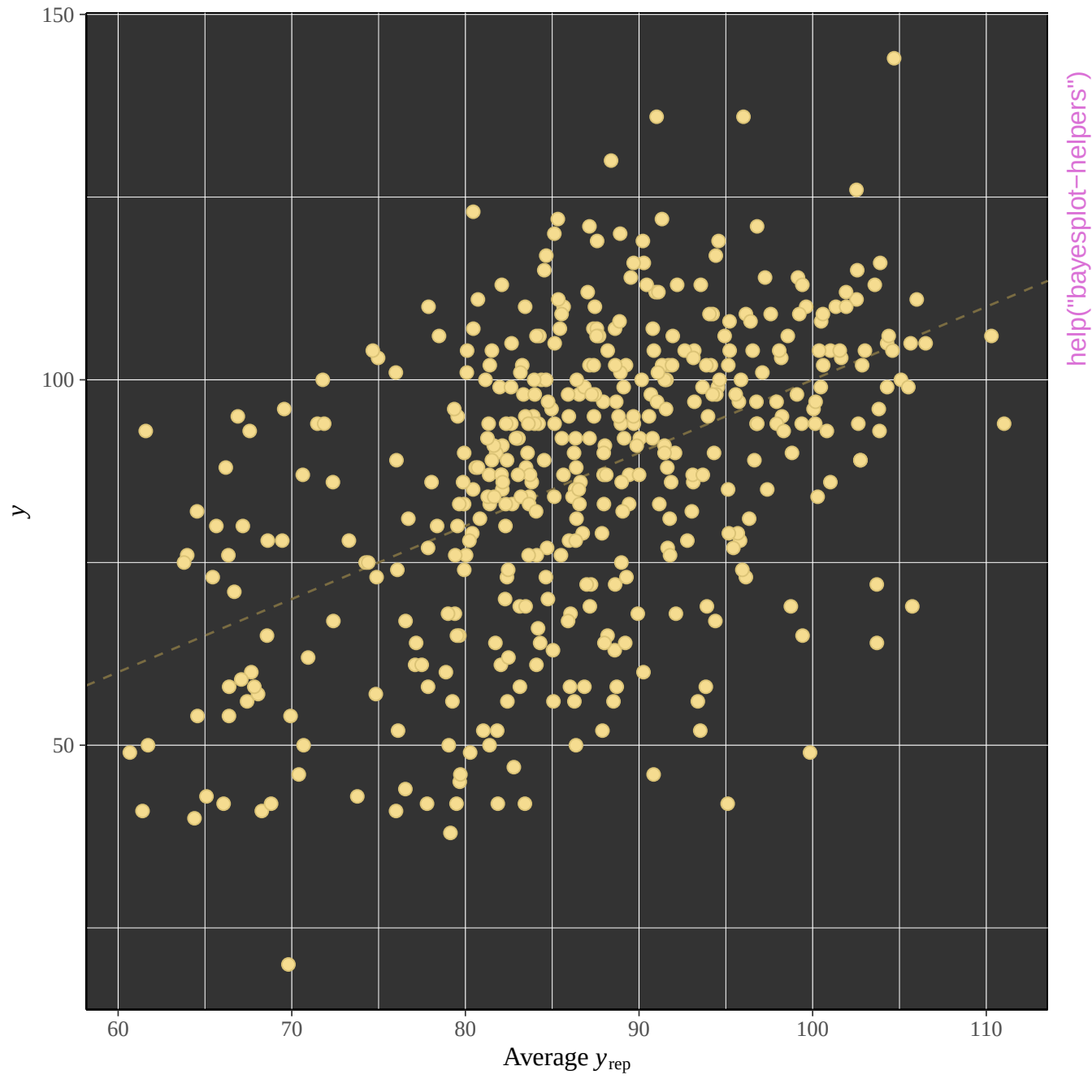

help("bayesplot−helpers")
82
84
86
88
90
$T(y) = \text{median}(y)$

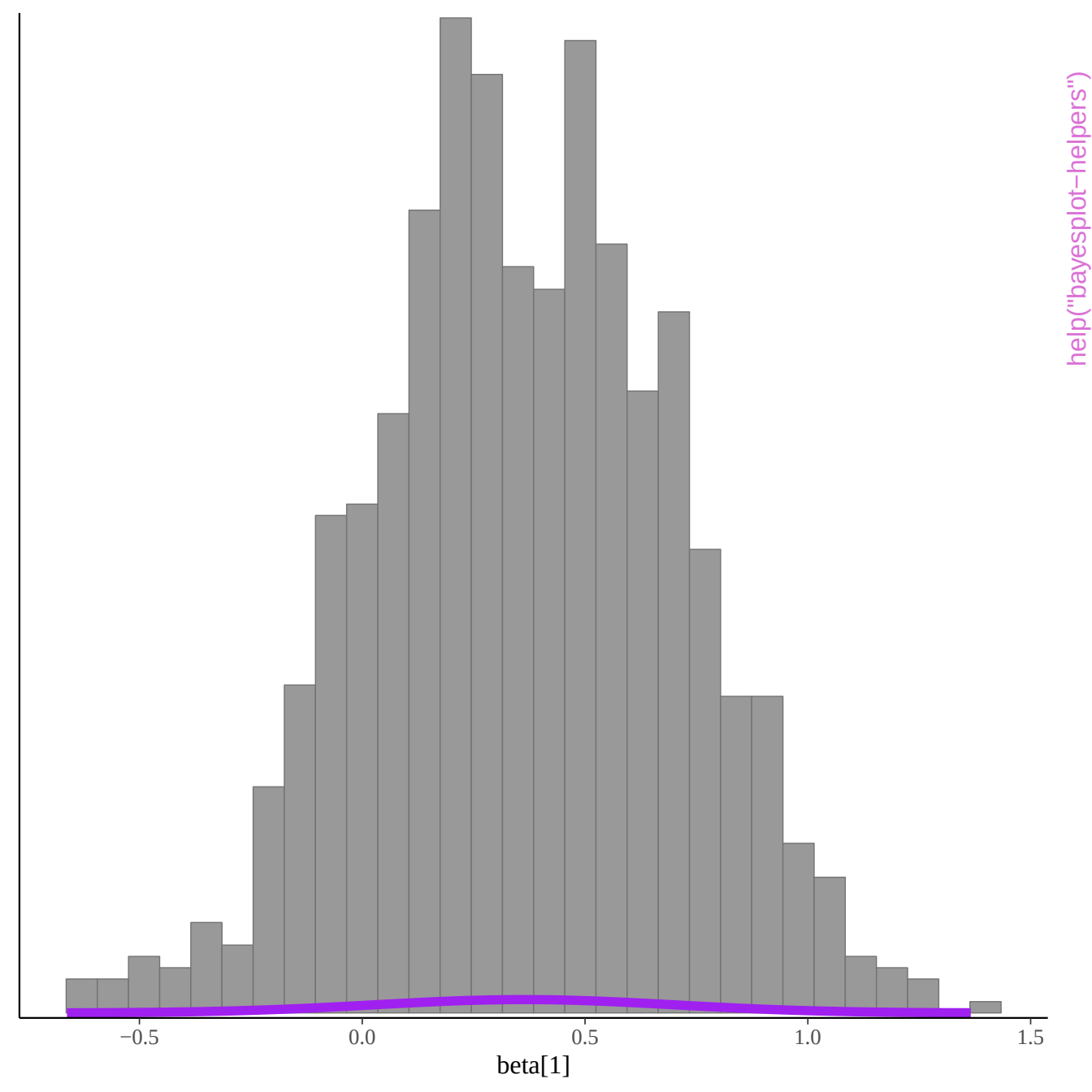

alpha
sigma
25
0
−25
−50
−75
20
19
18
17
0
50
100
150
200
250
Chain
1
2
3
4
help("bayesplot−helpers")

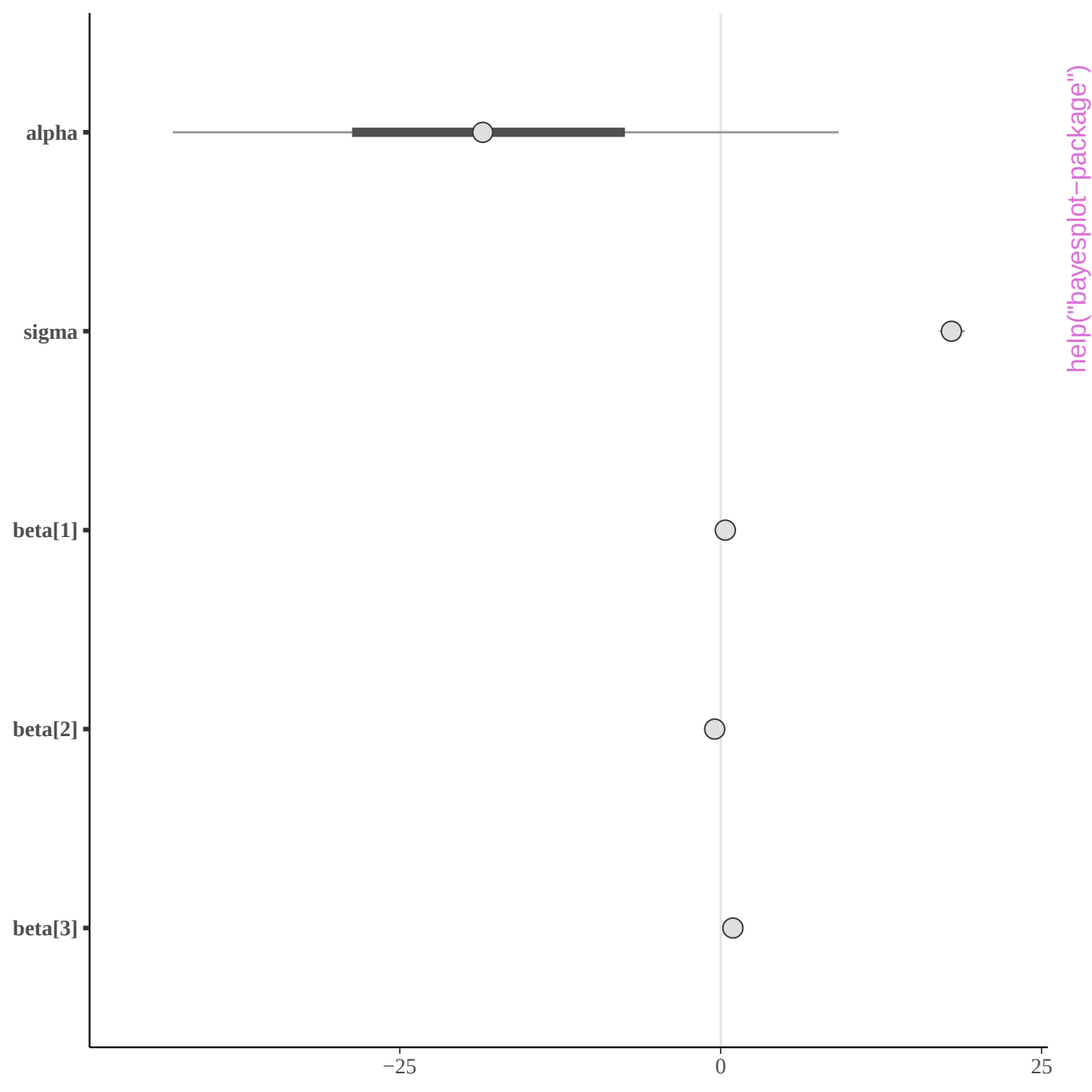

84
86
88
90
T = mean
$T(y_{rep})$
$T(y)$
help("bayesplot-helpers")

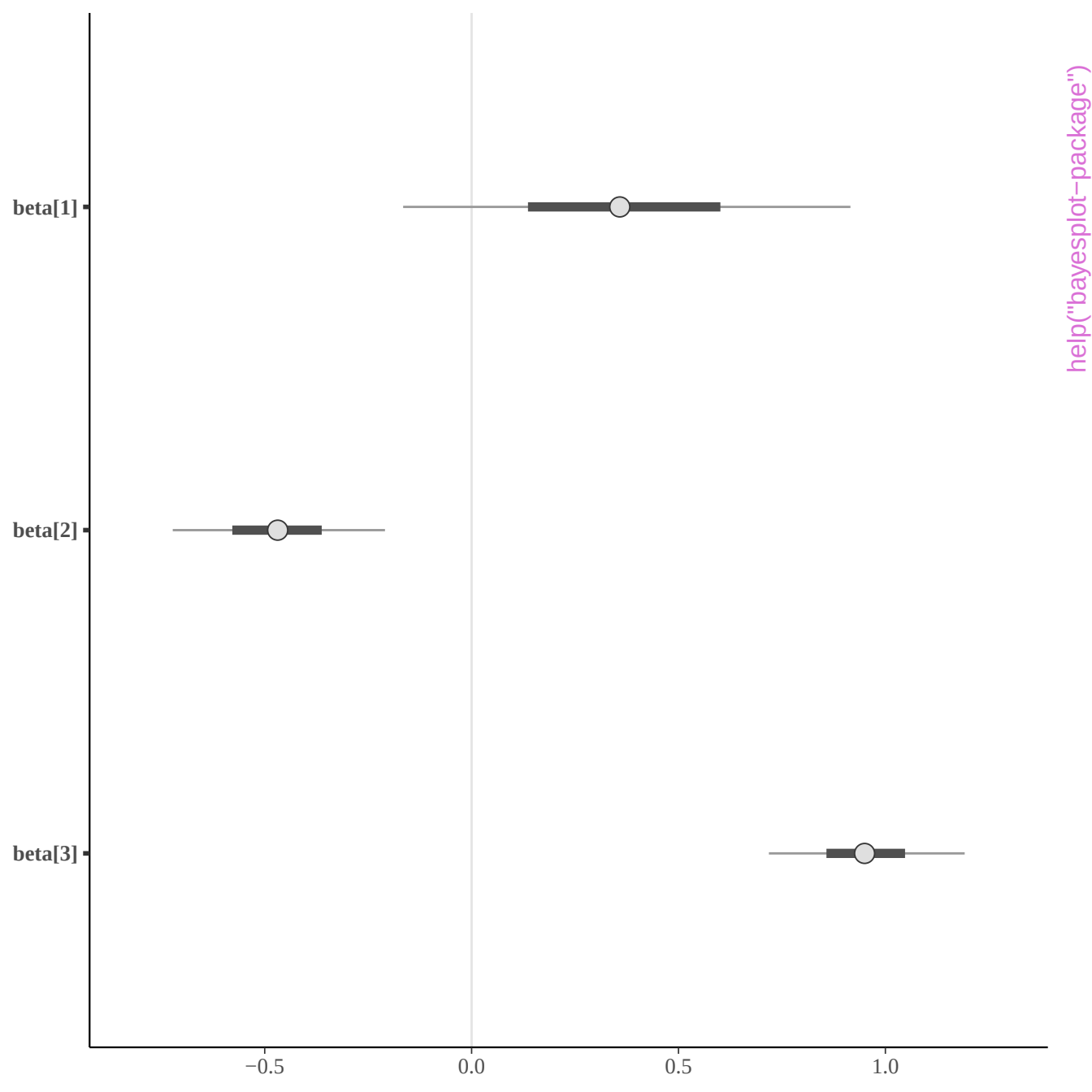

150
100
50
y
60
70
80
90
100
110
Average y_{rep}
help("bayesplot−helpers")

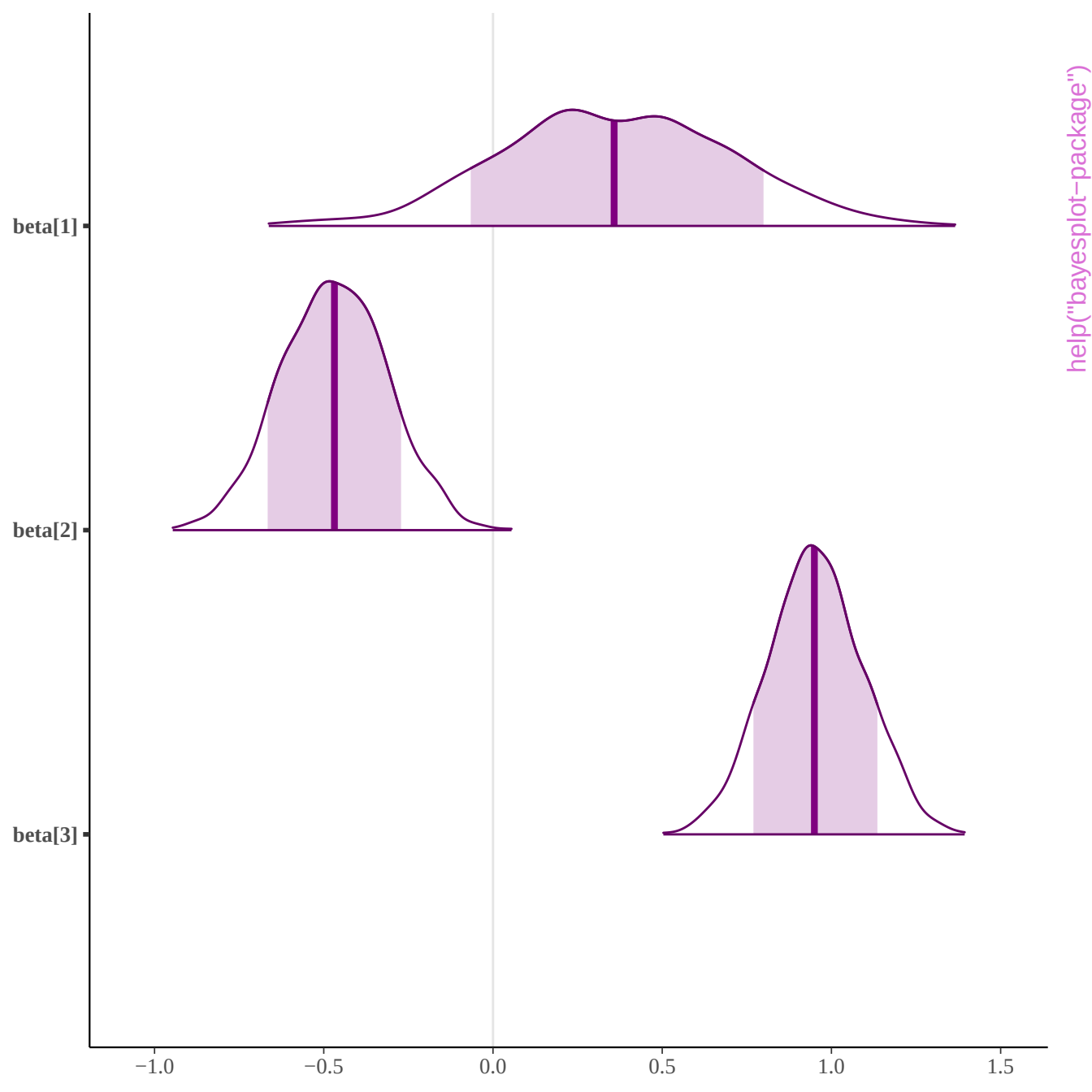

150
100
50
y
60
70
80
90
100
110
Average y_{rep}
help("bayesplot-helpers")

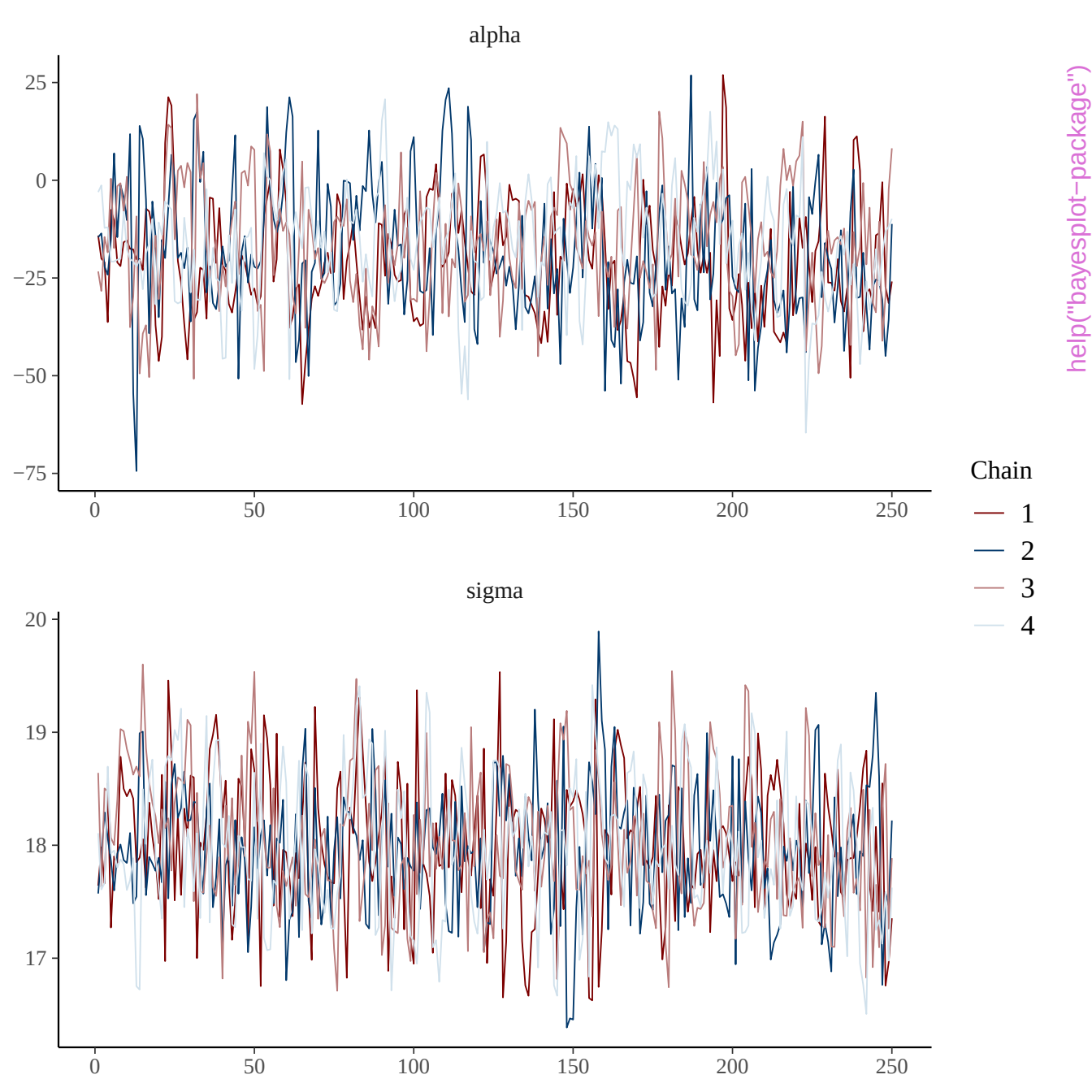

150
100
50
y
60
70
80
90
100
110
Average y_{rep}
help("bayesplot-helpers")

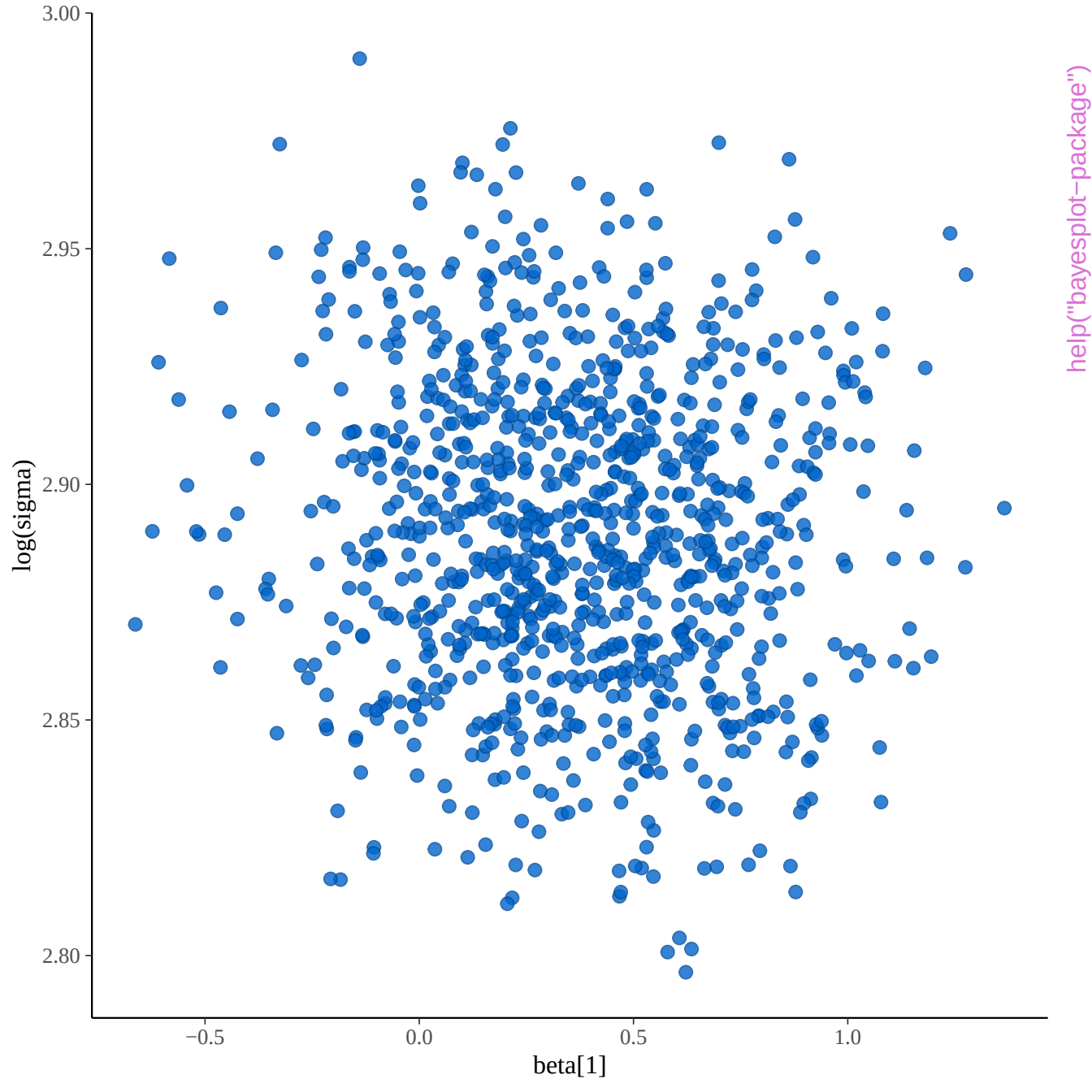

help("bayesplot-helpers")
−0.5
0.0
0.5
1.0
1.5
beta[1]

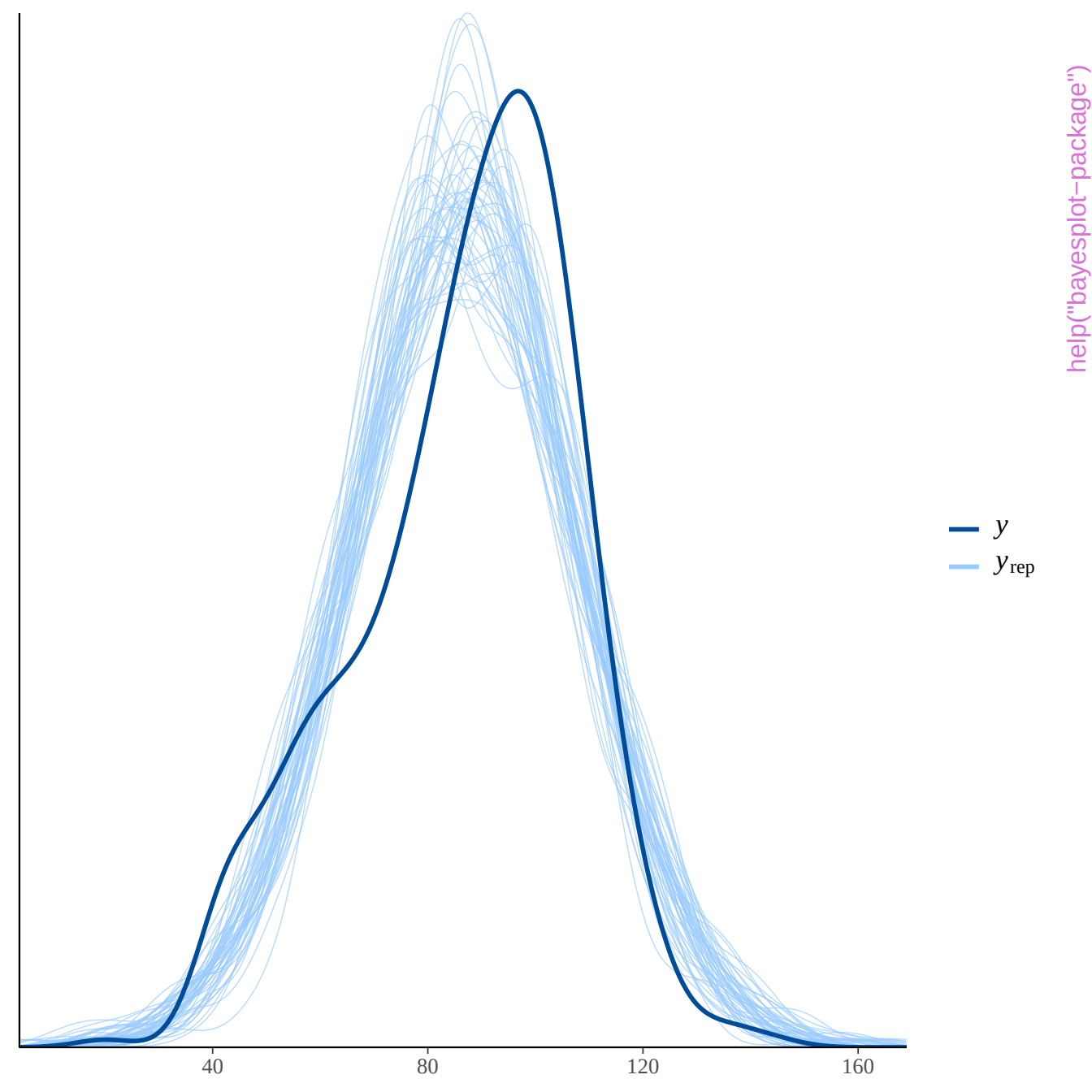

alpha
sigma
beta[1]
beta[2]
beta[3]
−25
0
25
help("bayesplot−package")

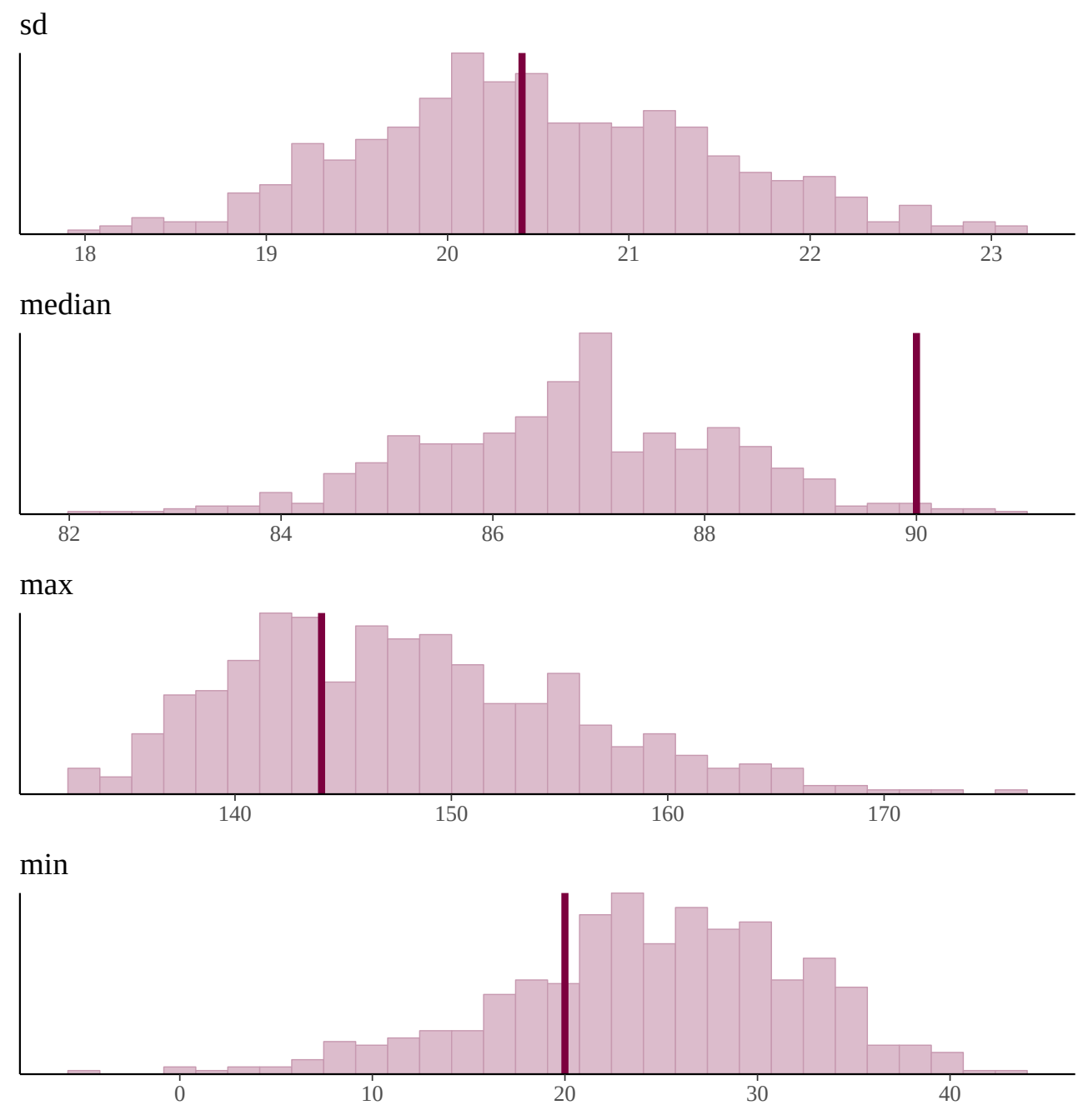

beta[1]
beta[2]
beta[3]
−0.5
0.0
0.5
1.0
help("bayesplot-package")

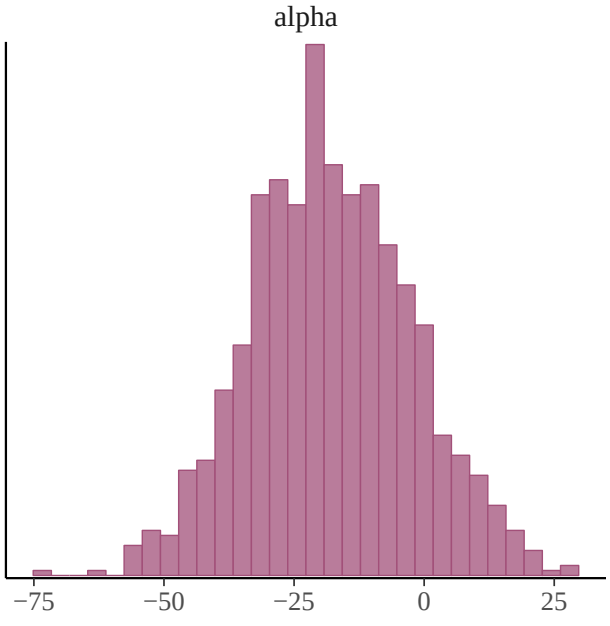

beta[1]
beta[2]
beta[3]
−1.0
−0.5
0.0
0.5
1.0
1.5
help("bayesplot-package")

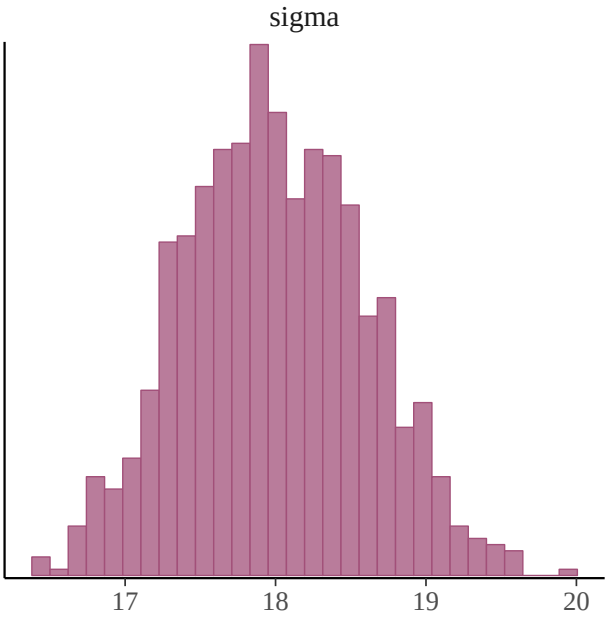

alpha
25
0
−25
−50
−75
0
50
100
150
200
250
sigma
20
19
18
17
0
50
100
150
200
250
Chain
1
2
3
4
help("bayesplot−package")

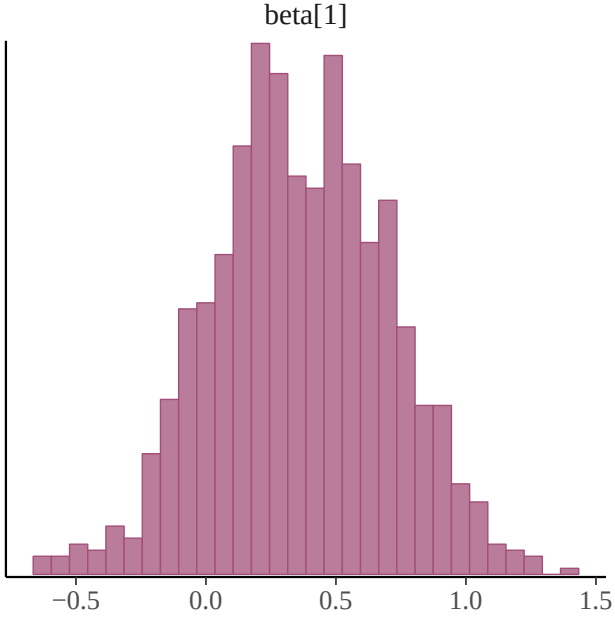

3.00
2.95
2.90
2.85
2.80
log(sigma)
−0.5
0.0
0.5
1.0
beta[1]
help("bayesplot-package")

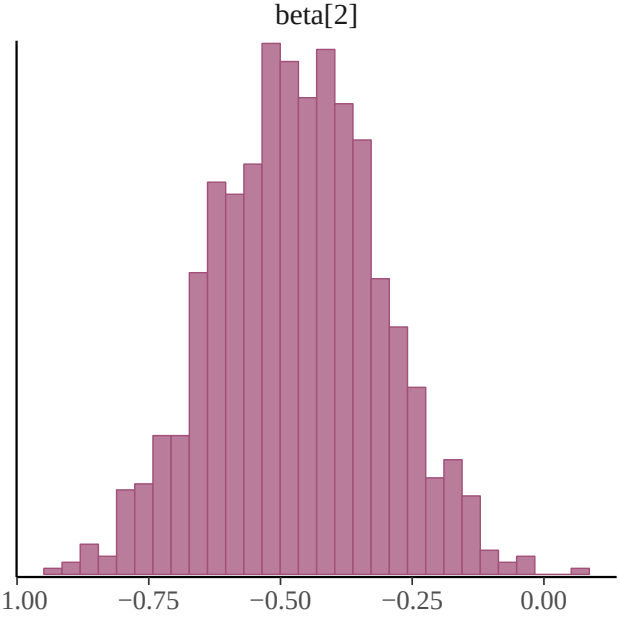

help("bayesplot-package")
y
y rep
40
80
120
160


sd
18
19
20
21
22
23
median
82
84
86
88
90
max
140
150
160
170
min
0
10
20
30
40
help("bayesplot_grid")

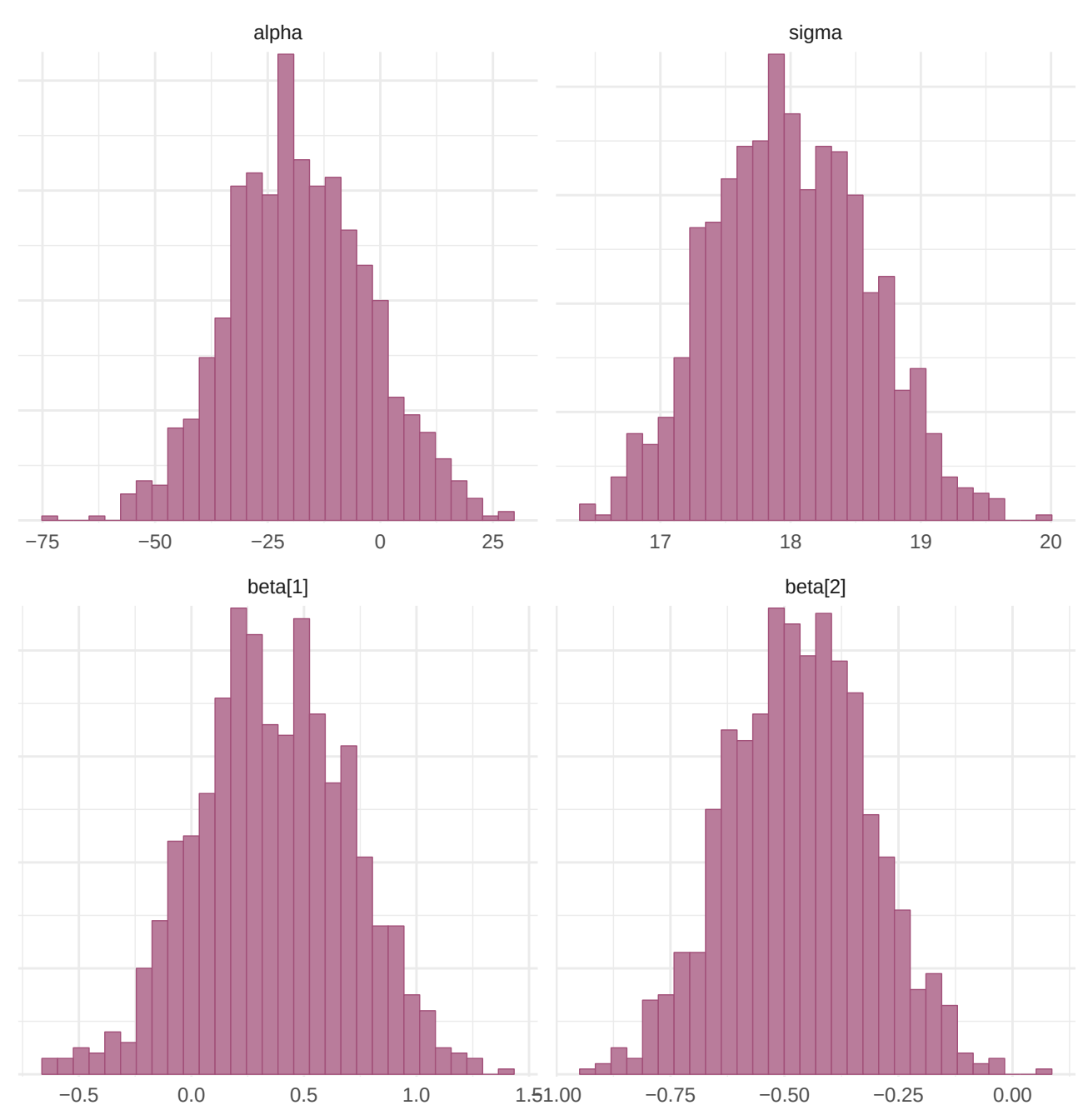


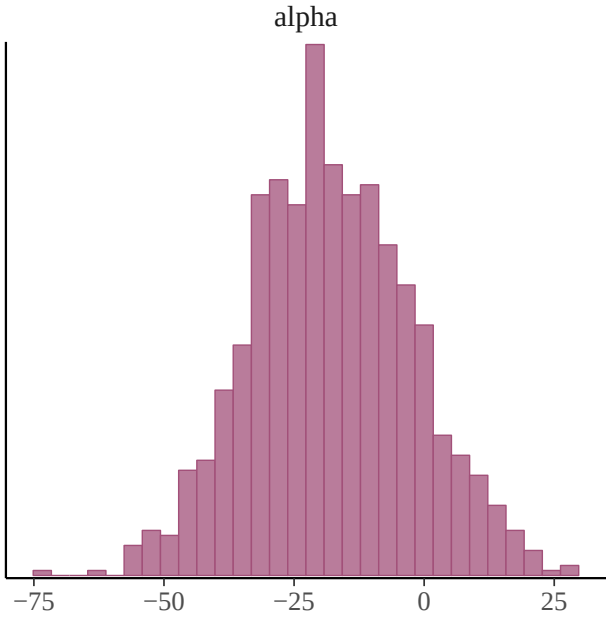


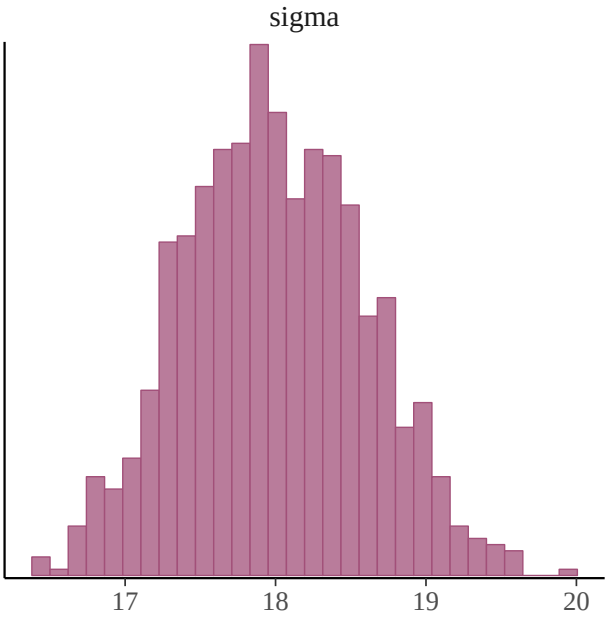


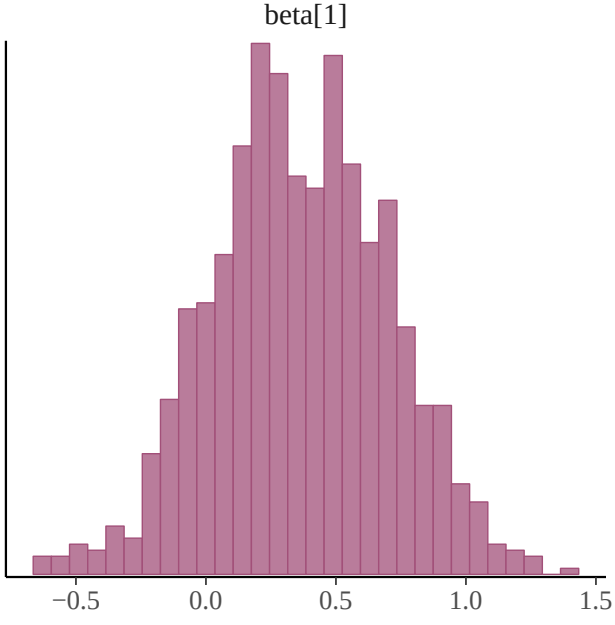


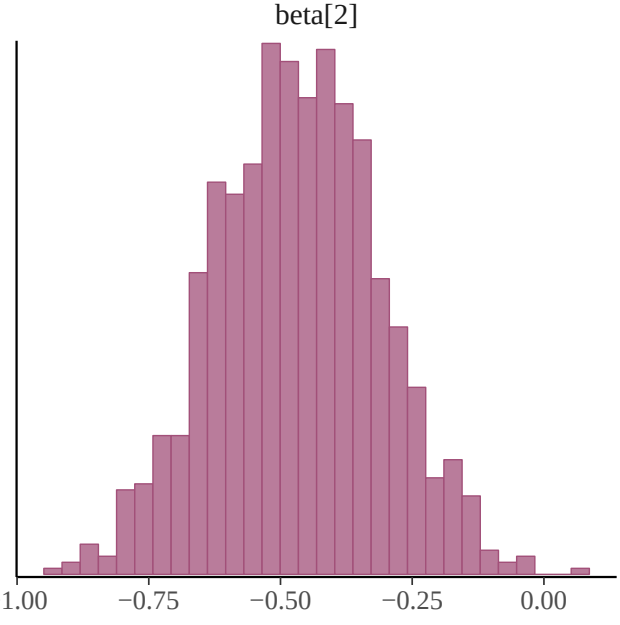
help("bayesplot_theme_get")


alpha
sigma
beta[1]
beta[2]
−75
−50
−25
0
25
17
18
19
20
−0.5
0.0
0.5
1.0
1.5
−1.00
−0.75
−0.50
−0.25
0.00
help("bayesplot_theme_get")

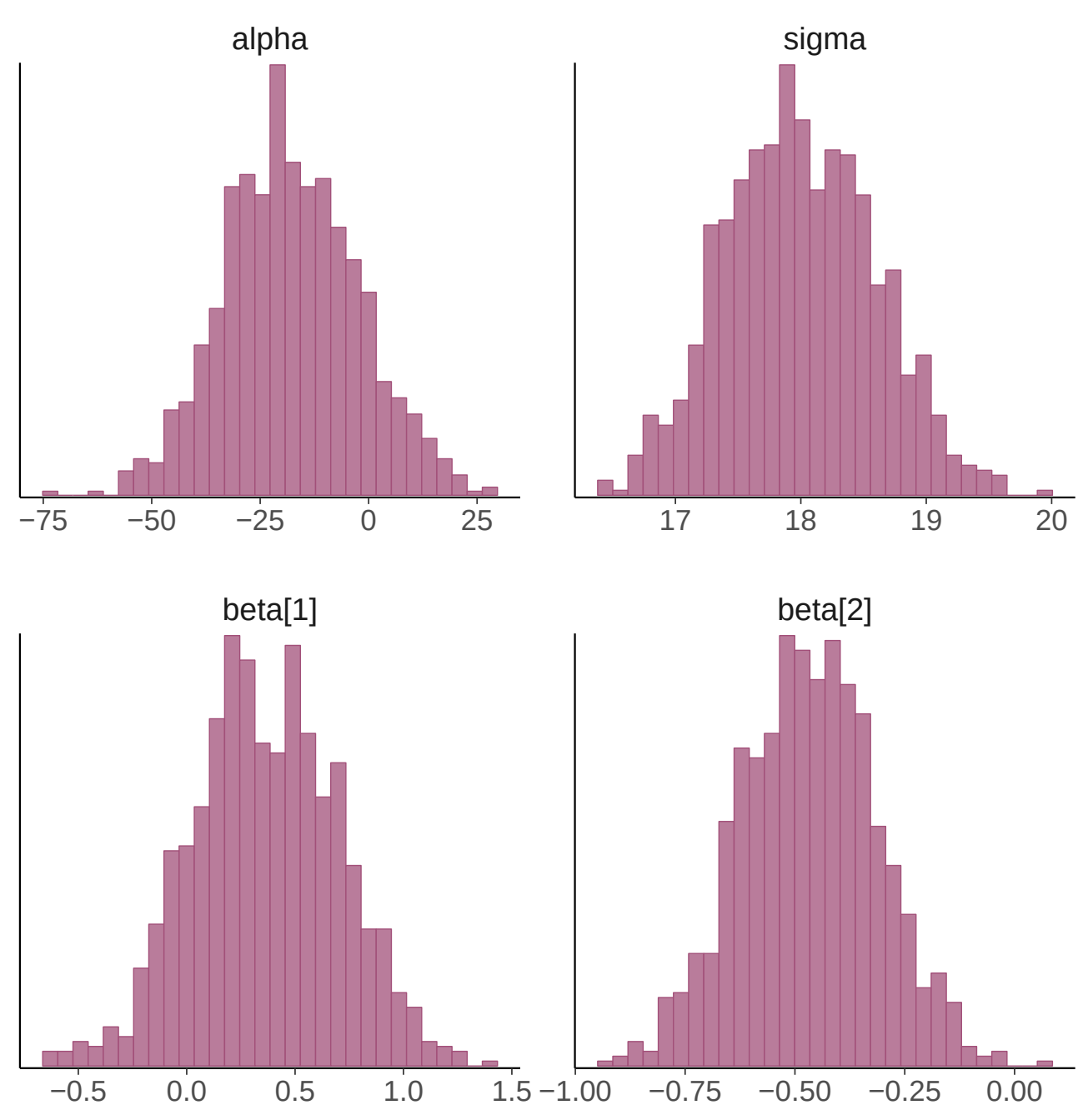


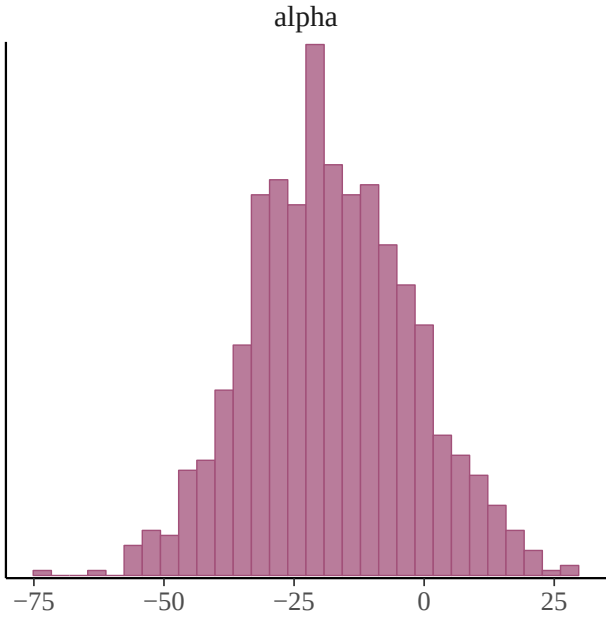


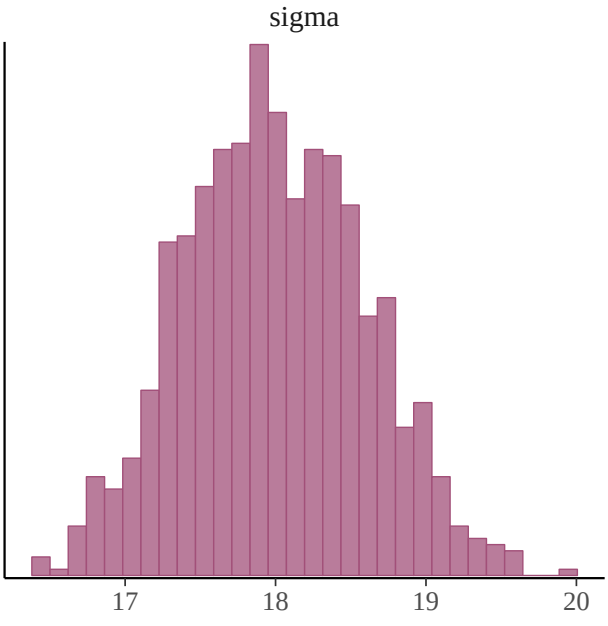


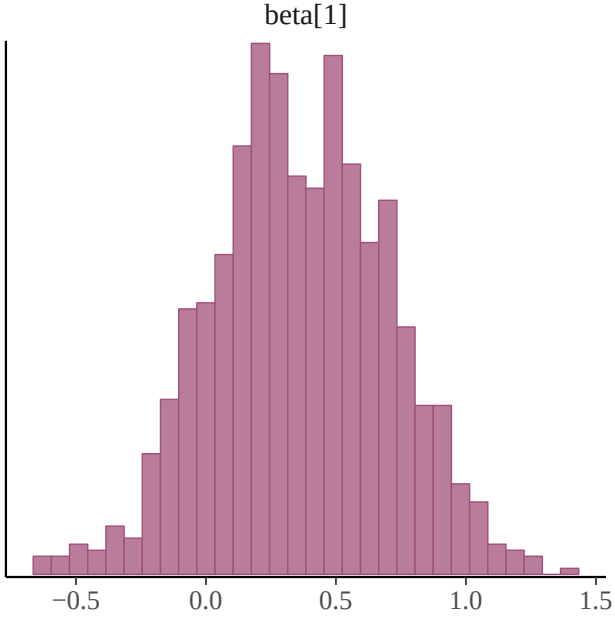


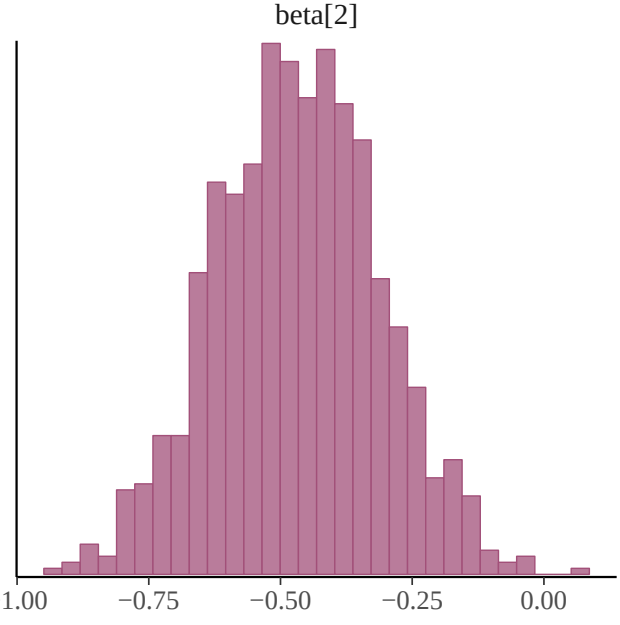
help("bayesplot_theme_get")


alpha
−75
−50
−25
0
25
sigma
17
18
19
20
beta[1]
−0.5
0.0
0.5
1.0
1.5
beta[2]
−1.00
−0.75
−0.50
−0.25
0.00
help("bayesplot_theme_get")

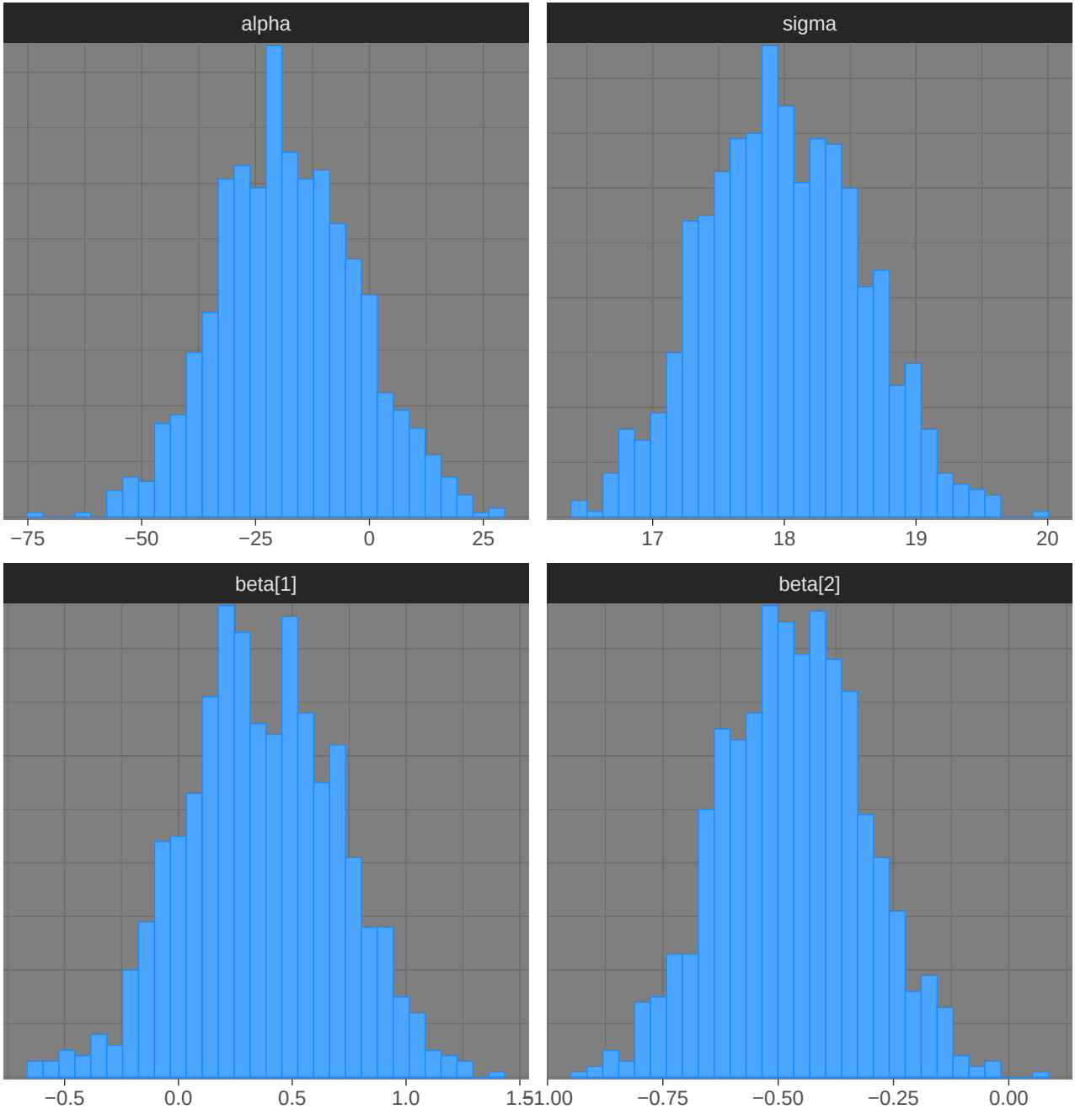




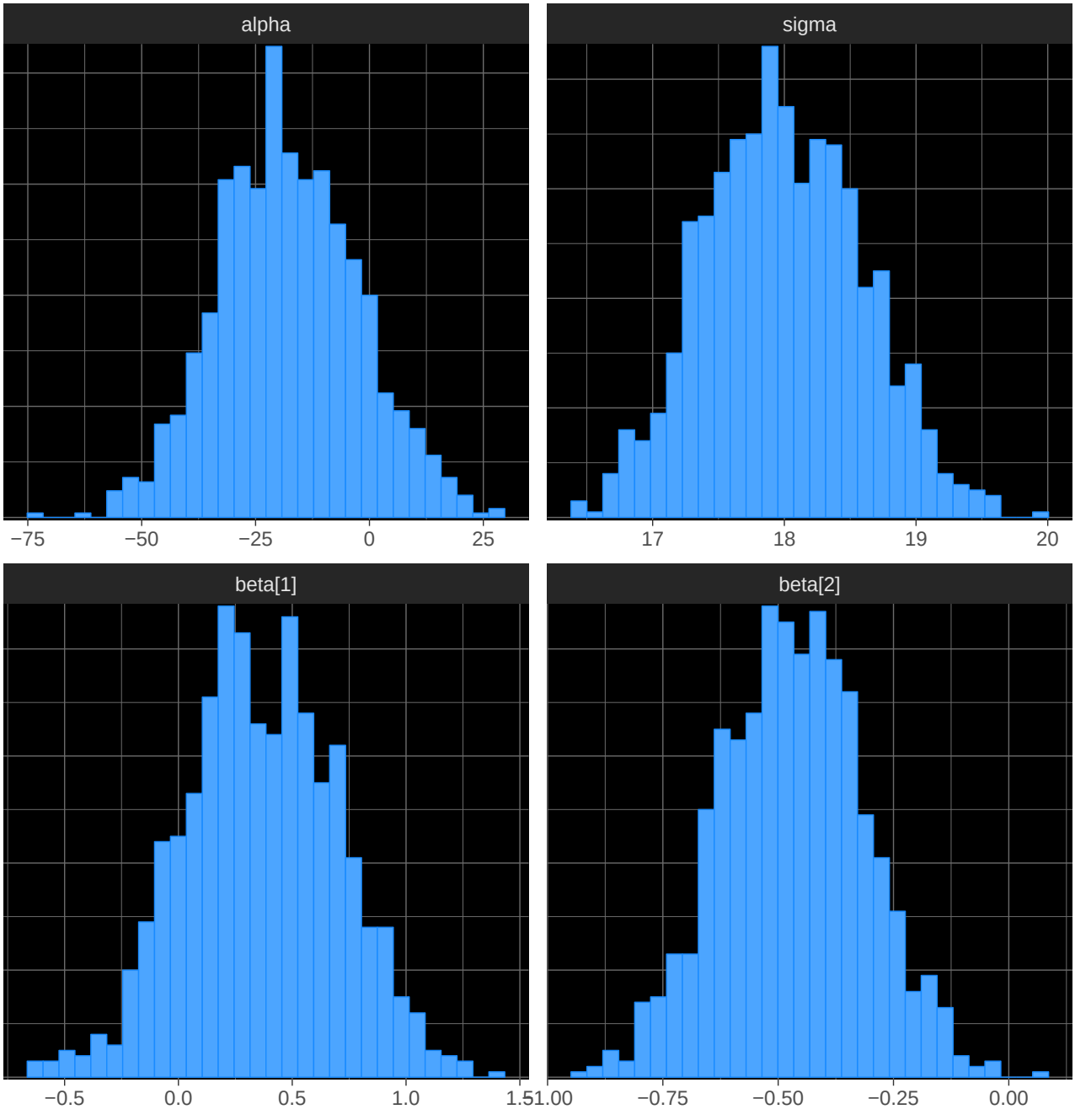


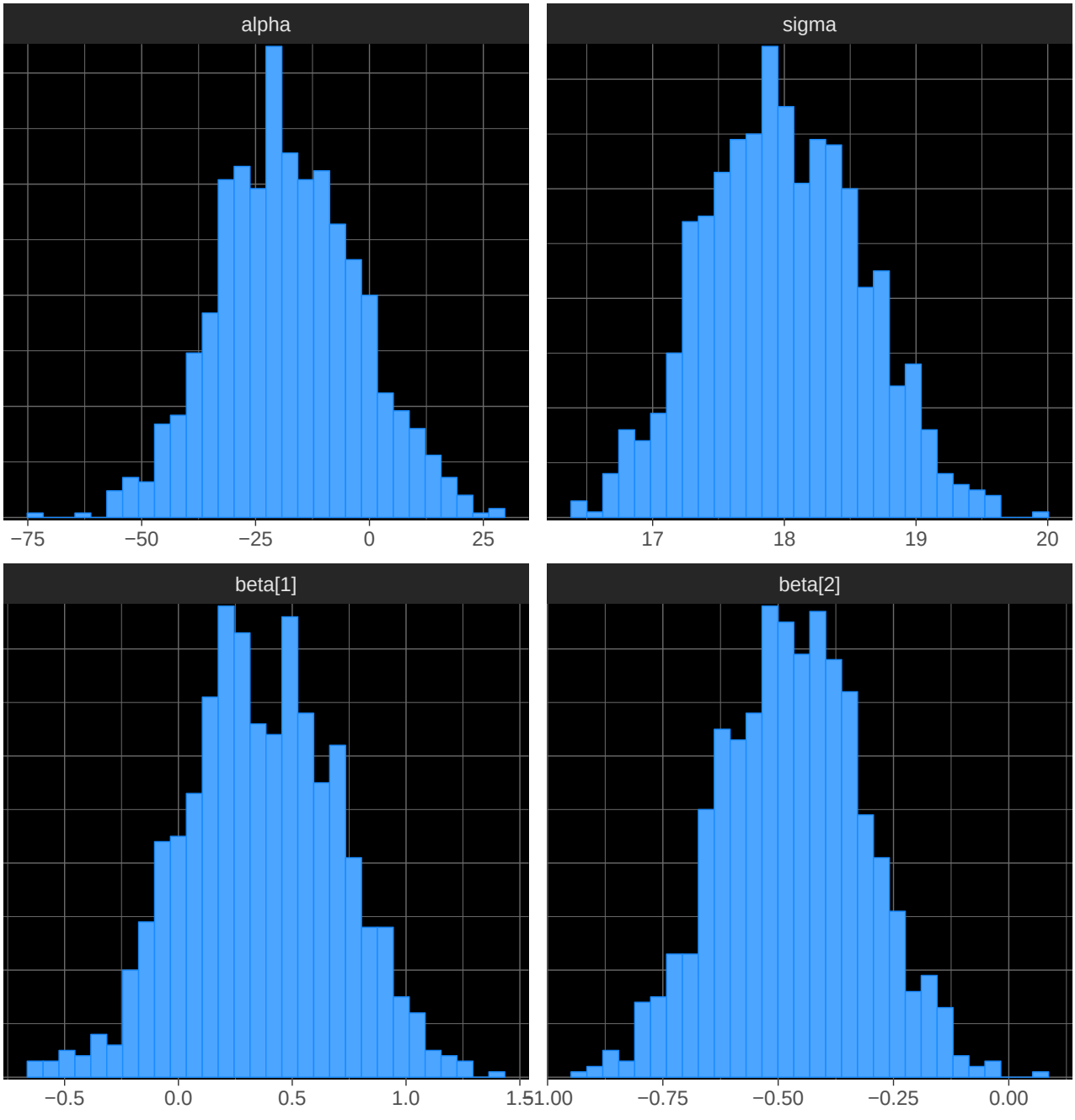


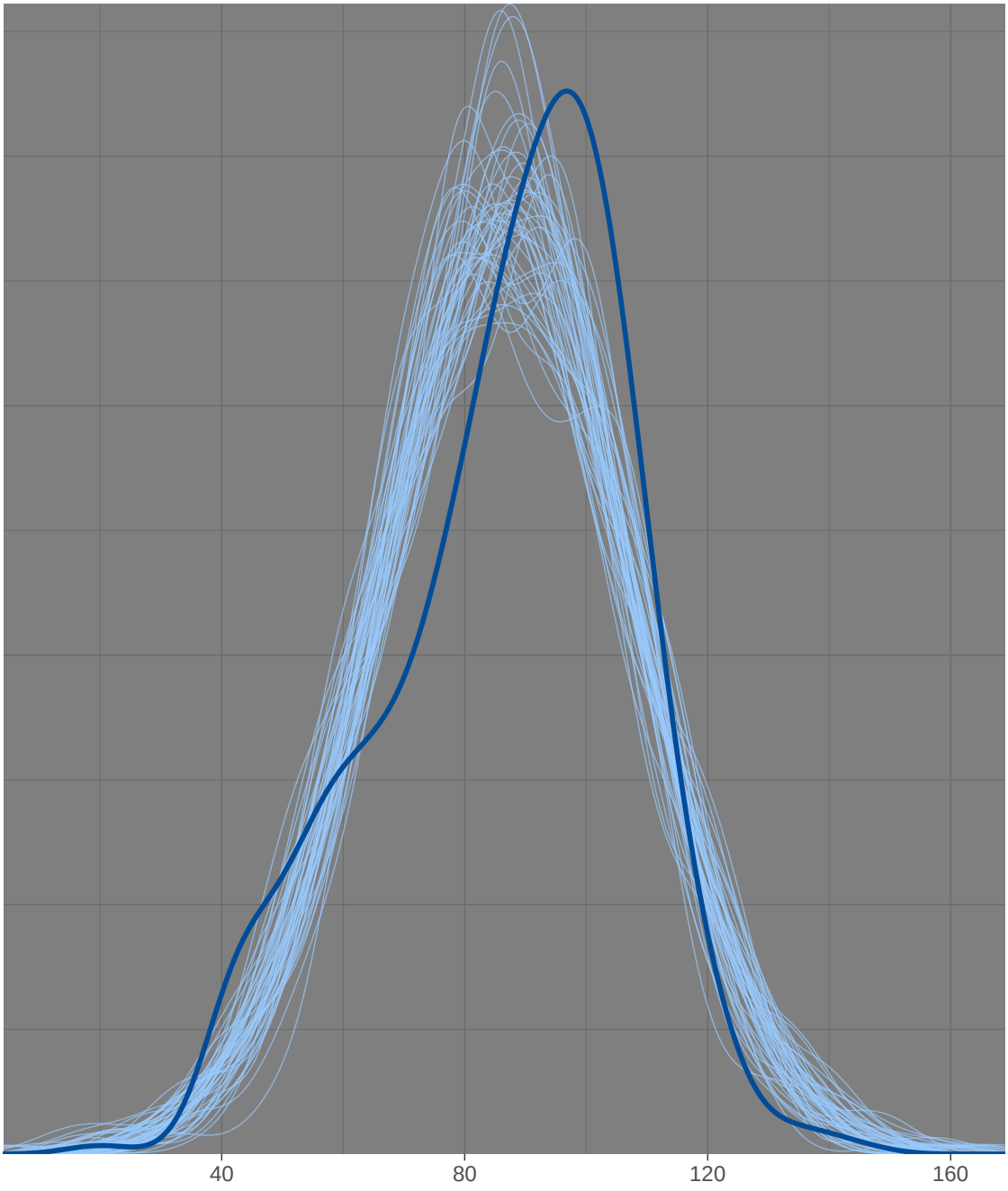
help("bayesplot_theme_get")



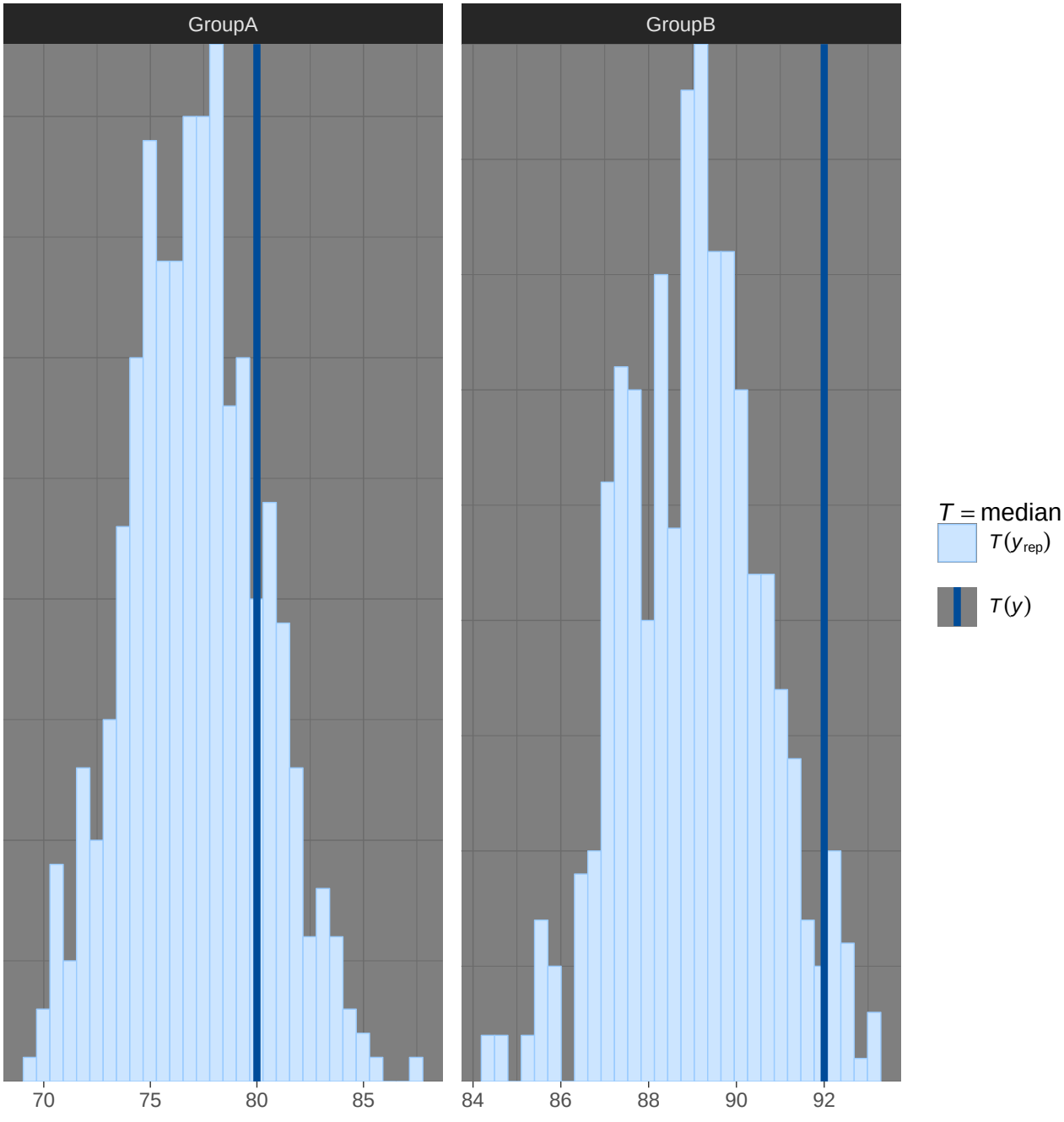
help("bayesplot_theme_get")

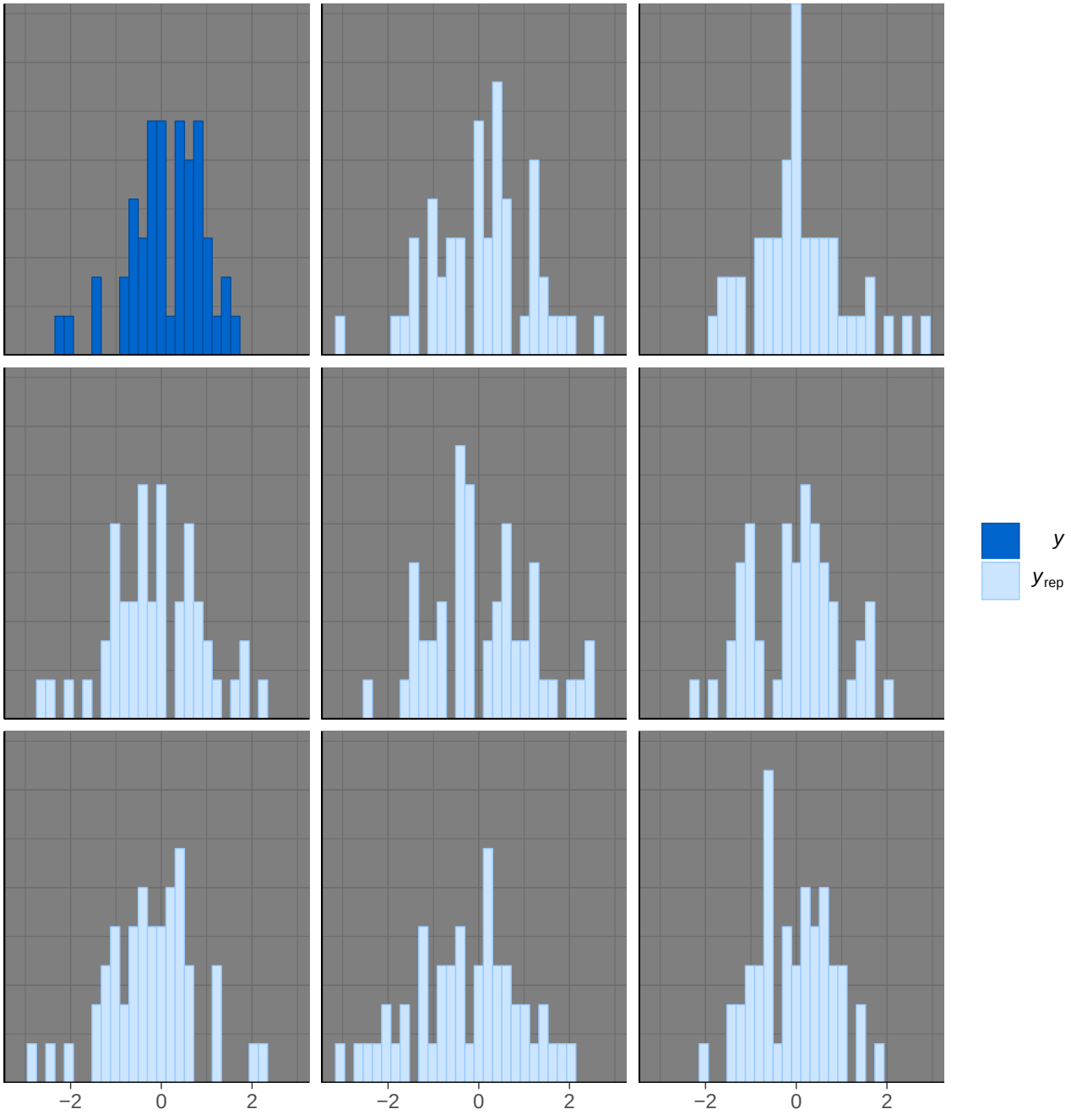

alpha
sigma
beta[1]
beta[2]
−75
−50
−25
0
25
17
18
19
20
−0.5
0.0
0.5
1.0
1.5
1.00
−0.75
−0.50
−0.25
0.00
help("bayesplot_theme_get")


alpha
sigma
beta[1]
beta[2]
−75
−50
−25
0
25
17
18
19
20
−0.5
0.0
0.5
1.0
1.5
1.00
−0.75
−0.50
−0.25
0.00
help("bayesplot_theme_get")

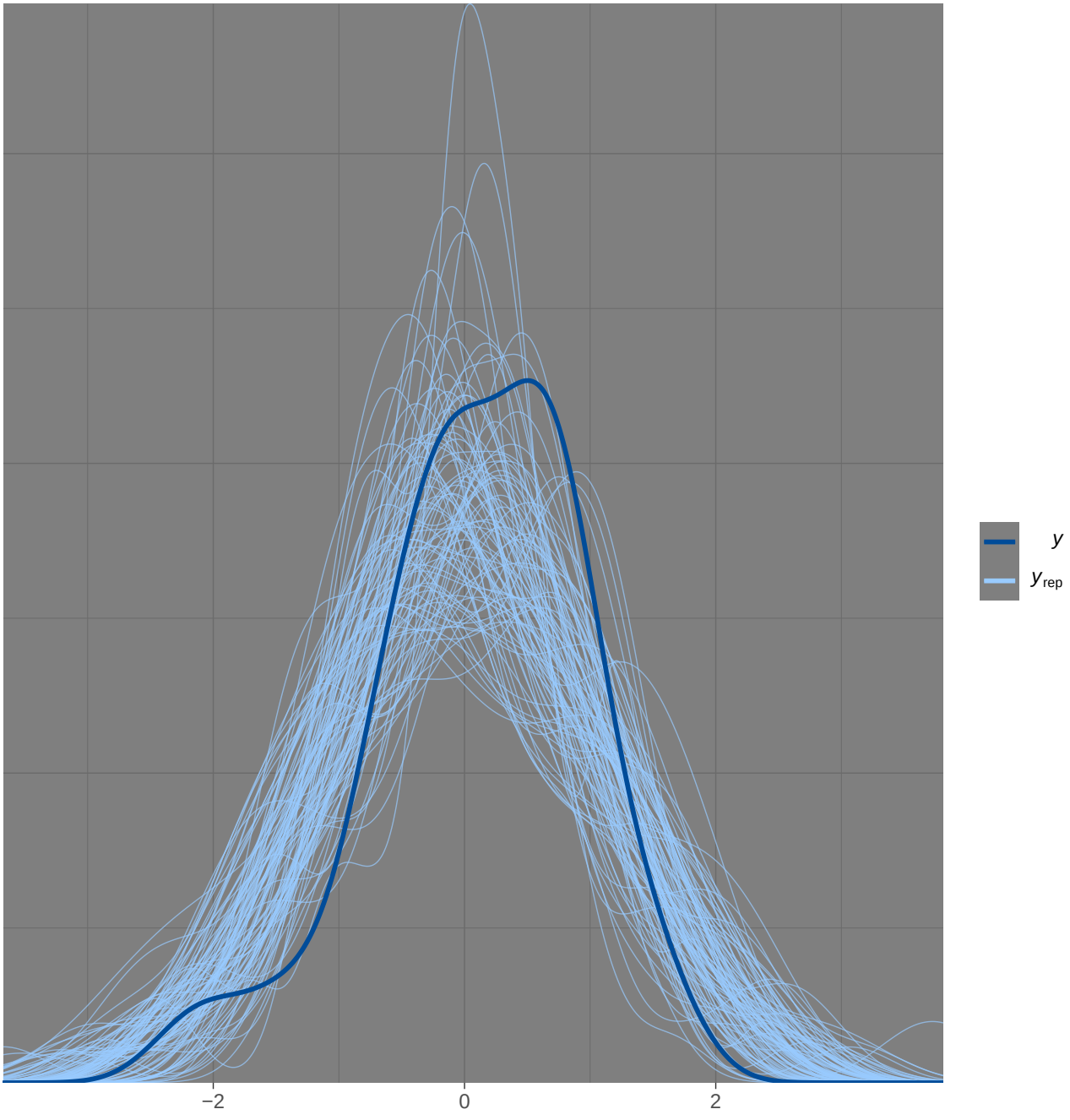


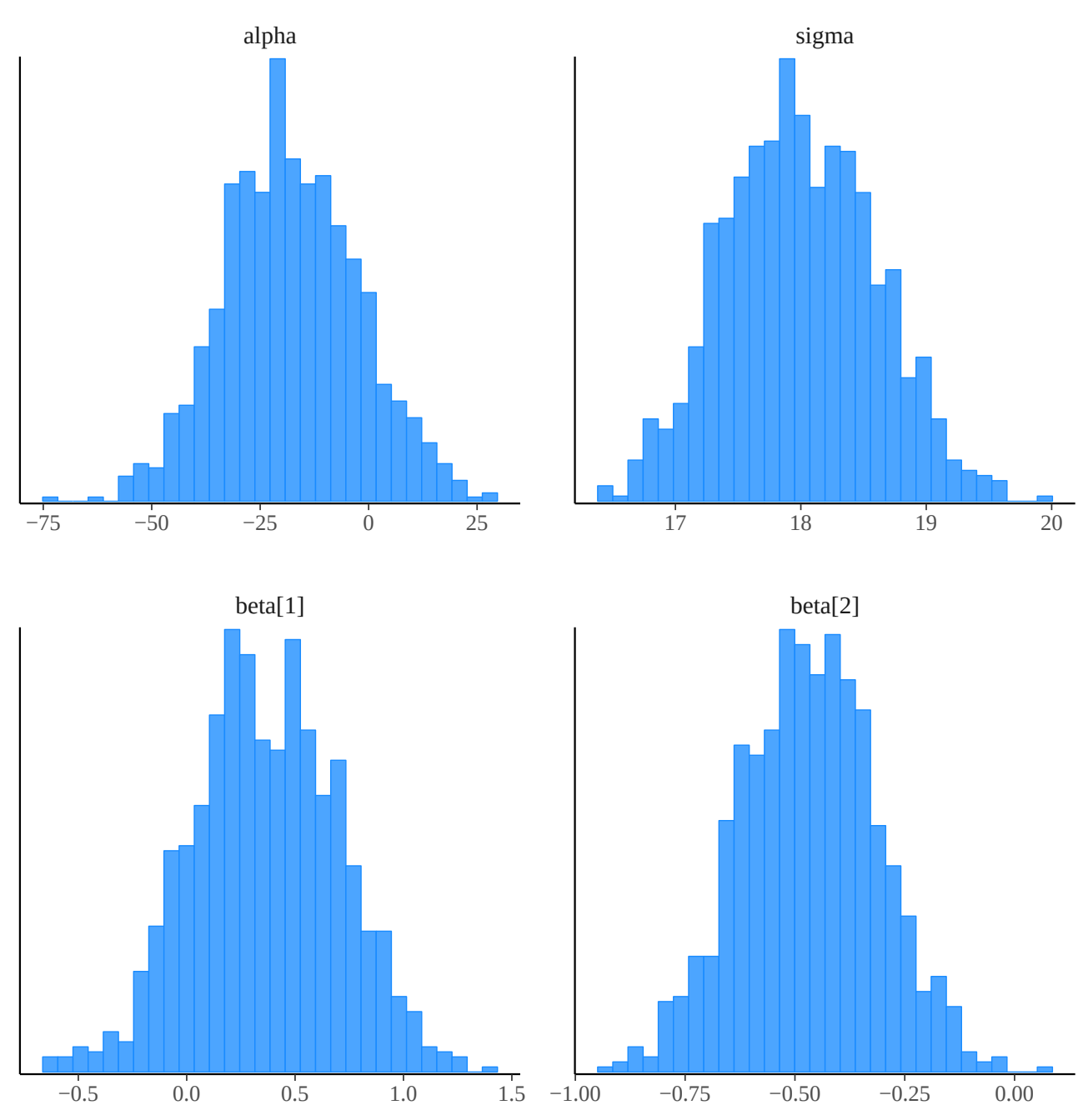
help("pp_check")

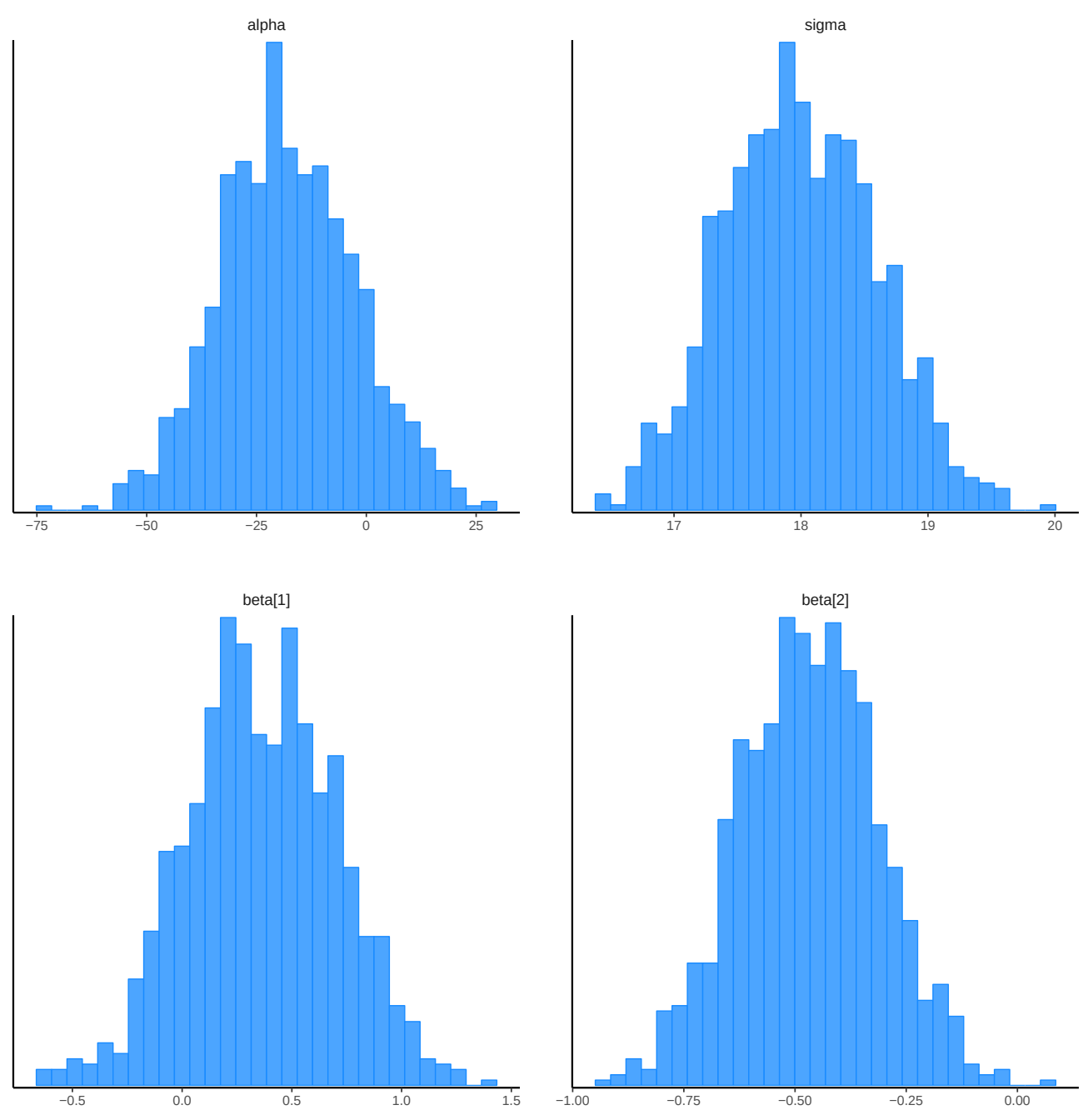

GroupA
GroupB
70
75
80
85
84
86
88
90
92
T = median
T(y_rep)
T(y)
help("pp_check")

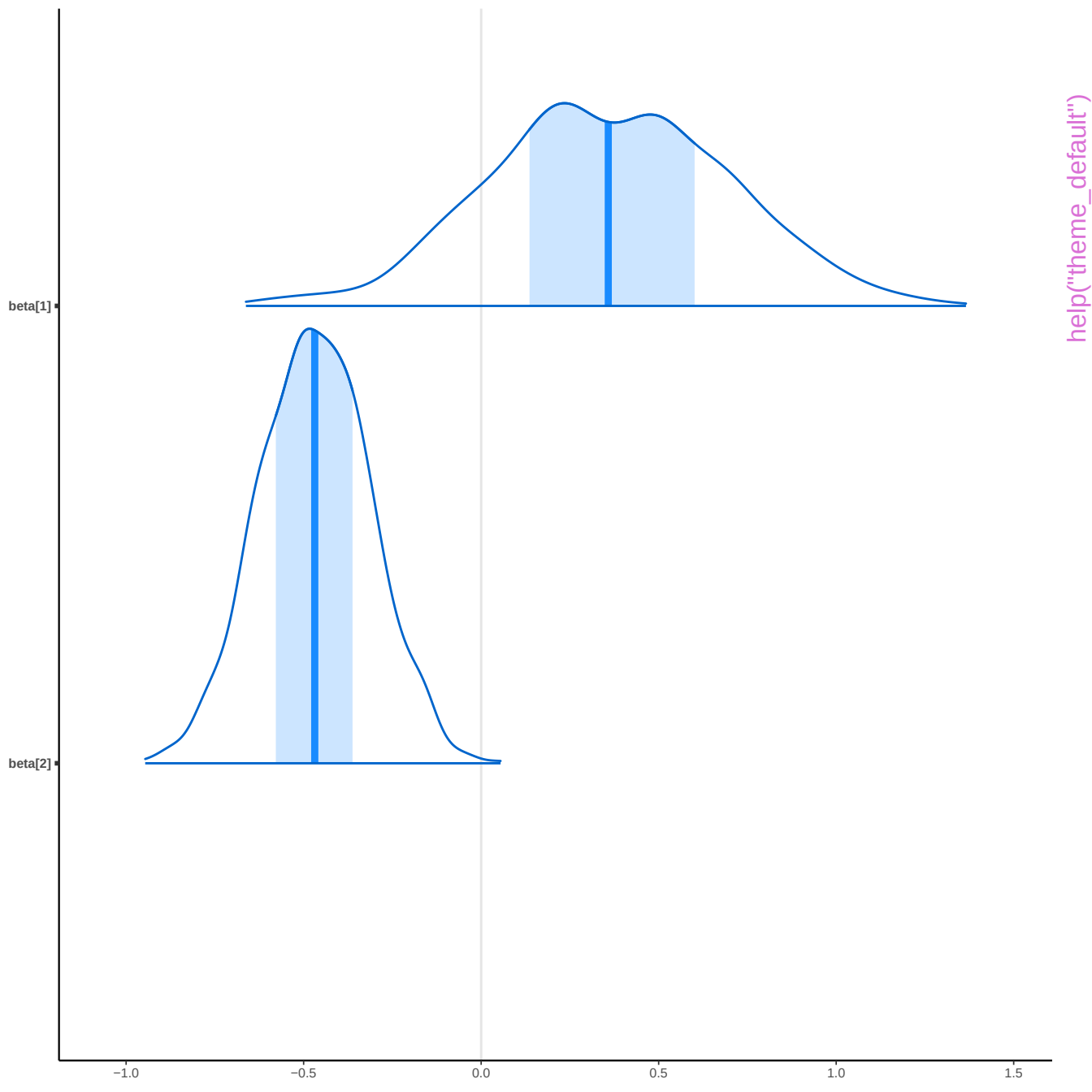


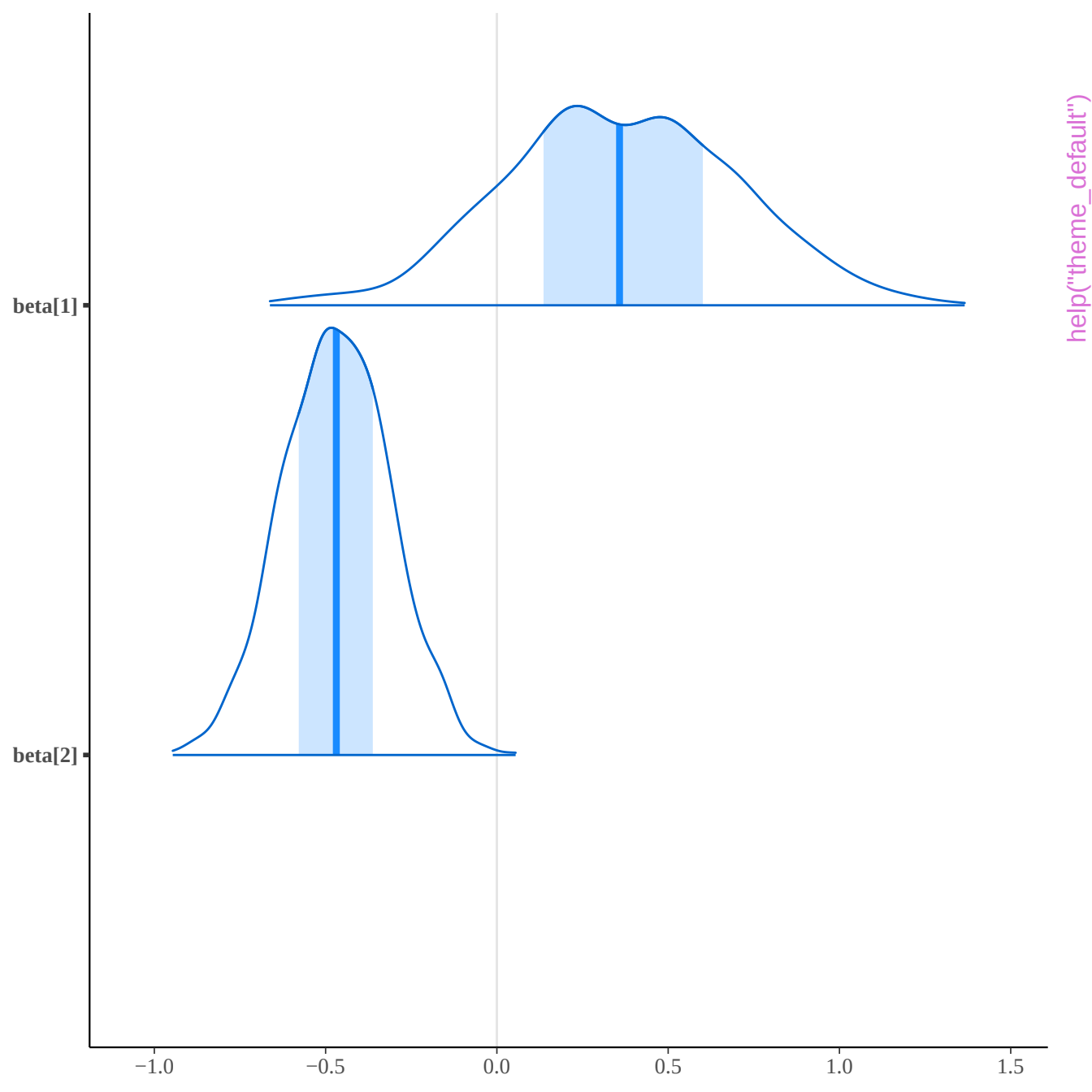
help("pp_check")


help("pp_check")
y
y_{rep}
−2
0
2


alpha
−75
−50
−25
0
25
sigma
17
18
19
20
beta[1]
−0.5
0.0
0.5
1.0
1.5
beta[2]
−1.00
−0.75
−0.50
−0.25
0.00
help("theme_default")


alpha
−75
−50
−25
0
25
sigma
17
18
19
20
beta[1]
−0.5
0.0
0.5
1.0
1.5
beta[2]
−1.00
−0.75
−0.50
−0.25
0.00
help("theme_default")


beta[1]
beta[2]
−1.0
−0.5
0.0
0.5
1.0
1.5
help("theme_default")


beta[1]
beta[2]
−1.0
−0.5
0.0
0.5
1.0
1.5
help("theme_default")