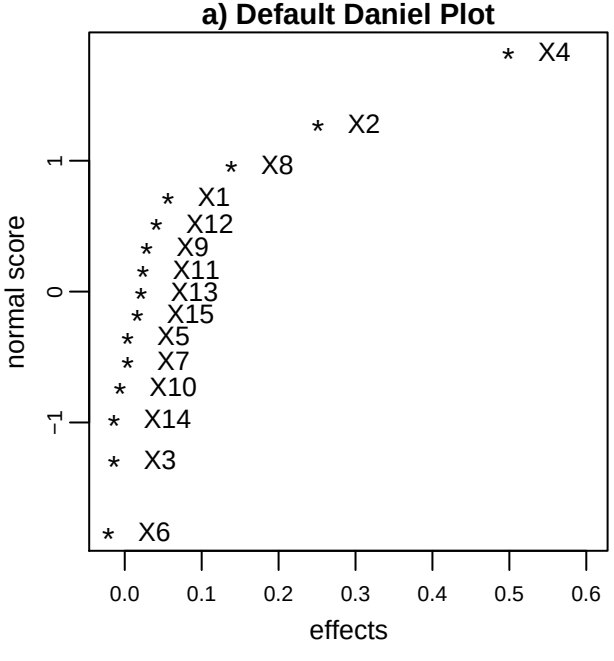
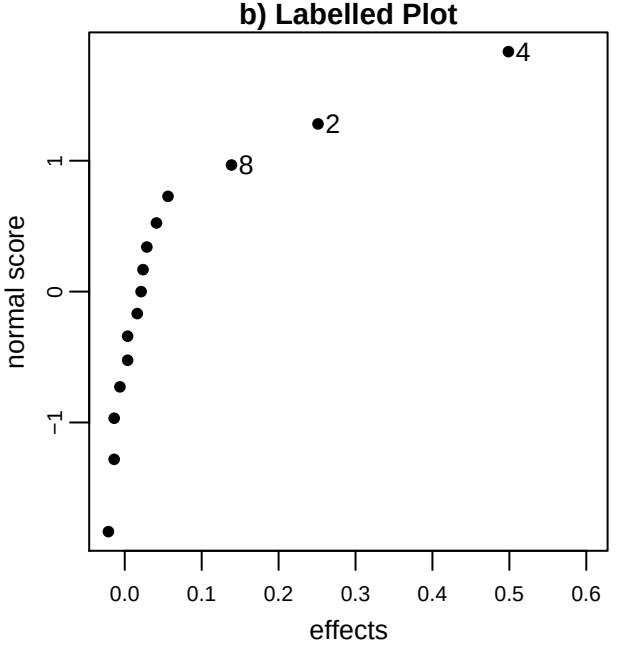
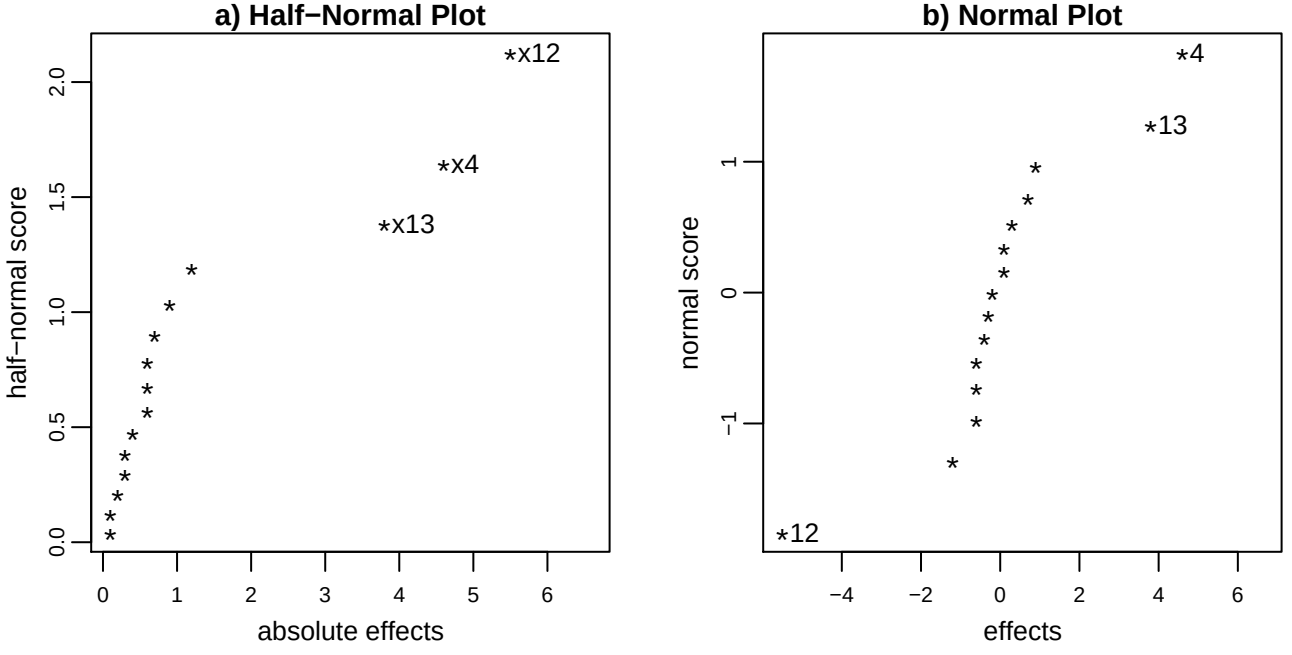
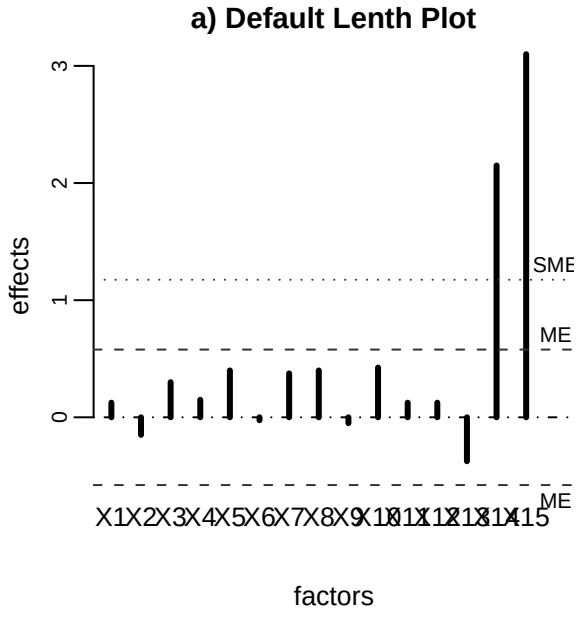
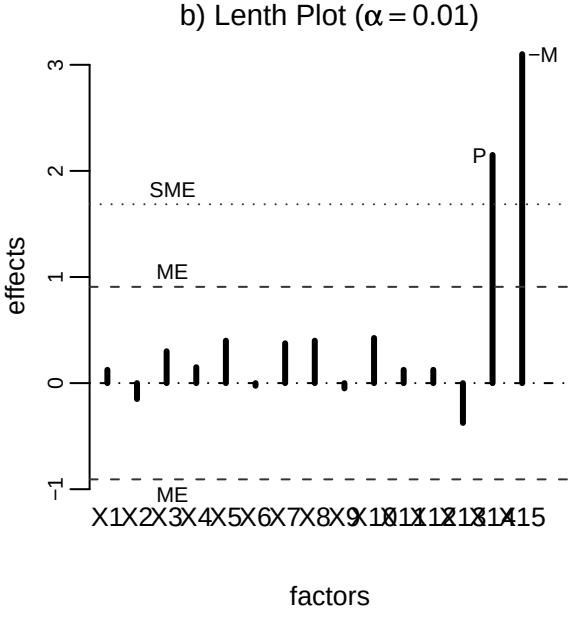
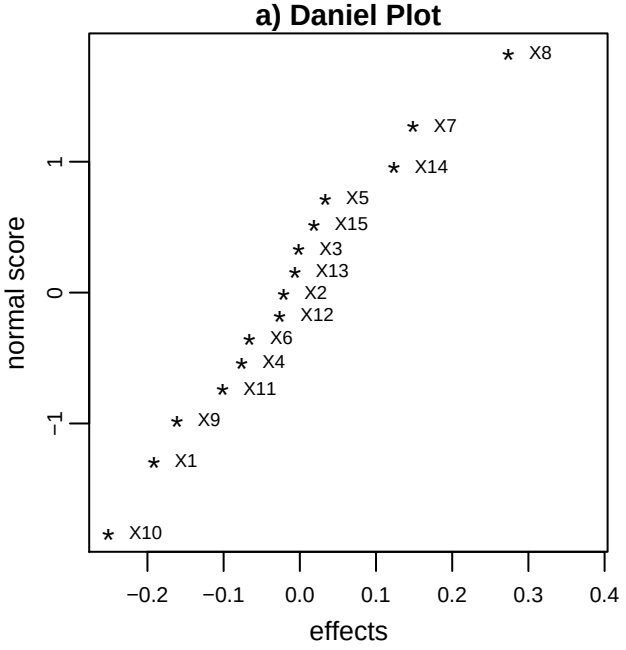

a) Default Daniel Plot
X4
X2
X8
X1
X12
X9
X11
X13
X15
X5
X7
X10
X14
X3
X6
normal score
effects
−1
0
1
0.0
0.1
0.2
0.3
0.4
0.5
0.6

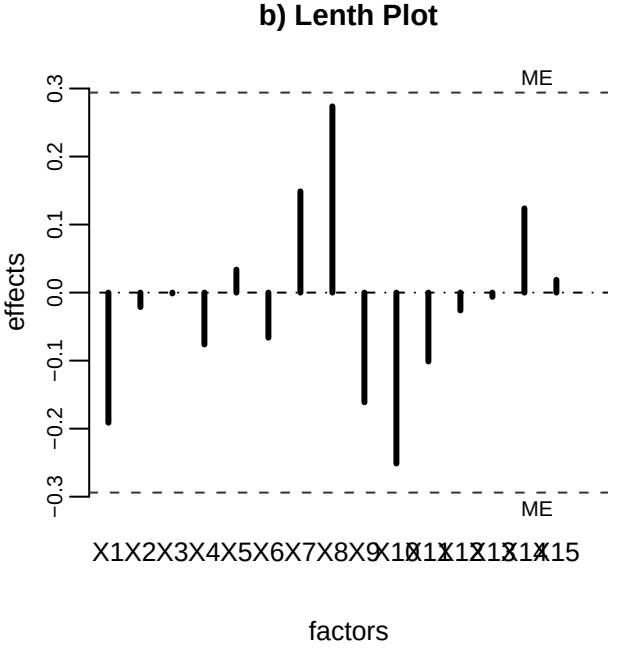

b) Labelled Plot
4
2
8
normal score
effects
−1
0
1
0.0
0.1
0.2
0.3
0.4
0.5
0.6

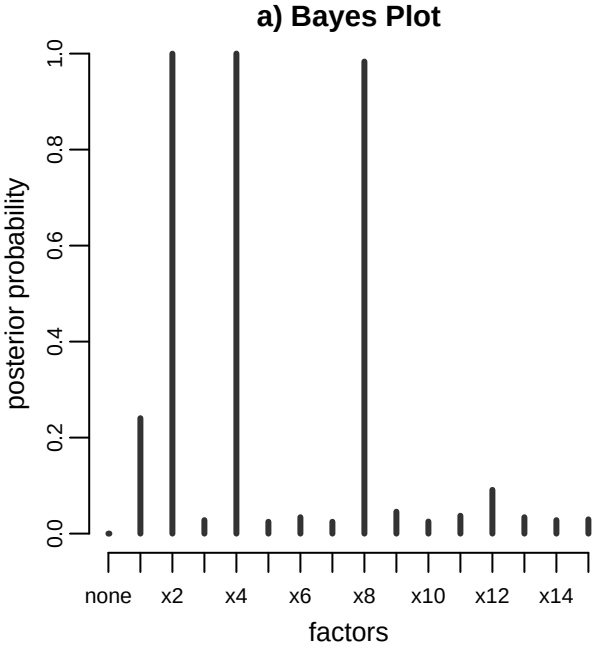

a) Half−Normal Plot
half−normal score
absolute effects
x12
x4
x13
0.0
0.5
1.0
1.5
2.0
0
1
2
3
4
5
6
b) Normal Plot
normal score
effects
4
13
12
−1
0
1
−4
−2
0
2
4
6

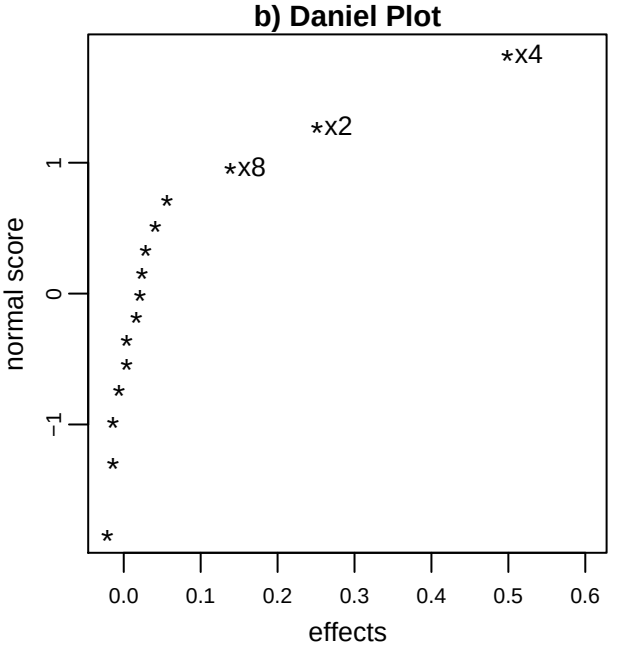

a) Default Lenth Plot
effects
factors
SME
ME
ME
0
1
2
3
X1X2X3X4X5X6X7X8X9X10X11X12X13X14X15

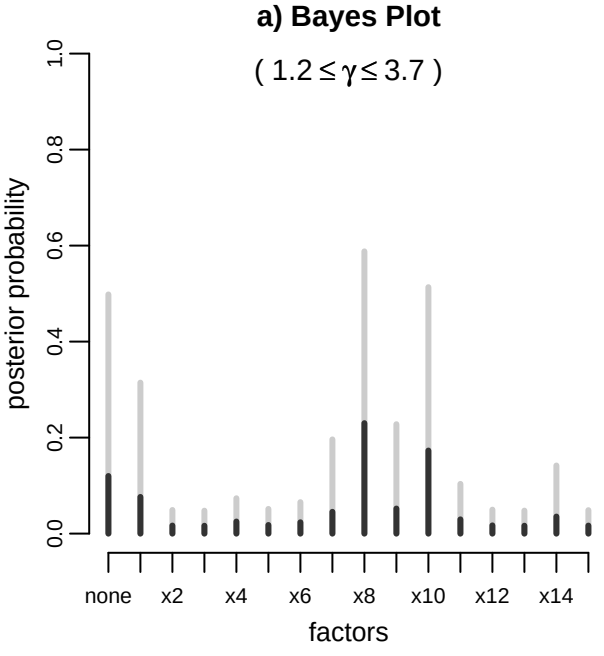

b) Lenth Plot (α = 0.01)
effects
factors
SME
ME
ME
P
M
−1
0
1
2
3
X1X2X3X4X5X6X7X8X9X10X11X12X13X14X15

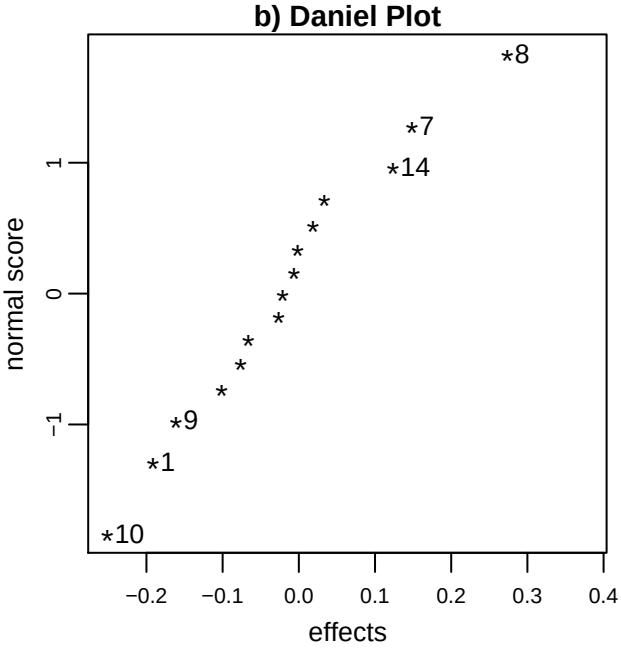

a) Daniel Plot
normal score
effects
X8
X7
X14
X5
X15
X3
X13
X2
X12
X6
X4
X11
X9
X1
X10
−1
0
1
−0.2
−0.1
0.0
0.1
0.2
0.3
0.4

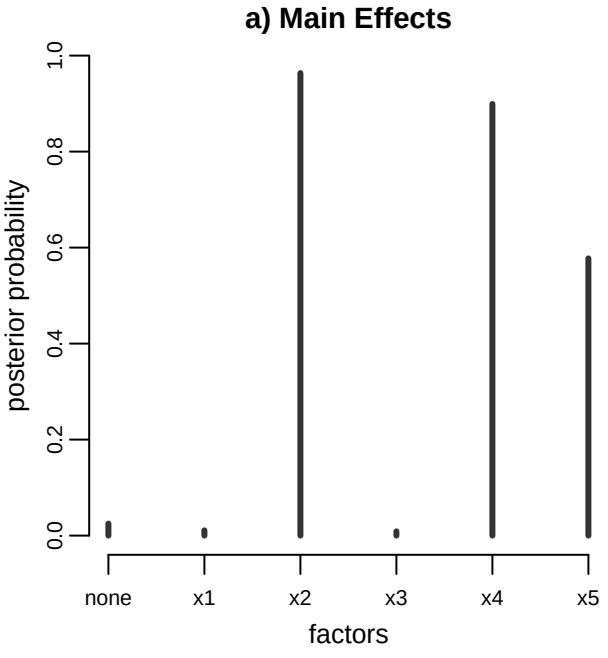

b) Lenth Plot
effects
factors
ME
ME
0.3
0.2
0.1
0.0
−0.1
−0.2
−0.3
X1X2X3X4X5X6X7X8X9X10X11X12X13X14X15

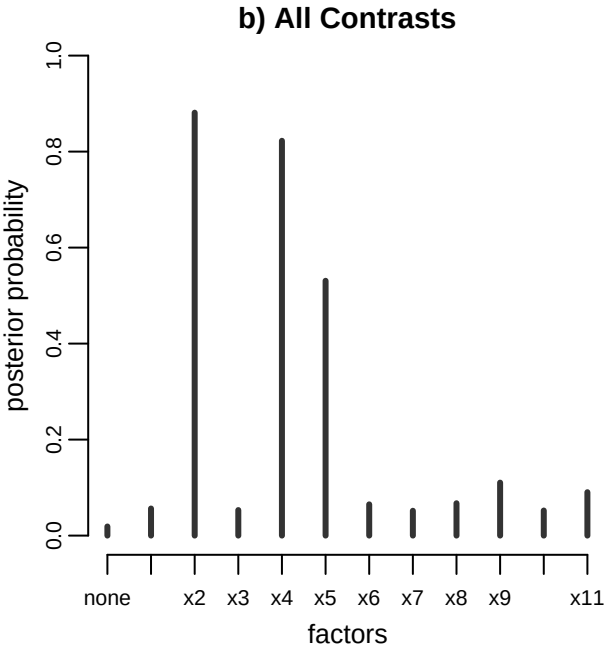

a) Bayes Plot
posterior probability
0.0
0.2
0.4
0.6
0.8
1.0
none
x2
x4
x6
x8
x10
x12
x14
factors

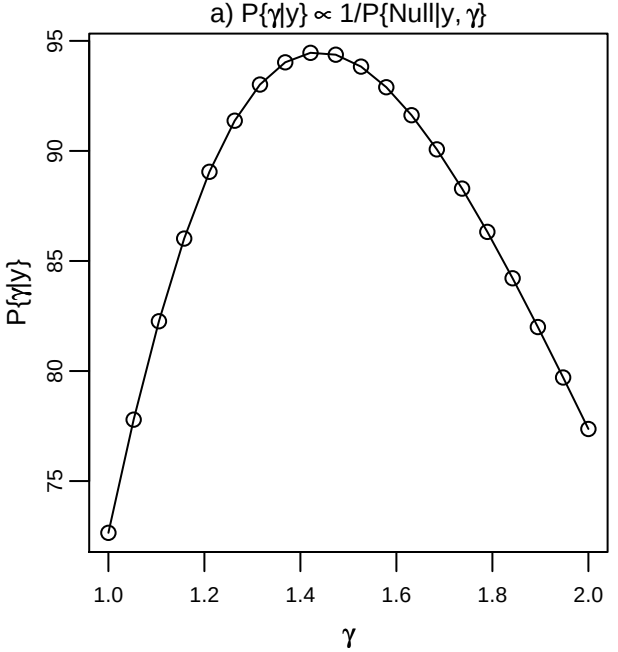

b) Daniel Plot
normal score
−1
0
1
x4
x2
x8
0.0
0.1
0.2
0.3
0.4
0.5
0.6
effects

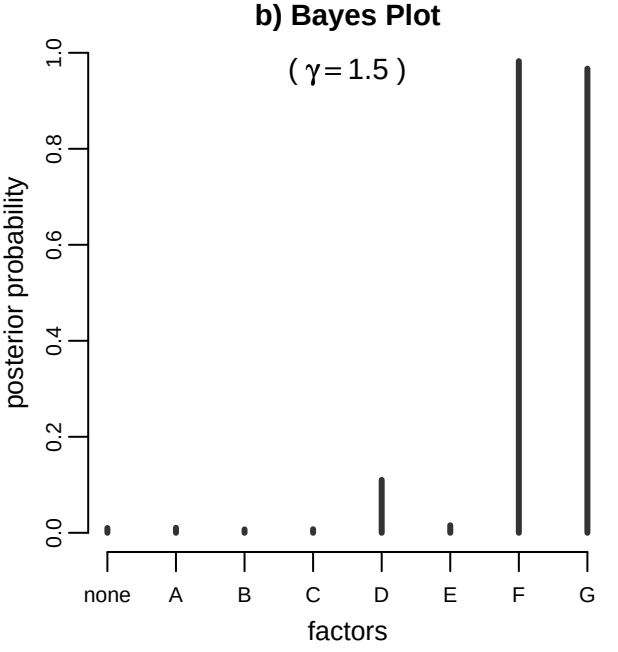

a) Bayes Plot
(1.2 ≤ γ ≤ 3.7)
posterior probability
0.0
0.2
0.4
0.6
0.8
1.0
none
x2
x4
x6
x8
x10
x12
x14
factors

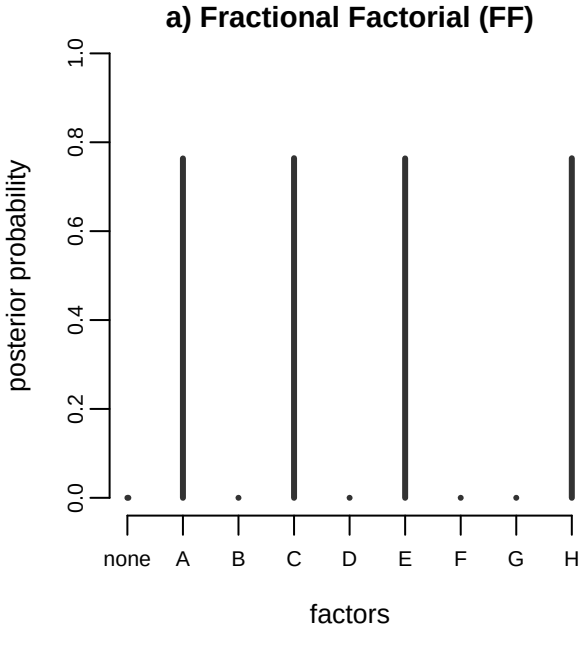

b) Daniel Plot
normal score
−1
0
1
*8
*7
*14
*9
*1
*10
−0.2
−0.1
0.0
0.1
0.2
0.3
0.4
effects

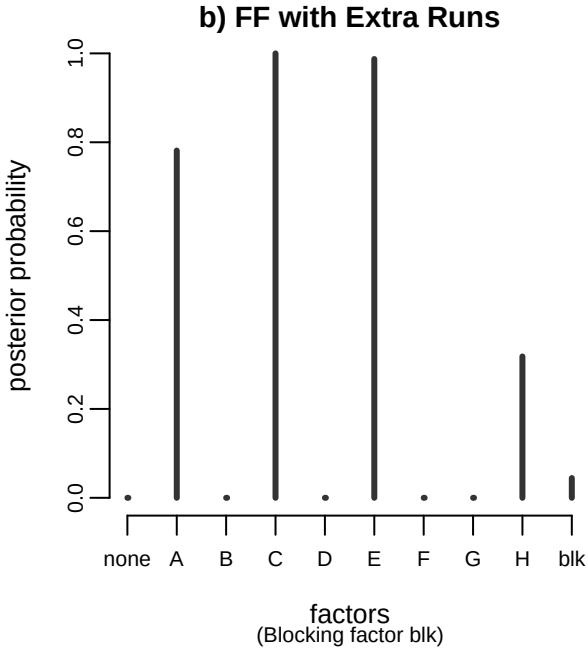

a) Main Effects
posterior probability
0.0
0.2
0.4
0.6
0.8
1.0
none
x1
x2
x3
x4
x5
factors

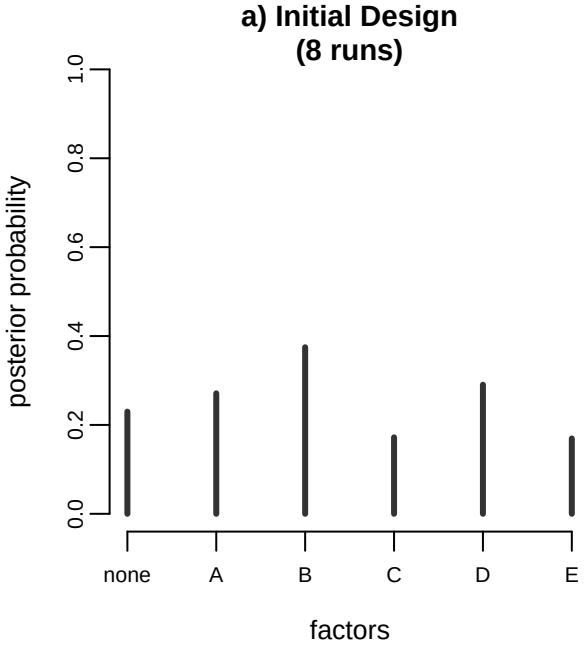

b) All Contrasts
posterior probability
0.0
0.2
0.4
0.6
0.8
1.0
none
x2
x3
x4
x5
x6
x7
x8
x9
x11
factors

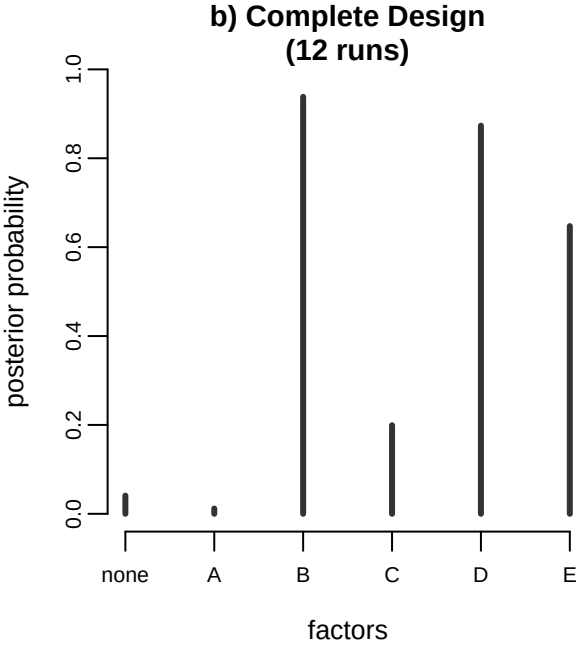

a) P{γ|y} ∝ 1/P{Null|y, γ}
P{γ|y}
95
90
85
80
75
1.0
1.2
1.4
1.6
1.8
2.0
γ


b) Bayes Plot
(γ = 1.5)
posterior probability
0.0
0.2
0.4
0.6
0.8
1.0
none
A
B
C
D
E
F
G
factors

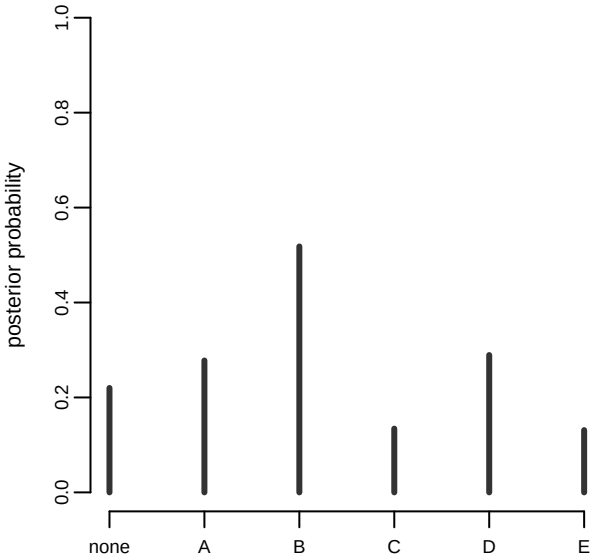

a) Fractional Factorial (FF)
posterior probability
0.0
0.2
0.4
0.6
0.8
1.0
none
A
B
C
D
E
F
G
H
factors


b) FF with Extra Runs
posterior probability
0.0
0.2
0.4
0.6
0.8
1.0
none
A
B
C
D
E
F
G
H
blk
factors
(Blocking factor blk)

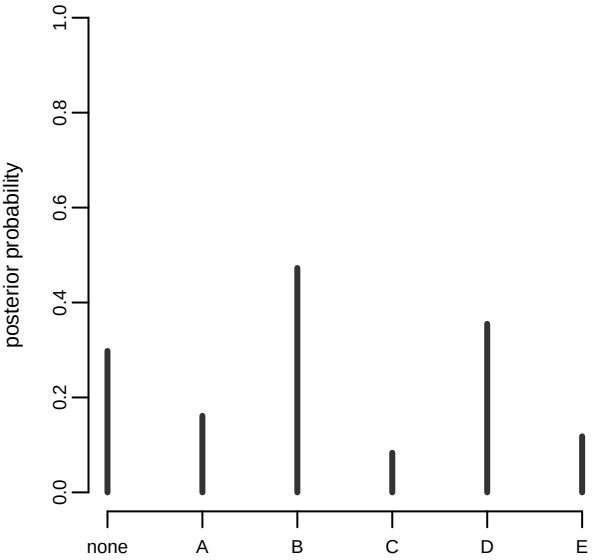

a) Initial Design
(8 runs)
posterior probability
0.0
0.2
0.4
0.6
0.8
1.0
none
A
B
C
D
E
factors


b) Complete Design
(12 runs)
posterior probability
0.0
0.2
0.4
0.6
0.8
1.0
none
A
B
C
D
E
factors

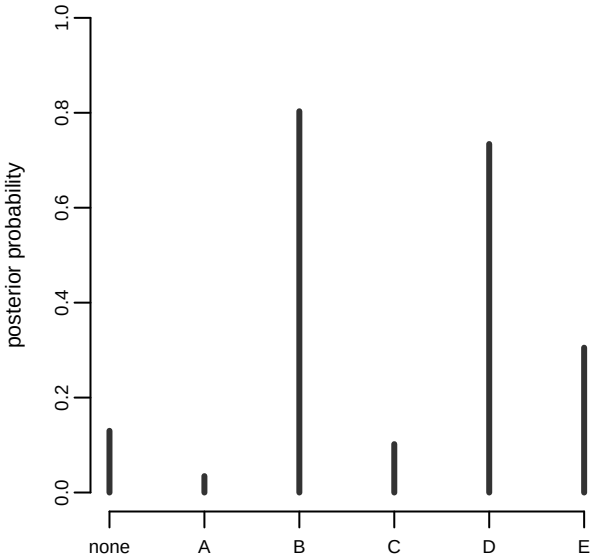
One−at−a−time Experiments



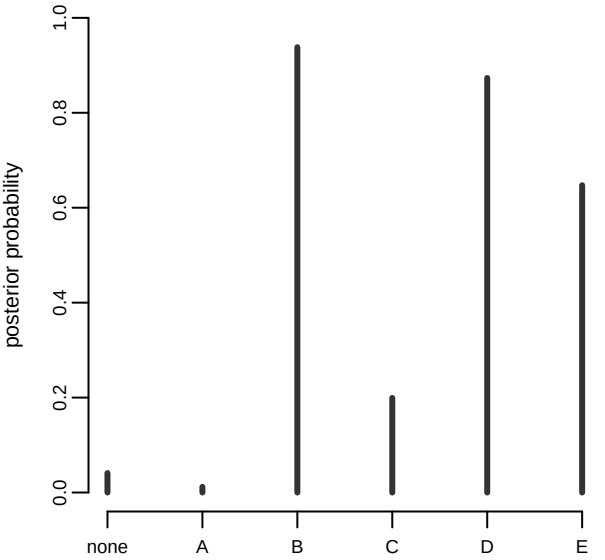
b) 9 runs



c) 10 runs



d) 11 runs



e) 12 runs