

OUTPUT FILE FOR MIXED-EFFECTS LOGISTIC REGRESSION OF POSTMARKET SAFETY PROBLEM INDICATORS UPON PDUFA DEADLINE STATUS. THANKS TO JAKE BOWERS (POLITICAL SCIENCE AND NATIONAL SUPERCOMPUTING LAB, ILLINOIS) FOR REFINING CODE, AND FOR EXPLAINING THE BEAUTIES AND NECESSITIES OF LAPLACE OPTIMIZATION. THE lmer FUNCTIONS ARE AUTHORED BY DOUGLAS BATES (STATISTICS, WISCONSIN).

IN EACH CASE, A MODEL OBJECT IS FITTED ("ESTIMATED") AND A STATISTICAL SUMMARY OF THE MODEL IS GIVEN. THEN MARKOV CHAIN MONTE CARLO SAMPLING IS DONE FROM THE POSTERIOR DISTRIBUTION TO GIVE A BETTER PORTRAIT OF MOMENTS OF THE POSTERIOR DISTRIBUTION. THE mcsamp FUNCTION IS FROM ANDREW GELMAN. THANKS AGAIN TO JAKE FOR EXPLAINING THE HOW-TO OF MCSAMP AND ITS PRODUCT.

FOR RISK RATIOS OF INTEREST, SIMPLY EXPONENTIATE THE COEFFICIENTS. THE ESTIMATES OF INTEREST ARE HIGHLIGHTED IN YELLOW. CODE IS IN RED.

AS A SUMMARY, THIS FILE SHOWS THAT CONVERGENCE IS OBTAINED FOR THREE OF THE FOUR MODELS AND THAT THE COEFFICIENT OF INTEREST - "PREDEAD" - WOULD APPEAR TO BE UNAFFECTED BY OVERFITTING (THE "RHAT" STATISTIC FROM mcsamp EQUALS 1.0 OR 1.1 IN ALL CASES). NOTE, HOWEVER, THAT CONVERGENCE IS NOT OBTAINED IN THE LMER FRAMEWORK FOR THE REGRESSIONS ON THE VARIABLE "COMBOBBW," WHICH IS THE BLACK-BOX WARNINGS MEASURE WITH THE SMALLEST NUMBER OF EVENTS. CONVERGENCE IS, HOWEVER, OBTAINED USING OTHER FRAMEWORKS, INCLUDING THE LME4 FRAMEWORK OF BATES.

THIS FILE BY DANIEL CARPENTER (GOVERNMENT, HARVARD), 20070701.

```
> library(arm)

> library(lme4)

> dandat <- read.csv('c:/fdatemp/pdufadrop-20070615.csv')

> combowit.lmer.clockerror02 <- lmer(combowit ~ (1 | discode) + subyrctr +
predead, family = binomial, data = dandat, subset = subyear > 1962, method =
"Laplace", control = list(msVerbose = TRUE), na.action = na.exclude, model =
TRUE)
relative tolerance set to 2.76026647769554e-05
 0: 362.28386: -3.50143 -0.00578633 1.18904 0.454569
 1: 362.16709: -3.50262 -0.0101469 1.18885 0.454195
 2: 362.07316: -3.51545 -0.00589839 1.18771 0.450057
 3: 361.69472: -3.54215 -0.00965865 1.18513 0.441661
 4: 361.26049: -3.59855 -0.00404615 1.18042 0.429289
 5: 361.09690: -3.63483 -0.00837336 1.18044 0.474597
 6: 360.98636: -3.66607 -0.00575251 1.18316 0.523568
 7: 360.86032: -3.72100 -0.000796239 1.17842 0.505596
 8: 360.76731: -3.78124 -0.00213175 1.18921 0.604614
 9: 360.76285: -3.78193 -0.00351193 1.17853 0.566676
10: 360.75608: -3.79300 -0.00308179 1.20113 0.595332
>
> summary(combowit.lmer.clockerror02)
Generalized linear mixed model fit using Laplace
Formula: combowit ~ (1 | discode) + subyrctr + predead
Data: dandat
Subset: subyear > 1962
Family: binomial(logit link)
AIC BIC logLik deviance
369 389 -180 361
Random effects:
Groups Name Variance Std.Dev.
discode (Intercept) 0.595 0.772
number of obs: 1273, groups: discode, 217

Estimated scale (compare to 1 ) 0.9
```

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z)
(Intercept)	-3.79300	0.22127	-17.14	<2e-16 ***
subyrctr	-0.00308	0.01886	-0.16	0.870
predead	1.20113	0.54550	2.20	0.028 *

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

	(Intr)	sbyrct
subyrctr	-0.186	
predead	-0.234	-0.556

>

```
> combowit.lmer.clockerror02.sim <- mcsamp(combowit.lmer.clockerror02)
```

>

```
> print(combowit.lmer.clockerror02.sim)
```

fit using lmer,

3 chains, each with 1000 iterations (first 500 discarded)

n.sims = 1500 iterations saved

	mean	sd	2.5%	25%	50%	75%	97.5%	Rhat	n.eff
beta.(Intercept)	-3.6	0.2	-4.0	-3.8	-3.6	-3.5	-3.2	1.1	23
beta.su	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	720
beta.predead	1.2	0.5	0.2	0.8	1.2	1.5	2.1	1.0	1500
sigma.dscd.(In)	0.4	0.3	0.1	0.2	0.4	0.7	1.0	3.4	4
eta.discod. (Intercept) [1]	0.2	0.5	-0.8	-0.1	0.1	0.3	1.6	1.1	60
eta.discod. (Intercept) [2]	0.2	0.6	-1.0	-0.1	0.1	0.5	1.6	1.1	33
eta.discod. (Intercept) [3]	-0.1	0.5	-1.2	-0.3	0.0	0.2	0.9	1.1	1300
eta.discod. (Intercept) [4]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.1	1.1	310
eta.discod. (Intercept) [5]	0.3	0.5	-0.7	-0.1	0.1	0.5	1.6	1.2	24
eta.discod. (Intercept) [6]	0.3	0.5	-0.3	0.0	0.2	0.5	1.4	1.2	13
eta.discod. (Intercept) [7]	-0.1	0.5	-1.3	-0.3	0.0	0.1	1.0	1.1	86
eta.discod. (Intercept) [8]	0.1	0.5	-0.8	-0.1	0.0	0.3	1.2	1.1	89
eta.discod. (Intercept) [9]	0.0	0.4	-1.1	-0.2	0.0	0.2	1.0	1.1	310
eta.discod. (Intercept) [10]	0.2	0.5	-0.7	-0.1	0.1	0.4	1.4	1.1	32
eta.discod. (Intercept) [11]	0.2	0.5	-0.7	-0.1	0.1	0.4	1.4	1.1	36
eta.discod. (Intercept) [12]	-0.1	0.4	-1.2	-0.3	-0.1	0.1	0.7	1.1	96
eta.discod. (Intercept) [13]	0.0	0.5	-1.2	-0.2	0.0	0.2	0.9	1.1	86
eta.discod. (Intercept) [14]	0.0	0.4	-0.8	-0.2	0.0	0.2	1.0	1.1	540
eta.discod. (Intercept) [15]	0.0	0.5	-0.9	-0.2	0.0	0.2	1.3	1.1	490
eta.discod. (Intercept) [16]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.0	1.1	280
eta.discod. (Intercept) [17]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.0	1.1	990
eta.discod. (Intercept) [18]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.1	1.1	1500
eta.discod. (Intercept) [19]	-0.1	0.5	-1.2	-0.3	0.0	0.2	0.8	1.1	35
eta.discod. (Intercept) [20]	0.0	0.5	-1.2	-0.3	0.0	0.2	1.1	1.1	93
eta.discod. (Intercept) [21]	0.0	0.5	-1.4	-0.2	0.0	0.2	0.9	1.1	92
eta.discod. (Intercept) [22]	-0.2	0.5	-1.4	-0.3	-0.1	0.1	0.7	1.1	58
eta.discod. (Intercept) [23]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.0	1.1	1500
eta.discod. (Intercept) [24]	0.0	0.6	-1.2	-0.2	0.0	0.2	1.4	1.1	640
eta.discod. (Intercept) [25]	-0.1	0.5	-1.0	-0.3	0.0	0.2	1.0	1.1	200
eta.discod. (Intercept) [26]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.1	1.1	150
eta.discod. (Intercept) [27]	0.0	0.6	-1.5	-0.2	0.0	0.2	1.3	1.1	220
eta.discod. (Intercept) [28]	-0.1	0.4	-1.1	-0.3	0.0	0.1	0.7	1.1	100
eta.discod. (Intercept) [29]	-0.1	0.5	-1.2	-0.3	0.0	0.1	0.8	1.1	200
eta.discod. (Intercept) [30]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.0	1.1	61
eta.discod. (Intercept) [31]	-0.1	0.5	-1.4	-0.3	0.0	0.2	1.1	1.1	180
eta.discod. (Intercept) [32]	0.0	0.4	-1.2	-0.2	0.0	0.2	0.9	1.1	230
eta.discod. (Intercept) [33]	0.0	0.5	-1.5	-0.2	0.0	0.2	1.0	1.1	360
eta.discod. (Intercept) [34]	-0.1	0.4	-1.2	-0.3	0.0	0.2	0.8	1.1	95
eta.discod. (Intercept) [35]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.0	1.1	340
eta.discod. (Intercept) [36]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.2	1.1	110
eta.discod. (Intercept) [37]	0.0	0.5	-1.1	-0.2	0.0	0.2	0.9	1.1	420
eta.discod. (Intercept) [38]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	220

eta.discode. (Intercept) [39]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.0	1.1	610
eta.discode. (Intercept) [40]	0.0	0.5	-1.3	-0.2	0.0	0.2	1.0	1.1	1100
eta.discode. (Intercept) [41]	0.0	0.5	-0.9	-0.2	0.0	0.2	1.2	1.1	970
eta.discode. (Intercept) [42]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.0	1.1	370
eta.discode. (Intercept) [43]	-0.1	0.5	-1.4	-0.3	-0.1	0.1	0.8	1.1	51
eta.discode. (Intercept) [44]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.1	1.1	1500
eta.discode. (Intercept) [45]	0.2	0.5	-0.6	-0.1	0.1	0.4	1.6	1.2	25
eta.discode. (Intercept) [46]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.1	1.1	1500
eta.discode. (Intercept) [47]	0.1	0.4	-0.7	-0.1	0.1	0.4	1.2	1.1	41
eta.discode. (Intercept) [48]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.3	1.1	160
eta.discode. (Intercept) [49]	-0.1	0.5	-1.3	-0.3	-0.1	0.1	1.2	1.1	200
eta.discode. (Intercept) [50]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.5	1.1	57
eta.discode. (Intercept) [51]	0.2	0.5	-0.7	-0.1	0.1	0.4	1.4	1.2	30
eta.discode. (Intercept) [52]	-0.1	0.5	-1.2	-0.3	0.0	0.1	0.8	1.1	51
eta.discode. (Intercept) [53]	0.0	0.5	-1.3	-0.2	0.0	0.2	0.9	1.1	360
eta.discode. (Intercept) [54]	0.0	0.4	-0.9	-0.2	0.0	0.2	0.9	1.1	1500
eta.discode. (Intercept) [55]	0.2	0.6	-0.9	-0.1	0.1	0.4	1.7	1.1	47
eta.discode. (Intercept) [56]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.0	1.1	1200
eta.discode. (Intercept) [57]	0.0	0.5	-1.1	-0.2	0.0	0.2	0.9	1.1	680
eta.discode. (Intercept) [58]	0.2	0.5	-0.5	-0.1	0.1	0.5	1.4	1.2	20
eta.discode. (Intercept) [59]	0.0	0.5	-1.1	-0.2	0.0	0.2	0.9	1.1	96
eta.discode. (Intercept) [60]	-0.1	0.4	-0.9	-0.3	-0.1	0.1	0.8	1.1	200
eta.discode. (Intercept) [61]	0.0	0.5	-0.9	-0.2	0.0	0.2	1.0	1.1	340
eta.discode. (Intercept) [62]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.4	1.1	370
eta.discode. (Intercept) [63]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.3	1.1	1500
eta.discode. (Intercept) [64]	0.0	0.6	-1.3	-0.2	0.0	0.3	1.5	1.1	180
eta.discode. (Intercept) [65]	0.0	0.5	-0.9	-0.2	0.0	0.2	1.0	1.1	1200
eta.discode. (Intercept) [66]	-0.1	0.5	-1.3	-0.3	0.0	0.2	1.0	1.1	140
eta.discode. (Intercept) [67]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.0	1.1	360
eta.discode. (Intercept) [68]	-0.2	0.5	-1.4	-0.3	-0.1	0.1	0.5	1.1	31
eta.discode. (Intercept) [69]	0.2	0.5	-0.8	0.0	0.1	0.4	1.4	1.1	35
eta.discode. (Intercept) [70]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.2	1.1	780
eta.discode. (Intercept) [71]	0.0	0.4	-0.8	-0.2	0.0	0.2	0.8	1.1	250
eta.discode. (Intercept) [72]	0.0	0.6	-1.3	-0.2	0.0	0.2	1.4	1.1	1500
eta.discode. (Intercept) [73]	0.0	0.5	-1.3	-0.2	0.0	0.2	1.0	1.1	230
eta.discode. (Intercept) [74]	0.2	0.5	-0.8	-0.1	0.1	0.4	1.8	1.1	31
eta.discode. (Intercept) [75]	0.2	0.5	-0.7	-0.1	0.1	0.5	1.5	1.1	38
eta.discode. (Intercept) [76]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.3	1.1	1100
eta.discode. (Intercept) [77]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	1500
eta.discode. (Intercept) [78]	0.0	0.5	-1.2	-0.3	0.0	0.2	1.1	1.1	270
eta.discode. (Intercept) [79]	0.0	0.4	-1.0	-0.2	0.0	0.2	0.8	1.1	270
eta.discode. (Intercept) [80]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	95
eta.discode. (Intercept) [81]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	530
eta.discode. (Intercept) [82]	0.0	0.5	-1.0	-0.2	0.0	0.2	0.9	1.1	1500
eta.discode. (Intercept) [83]	-0.1	0.5	-1.1	-0.3	0.0	0.2	1.1	1.1	340
eta.discode. (Intercept) [84]	-0.1	0.5	-1.2	-0.3	0.0	0.2	1.1	1.1	37
eta.discode. (Intercept) [85]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.1	1.1	630
eta.discode. (Intercept) [86]	0.0	0.5	-1.0	-0.2	0.0	0.2	0.9	1.1	560
eta.discode. (Intercept) [87]	0.0	0.5	-1.3	-0.2	0.0	0.2	1.0	1.1	170
eta.discode. (Intercept) [88]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.2	1.1	130
eta.discode. (Intercept) [89]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.0	1.1	370
eta.discode. (Intercept) [90]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	1500
eta.discode. (Intercept) [91]	0.0	0.5	-1.3	-0.2	0.0	0.2	1.2	1.1	1000
eta.discode. (Intercept) [92]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.0	1.1	1500
eta.discode. (Intercept) [93]	0.0	0.5	-1.1	-0.2	0.0	0.2	0.9	1.1	490
eta.discode. (Intercept) [94]	0.1	0.5	-0.8	-0.2	0.0	0.2	1.3	1.1	720
eta.discode. (Intercept) [95]	0.0	0.5	-1.2	-0.2	0.0	0.3	1.1	1.1	1000
eta.discode. (Intercept) [96]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	1500
eta.discode. (Intercept) [97]	0.0	0.4	-1.0	-0.2	0.0	0.2	0.8	1.1	770
eta.discode. (Intercept) [98]	0.0	0.5	-0.9	-0.3	0.0	0.2	1.1	1.1	1500
eta.discode. (Intercept) [99]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	1100
eta.discode. (Intercept) [100]	-0.1	0.5	-1.1	-0.2	0.0	0.2	0.9	1.1	220
eta.discode. (Intercept) [101]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	1500

eta.discode. (Intercept) [102]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.0	1.1	280
eta.discode. (Intercept) [103]	0.0	0.5	-1.1	-0.3	0.0	0.2	1.0	1.1	290
eta.discode. (Intercept) [104]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.2	1.1	160
eta.discode. (Intercept) [105]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.1	1.1	880
eta.discode. (Intercept) [106]	0.0	0.6	-1.3	-0.3	0.0	0.2	1.1	1.1	260
eta.discode. (Intercept) [107]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	800
eta.discode. (Intercept) [108]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.1	1.1	980
eta.discode. (Intercept) [109]	0.0	0.5	-1.2	-0.2	0.0	0.2	0.9	1.1	470
eta.discode. (Intercept) [110]	0.0	0.5	-0.9	-0.2	0.0	0.2	1.1	1.1	570
eta.discode. (Intercept) [111]	-0.1	0.5	-1.1	-0.2	0.0	0.2	1.0	1.1	310
eta.discode. (Intercept) [112]	-0.1	0.4	-1.0	-0.3	0.0	0.2	0.9	1.1	180
eta.discode. (Intercept) [113]	-0.1	0.5	-1.0	-0.3	0.0	0.2	0.9	1.1	160
eta.discode. (Intercept) [114]	0.2	0.5	-0.6	0.0	0.1	0.4	1.4	1.2	22
eta.discode. (Intercept) [115]	0.0	0.5	-1.4	-0.2	0.0	0.3	0.8	1.1	100
eta.discode. (Intercept) [116]	-0.1	0.5	-1.3	-0.2	-0.1	0.2	1.0	1.1	420
eta.discode. (Intercept) [117]	-0.1	0.5	-1.3	-0.3	-0.1	0.1	0.9	1.1	68
eta.discode. (Intercept) [118]	0.0	0.5	-1.2	-0.2	0.0	0.2	0.9	1.1	390
eta.discode. (Intercept) [119]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.2	1.1	310
eta.discode. (Intercept) [120]	0.0	0.5	-1.3	-0.2	0.0	0.2	0.9	1.1	1000
eta.discode. (Intercept) [121]	-0.1	0.5	-1.3	-0.3	0.0	0.1	0.9	1.1	190
eta.discode. (Intercept) [122]	0.0	0.4	-1.1	-0.2	0.0	0.2	0.7	1.1	200
eta.discode. (Intercept) [123]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	180
eta.discode. (Intercept) [124]	0.0	0.5	-1.1	-0.3	0.0	0.2	1.0	1.1	42
eta.discode. (Intercept) [125]	-0.1	0.5	-1.2	-0.2	0.0	0.1	1.1	1.1	380
eta.discode. (Intercept) [126]	0.0	0.6	-1.2	-0.3	0.0	0.2	1.0	1.1	990
eta.discode. (Intercept) [127]	0.0	0.6	-1.3	-0.2	0.0	0.2	1.2	1.1	190
eta.discode. (Intercept) [128]	-0.1	0.5	-1.3	-0.3	0.0	0.1	0.8	1.1	290
eta.discode. (Intercept) [129]	-0.1	0.5	-1.1	-0.3	-0.1	0.1	0.9	1.1	210
eta.discode. (Intercept) [130]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.3	1.1	1500
eta.discode. (Intercept) [131]	0.1	0.5	-0.8	-0.1	0.1	0.3	1.1	1.1	64
eta.discode. (Intercept) [132]	-0.1	0.5	-1.4	-0.2	0.0	0.2	0.8	1.1	320
eta.discode. (Intercept) [133]	0.0	0.5	-1.0	-0.2	0.0	0.2	0.9	1.1	150
eta.discode. (Intercept) [134]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.3	1.1	260
eta.discode. (Intercept) [135]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.0	1.2	38
eta.discode. (Intercept) [136]	0.0	0.5	-1.0	-0.2	0.0	0.2	0.9	1.1	80
eta.discode. (Intercept) [137]	-0.1	0.5	-1.4	-0.3	0.0	0.2	0.9	1.1	39
eta.discode. (Intercept) [138]	0.0	0.6	-1.3	-0.2	0.0	0.2	1.1	1.1	480
eta.discode. (Intercept) [139]	-0.1	0.5	-1.3	-0.3	0.0	0.1	0.8	1.1	72
eta.discode. (Intercept) [140]	0.2	0.5	-0.7	-0.1	0.1	0.5	1.6	1.2	23
eta.discode. (Intercept) [141]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.3	1.1	610
eta.discode. (Intercept) [142]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.0	1.1	770
eta.discode. (Intercept) [143]	-0.1	0.5	-1.1	-0.3	0.0	0.2	0.9	1.1	230
eta.discode. (Intercept) [144]	-0.1	0.5	-1.6	-0.3	0.0	0.2	1.1	1.1	350
eta.discode. (Intercept) [145]	0.0	0.5	-1.1	-0.3	0.0	0.2	1.1	1.1	660
eta.discode. (Intercept) [146]	-0.1	0.5	-1.2	-0.2	0.0	0.1	0.9	1.1	71
eta.discode. (Intercept) [147]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.2	1.1	410
eta.discode. (Intercept) [148]	0.0	0.5	-1.3	-0.2	0.0	0.2	1.2	1.1	630
eta.discode. (Intercept) [149]	0.7	0.7	-0.2	0.1	0.5	1.2	2.5	1.6	7
eta.discode. (Intercept) [150]	-0.1	0.5	-1.5	-0.3	0.0	0.1	0.9	1.1	130
eta.discode. (Intercept) [151]	0.2	0.5	-0.7	-0.1	0.1	0.4	1.5	1.1	32
eta.discode. (Intercept) [152]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.0	1.1	670
eta.discode. (Intercept) [153]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.1	1.1	160
eta.discode. (Intercept) [154]	0.1	0.5	-0.9	-0.2	0.0	0.2	1.1	1.1	160
eta.discode. (Intercept) [155]	-0.1	0.5	-1.5	-0.3	0.0	0.2	1.1	1.1	150
eta.discode. (Intercept) [156]	0.0	0.5	-1.2	-0.2	0.0	0.2	0.9	1.1	230
eta.discode. (Intercept) [157]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.0	1.1	1500
eta.discode. (Intercept) [158]	-0.1	0.5	-1.3	-0.2	0.0	0.2	1.0	1.1	370
eta.discode. (Intercept) [159]	0.2	0.5	-0.6	-0.1	0.1	0.4	1.4	1.1	36
eta.discode. (Intercept) [160]	0.0	0.5	-0.9	-0.2	0.0	0.2	1.1	1.1	560
eta.discode. (Intercept) [161]	0.0	0.5	-1.3	-0.2	0.0	0.2	0.9	1.1	770
eta.discode. (Intercept) [162]	0.0	0.5	-1.4	-0.2	0.0	0.2	0.9	1.1	190
eta.discode. (Intercept) [163]	-0.1	0.5	-1.2	-0.2	0.0	0.2	0.9	1.1	350
eta.discode. (Intercept) [164]	0.1	0.5	-1.1	-0.2	0.0	0.3	1.3	1.1	170

eta.discode.(Intercept) [165]	0.0	0.5	-0.9	-0.2	0.0	0.2	1.0	1.1	1500
eta.discode.(Intercept) [166]	0.4	0.5	-0.3	0.0	0.2	0.6	1.5	1.3	12
eta.discode.(Intercept) [167]	0.0	0.5	-0.9	-0.3	0.0	0.2	1.1	1.1	1400
eta.discode.(Intercept) [168]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.0	1.1	370
eta.discode.(Intercept) [169]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	1500
eta.discode.(Intercept) [170]	0.1	0.5	-1.0	-0.1	0.1	0.4	1.4	1.1	84
eta.discode.(Intercept) [171]	-0.1	0.5	-1.5	-0.2	0.0	0.2	1.0	1.1	120
eta.discode.(Intercept) [172]	0.2	0.5	-0.7	-0.1	0.1	0.4	1.3	1.1	28
eta.discode.(Intercept) [173]	-0.1	0.5	-1.2	-0.3	0.0	0.2	1.0	1.1	160
eta.discode.(Intercept) [174]	0.0	0.5	-1.2	-0.2	0.0	0.2	0.9	1.1	100
eta.discode.(Intercept) [175]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.0	1.1	510
eta.discode.(Intercept) [176]	-0.1	0.5	-1.3	-0.3	0.0	0.2	0.8	1.1	130
eta.discode.(Intercept) [177]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.4	1.1	830
eta.discode.(Intercept) [178]	-0.2	0.4	-1.3	-0.4	-0.1	0.1	0.5	1.1	32
eta.discode.(Intercept) [179]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	530
eta.discode.(Intercept) [180]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.2	1.1	470
eta.discode.(Intercept) [181]	-0.3	0.5	-1.3	-0.5	-0.2	0.0	0.4	1.2	18
eta.discode.(Intercept) [182]	0.0	0.5	-1.1	-0.3	0.0	0.2	1.0	1.1	380
eta.discode.(Intercept) [183]	0.0	0.4	-1.0	-0.2	0.0	0.2	1.1	1.1	200
eta.discode.(Intercept) [184]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.2	1.1	120
eta.discode.(Intercept) [185]	0.0	0.5	-1.3	-0.2	0.0	0.2	1.2	1.1	610
eta.discode.(Intercept) [186]	-0.1	0.5	-1.4	-0.3	-0.1	0.1	0.9	1.1	41
eta.discode.(Intercept) [187]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.0	1.1	77
eta.discode.(Intercept) [188]	0.0	0.6	-1.3	-0.3	0.0	0.2	1.1	1.1	310
eta.discode.(Intercept) [189]	-0.1	0.5	-1.1	-0.3	0.0	0.2	0.9	1.1	57
eta.discode.(Intercept) [190]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.0	1.1	580
eta.discode.(Intercept) [191]	0.0	0.5	-1.0	-0.2	0.0	0.2	0.9	1.1	950
eta.discode.(Intercept) [192]	0.0	0.6	-1.4	-0.2	0.0	0.2	1.1	1.1	1500
eta.discode.(Intercept) [193]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.1	1.1	1500
eta.discode.(Intercept) [194]	0.0	0.5	-1.2	-0.2	0.0	0.1	0.9	1.1	79
eta.discode.(Intercept) [195]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.0	1.1	370
eta.discode.(Intercept) [196]	0.3	0.5	-0.4	0.0	0.1	0.5	1.4	1.2	14
eta.discode.(Intercept) [197]	0.0	0.5	-0.9	-0.3	0.0	0.2	1.0	1.1	690
eta.discode.(Intercept) [198]	0.0	0.5	-1.1	-0.2	0.0	0.2	0.9	1.1	590
eta.discode.(Intercept) [199]	0.0	0.5	-0.9	-0.2	0.0	0.2	1.5	1.1	660
eta.discode.(Intercept) [200]	-0.1	0.5	-1.1	-0.2	0.0	0.2	0.8	1.1	190
eta.discode.(Intercept) [201]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	770
eta.discode.(Intercept) [202]	0.0	0.4	-0.9	-0.2	0.0	0.2	0.9	1.1	240
eta.discode.(Intercept) [203]	0.0	0.5	-1.0	-0.2	0.0	0.2	0.9	1.1	560
eta.discode.(Intercept) [204]	-0.1	0.5	-1.1	-0.3	0.0	0.2	1.0	1.1	260
eta.discode.(Intercept) [205]	-0.1	0.5	-1.2	-0.3	0.0	0.1	1.1	1.1	470
eta.discode.(Intercept) [206]	0.0	0.5	-1.2	-0.2	0.0	0.3	1.1	1.1	560
eta.discode.(Intercept) [207]	0.0	0.5	-1.4	-0.2	0.0	0.2	1.0	1.1	700
eta.discode.(Intercept) [208]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.1	1.1	150
eta.discode.(Intercept) [209]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.3	1.1	350
eta.discode.(Intercept) [210]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.0	1.1	1500
eta.discode.(Intercept) [211]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.0	1.1	160
eta.discode.(Intercept) [212]	0.0	0.5	-1.2	-0.2	0.0	0.2	1.1	1.1	930
eta.discode.(Intercept) [213]	0.0	0.5	-1.0	-0.2	0.0	0.2	1.0	1.1	1500
eta.discode.(Intercept) [214]	0.0	0.5	-1.1	-0.2	0.0	0.2	1.0	1.1	320
eta.discode.(Intercept) [215]	0.0	0.6	-1.2	-0.2	0.0	0.2	1.3	1.1	1500
eta.discode.(Intercept) [216]	0.0	0.5	-1.3	-0.2	0.0	0.2	1.0	1.1	850
eta.discode.(Intercept) [217]	-0.1	0.5	-1.1	-0.3	0.0	0.2	1.0	1.1	210

For each parameter, n.eff is a crude measure of effective sample size,
and Rhat is the potential scale reduction factor (at convergence, Rhat=1).

```
>
> combobbbw.lmer.clockerror01 <- lmer(combobbbw ~ (1 | discode) + subyrctr +
predead, family = binomial, data = danddat, subset = subyear > 1974, method =
"Laplace", control = list(msVerbose = TRUE), na.action = na.exclude, model =
TRUE)
```

relative tolerance set to 12056.5321579461

```

Warning messages:
1: algorithm did not converge in: glm.fit(X, Y, weights = weights, offset =
offset, family = family,
2: fitted probabilities numerically 0 or 1 occurred in: glm.fit(X, Y, weights =
weights, offset = offset, family = family,
>
> summary(combobbw.lmer.clockerror03)
Error: object "combobbw.lmer.clockerror03" not found
Error in summary(combobbw.lmer.clockerror03) :
  error in evaluating the argument 'object' in selecting a method for
function 'summary'
>
> combobbw.lmer.clockerror03.sim <- mcsamp(combobbw.lmer.clockerror03)
Error in mcsamp(combobbw.lmer.clockerror03) :
  object "combobbw.lmer.clockerror03" not found
>
> print(combobbw.lmer.clockerror03.sim)
Error: object "combobbw.lmer.clockerror03.sim" not found
Error in print(combobbw.lmer.clockerror03.sim) :
  error in evaluating the argument 'x' in selecting a method for function
>
> witorbbw.lmer.clockerror01 <- lmer(witorbbw ~ (1 | discode) + subyrctr +
predead, family = binomial, data = dandat, subset = subyear > 1974, method =
"Laplace", control = list(msVerbose = TRUE), na.action = na.exclude, model =
TRUE)
relative tolerance set to 2.04623226875541e-05
  0:   488.70307: -2.73987 0.000125828  1.02673 0.555113
  1:   487.59287: -2.74161 -0.0157980  1.02644 0.555234
  2:   485.47191: -2.97335 -0.00292698  1.04835 0.660494
  3:   485.29393: -3.06146 -0.0157867  1.07235 0.899091
  4:   484.45552: -3.05841 -0.00304216  1.10039 1.15301
  5:   484.06752: -3.16944 -0.00792969  1.32962 1.17618
  6:   483.79314: -3.25487 -0.00365657  1.15540 1.22262
  7:   483.75577: -3.25577 -0.00355864  1.13947 1.30487
  8:   483.75166: -3.26132 -0.000988443 1.13035 1.29291
  9:   483.74567: -3.26921 -0.00178421  1.13493 1.30237
>
> summary(witorbbw.lmer.clockerror01)
Generalized linear mixed model fit using Laplace
Formula: witorbbw ~ (1 | discode) + subyrctr + predead
Data: dandat
Subset: subyear > 1974
Family: binomial(logit link)
AIC BIC logLik deviance
492 511   -242     484
Random effects:
Groups Name          Variance Std.Dev.
discode (Intercept) 1.30      1.14
number of obs: 1004, groups: discode, 209

Estimated scale (compare to 1 ) 0.86

Fixed effects:
              Estimate Std. Error z value Pr(>|z|)
(Intercept) -3.26921    0.25985  -12.58  <2e-16 ***
subyrctr    -0.00178    0.02201   -0.08   0.935
predead     1.13493    0.45090    2.52   0.012 *
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:
              (Intr) sbyrctr
subyrctr    -0.579

```

```
predead 0.040 -0.545
```

```
>
```

```
> witorbbw.lmer.clockerror01.sim <- mcsamp(witorbbw.lmer.clockerror01)
```

```
>
```

```
> print(witorbbw.lmer.clockerror01.sim)
```

```
fit using lmer,
```

```
3 chains, each with 1000 iterations (first 500 discarded)
```

```
n.sims = 1500 iterations saved
```

	mean	sd	2.5%	25%	50%	75%	97.5%	Rhat	n.eff
beta.(Intercept)	-3.0	0.2	-3.4	-3.2	-3.0	-2.9	-2.6	1.3	11
beta.su	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.1	21
beta.predead	1.1	0.4	0.2	0.8	1.1	1.3	1.8	1.1	200
sigma.dscd.(In)	0.9	0.2	0.6	0.8	0.9	1.1	1.3	2.1	5
eta.discodc.(Intercept) [1]	0.7	0.8	-0.9	0.2	0.6	1.3	2.3	1.1	28
eta.discodc.(Intercept) [2]	0.7	0.9	-1.1	0.0	0.6	1.4	2.5	1.1	30
eta.discodc.(Intercept) [3]	-0.3	0.8	-1.9	-0.8	-0.1	0.3	1.7	1.0	610
eta.discodc.(Intercept) [4]	-0.2	1.0	-2.1	-0.8	-0.2	0.5	1.9	1.0	52
eta.discodc.(Intercept) [5]	0.9	0.9	-0.8	0.2	1.0	1.5	2.7	1.1	38
eta.discodc.(Intercept) [6]	0.4	0.5	-0.6	0.0	0.4	0.8	1.5	1.0	280
eta.discodc.(Intercept) [7]	-0.4	0.8	-1.9	-1.0	-0.3	0.2	0.9	1.1	31
eta.discodc.(Intercept) [8]	0.1	0.8	-1.7	-0.4	0.1	0.8	1.6	1.0	200
eta.discodc.(Intercept) [9]	-0.1	0.9	-1.9	-0.7	-0.2	0.3	2.3	1.1	1500
eta.discodc.(Intercept) [10]	0.2	0.8	-1.5	-0.3	0.2	0.8	1.7	1.1	120
eta.discodc.(Intercept) [11]	0.4	0.7	-1.1	0.0	0.4	0.9	1.7	1.0	190
eta.discodc.(Intercept) [12]	-0.7	0.8	-2.4	-1.2	-0.8	-0.1	1.0	1.1	40
eta.discodc.(Intercept) [13]	-0.1	0.9	-1.7	-0.7	-0.1	0.5	1.7	1.1	1100
eta.discodc.(Intercept) [14]	-0.2	0.7	-1.8	-0.6	-0.2	0.2	1.0	1.2	18
eta.discodc.(Intercept) [15]	-0.2	0.9	-1.8	-1.0	-0.2	0.4	2.0	1.1	45
eta.discodc.(Intercept) [16]	0.0	0.9	-1.5	-0.7	0.0	0.5	1.8	1.1	35
eta.discodc.(Intercept) [17]	0.0	0.9	-1.7	-0.5	-0.1	0.5	1.7	1.1	87
eta.discodc.(Intercept) [18]	-0.4	0.7	-2.3	-0.9	-0.4	0.1	0.7	1.0	72
eta.discodc.(Intercept) [19]	-0.1	0.7	-1.7	-0.6	0.0	0.5	1.1	1.0	1500
eta.discodc.(Intercept) [20]	-0.2	0.8	-1.8	-0.7	-0.1	0.5	1.0	1.1	48
eta.discodc.(Intercept) [21]	-0.6	0.8	-2.6	-1.2	-0.5	0.0	0.8	1.2	18
eta.discodc.(Intercept) [22]	-0.1	1.0	-2.5	-0.7	-0.1	0.7	1.7	1.1	58
eta.discodc.(Intercept) [23]	-0.1	1.0	-2.1	-0.6	0.0	0.5	1.8	1.1	86
eta.discodc.(Intercept) [24]	-0.4	0.7	-2.1	-0.7	-0.3	0.1	1.2	1.1	75
eta.discodc.(Intercept) [25]	0.4	0.7	-0.8	-0.1	0.3	0.8	2.4	1.0	1100
eta.discodc.(Intercept) [26]	0.1	0.9	-2.0	-0.3	0.2	0.7	1.6	1.1	63
eta.discodc.(Intercept) [27]	-0.4	0.8	-1.9	-0.9	-0.3	0.2	0.9	1.1	36
eta.discodc.(Intercept) [28]	-0.2	0.9	-1.8	-0.8	-0.1	0.5	1.4	1.0	480
eta.discodc.(Intercept) [29]	-0.3	0.9	-2.5	-0.8	-0.2	0.3	1.2	1.0	290
eta.discodc.(Intercept) [30]	-0.2	0.7	-1.9	-0.7	-0.3	0.3	1.0	1.0	210
eta.discodc.(Intercept) [31]	0.0	1.1	-2.0	-0.7	-0.1	0.6	2.1	1.1	50
eta.discodc.(Intercept) [32]	-0.3	0.8	-2.2	-0.8	-0.2	0.3	1.4	1.0	250
eta.discodc.(Intercept) [33]	-0.1	0.9	-2.3	-0.5	0.0	0.5	1.7	1.0	280
eta.discodc.(Intercept) [34]	-0.1	0.9	-1.6	-0.8	-0.1	0.6	1.7	1.1	35
eta.discodc.(Intercept) [35]	-0.3	0.9	-2.6	-0.7	-0.3	0.3	1.4	1.1	490
eta.discodc.(Intercept) [36]	-0.2	0.8	-1.9	-0.6	-0.3	0.3	1.7	1.0	74
eta.discodc.(Intercept) [37]	-0.1	0.8	-1.6	-0.6	-0.1	0.4	1.5	1.1	45
eta.discodc.(Intercept) [38]	-0.1	0.9	-1.9	-0.7	-0.1	0.6	1.7	1.0	350
eta.discodc.(Intercept) [39]	-0.1	1.0	-2.0	-0.8	-0.1	0.5	1.6	1.1	45
eta.discodc.(Intercept) [40]	-0.1	0.9	-2.3	-0.6	0.0	0.5	1.4	1.1	36
eta.discodc.(Intercept) [41]	-0.4	0.7	-2.1	-0.9	-0.5	0.1	0.8	1.1	32
eta.discodc.(Intercept) [42]	0.0	1.0	-1.9	-0.8	0.0	0.6	2.1	1.0	640
eta.discodc.(Intercept) [43]	0.6	0.9	-0.9	0.1	0.5	1.2	3.2	1.1	44
eta.discodc.(Intercept) [44]	-0.1	0.8	-1.9	-0.5	0.0	0.5	1.9	1.1	38
eta.discodc.(Intercept) [45]	0.0	0.8	-1.4	-0.6	0.0	0.7	1.4	1.1	56
eta.discodc.(Intercept) [46]	0.1	0.9	-2.1	-0.4	0.2	0.5	1.7	1.1	34
eta.discodc.(Intercept) [47]	-0.2	0.9	-2.3	-0.9	-0.1	0.4	1.3	1.0	130
eta.discodc.(Intercept) [48]	-0.2	1.0	-2.3	-0.7	-0.3	0.5	1.6	1.1	50
eta.discodc.(Intercept) [49]	1.6	0.8	-0.3	1.2	1.6	2.1	3.2	1.1	31
eta.discodc.(Intercept) [50]	1.5	0.5	0.5	1.1	1.7	1.8	2.3	1.1	22

eta.discodes.(Intercept) [51]	-0.1	0.9	-2.5	-0.5	0.0	0.6	1.4	1.0	130
eta.discodes.(Intercept) [52]	-0.2	1.0	-2.1	-0.8	-0.1	0.5	1.8	1.2	22
eta.discodes.(Intercept) [53]	1.4	0.7	0.1	1.0	1.5	1.8	3.0	1.1	21
eta.discodes.(Intercept) [54]	0.0	0.9	-1.6	-0.6	0.1	0.6	1.8	1.1	43
eta.discodes.(Intercept) [55]	-0.2	1.0	-2.6	-0.8	-0.2	0.5	1.7	1.0	59
eta.discodes.(Intercept) [56]	0.5	0.6	-0.6	0.0	0.4	1.0	1.6	1.1	47
eta.discodes.(Intercept) [57]	-0.1	0.8	-1.8	-0.7	-0.1	0.4	2.1	1.1	26
eta.discodes.(Intercept) [58]	0.3	0.4	-0.4	0.0	0.3	0.5	1.0	1.0	94
eta.discodes.(Intercept) [59]	-0.1	1.0	-2.1	-0.7	0.0	0.6	2.0	1.0	180
eta.discodes.(Intercept) [60]	0.0	0.9	-2.2	-0.5	0.0	0.5	1.2	1.0	1100
eta.discodes.(Intercept) [61]	-0.1	0.7	-1.7	-0.6	-0.1	0.4	1.2	1.0	510
eta.discodes.(Intercept) [62]	0.0	0.9	-1.4	-0.6	-0.1	0.6	1.9	1.0	61
eta.discodes.(Intercept) [63]	-0.2	0.9	-1.7	-0.8	-0.1	0.4	1.5	1.0	180
eta.discodes.(Intercept) [64]	2.1	0.8	0.6	1.6	2.2	2.7	3.5	1.4	10
eta.discodes.(Intercept) [65]	0.0	1.0	-1.6	-0.8	0.0	0.6	1.7	1.1	83
eta.discodes.(Intercept) [66]	0.9	0.6	-0.1	0.5	0.8	1.2	2.4	1.0	200
eta.discodes.(Intercept) [67]	0.4	0.8	-1.1	-0.1	0.4	0.8	1.9	1.0	1500
eta.discodes.(Intercept) [68]	0.9	0.9	-0.8	0.4	0.9	1.5	2.5	1.1	25
eta.discodes.(Intercept) [69]	-0.3	0.5	-1.3	-0.6	-0.3	-0.1	0.6	1.0	360
eta.discodes.(Intercept) [70]	0.0	0.9	-1.6	-0.6	0.1	0.7	1.5	1.0	100
eta.discodes.(Intercept) [71]	0.0	0.9	-1.4	-0.6	-0.1	0.6	1.9	1.0	99
eta.discodes.(Intercept) [72]	0.8	1.0	-1.1	0.1	0.9	1.5	2.3	1.1	41
eta.discodes.(Intercept) [73]	0.8	0.9	-0.7	0.1	0.7	1.3	2.4	1.2	18
eta.discodes.(Intercept) [74]	-0.2	0.9	-1.8	-0.9	-0.2	0.6	1.2	1.0	100
eta.discodes.(Intercept) [75]	0.1	0.9	-1.8	-0.5	0.1	0.7	1.7	1.1	49
eta.discodes.(Intercept) [76]	-0.1	0.9	-1.9	-0.6	-0.1	0.6	1.4	1.1	27
eta.discodes.(Intercept) [77]	-0.3	0.9	-2.1	-1.0	-0.1	0.3	1.6	1.1	140
eta.discodes.(Intercept) [78]	0.0	1.0	-1.9	-0.8	-0.1	0.8	2.0	1.0	540
eta.discodes.(Intercept) [79]	0.0	0.9	-2.1	-0.6	0.0	0.6	1.8	1.1	57
eta.discodes.(Intercept) [80]	-0.3	0.9	-2.1	-1.0	-0.3	0.3	1.3	1.1	46
eta.discodes.(Intercept) [81]	-0.2	0.8	-1.9	-0.7	-0.2	0.4	1.1	1.0	170
eta.discodes.(Intercept) [82]	0.0	1.0	-1.9	-0.6	0.0	0.6	2.2	1.0	200
eta.discodes.(Intercept) [83]	0.4	0.7	-1.2	-0.2	0.4	0.9	1.6	1.1	42
eta.discodes.(Intercept) [84]	-0.1	0.7	-1.6	-0.6	-0.1	0.3	1.3	1.0	230
eta.discodes.(Intercept) [85]	-0.1	0.8	-1.9	-0.7	-0.2	0.4	1.5	1.0	1500
eta.discodes.(Intercept) [86]	0.0	0.8	-1.5	-0.5	0.0	0.5	1.6	1.0	350
eta.discodes.(Intercept) [87]	0.1	1.0	-1.6	-0.7	-0.1	0.7	1.9	1.1	89
eta.discodes.(Intercept) [88]	0.5	1.0	-1.1	-0.2	0.5	1.2	2.3	1.1	200
eta.discodes.(Intercept) [89]	-0.2	1.1	-2.8	-0.9	-0.1	0.6	1.9	1.2	21
eta.discodes.(Intercept) [90]	0.0	1.0	-1.7	-0.5	0.1	0.7	2.2	1.1	42
eta.discodes.(Intercept) [91]	-0.2	0.8	-1.9	-0.7	-0.1	0.4	1.4	1.0	83
eta.discodes.(Intercept) [92]	-0.1	0.8	-1.8	-0.6	-0.1	0.4	1.8	1.0	1300
eta.discodes.(Intercept) [93]	-0.2	1.0	-1.8	-1.1	-0.2	0.4	1.8	1.1	42
eta.discodes.(Intercept) [94]	-0.1	0.8	-1.7	-0.7	-0.1	0.4	1.3	1.0	270
eta.discodes.(Intercept) [95]	-0.1	0.8	-1.8	-0.5	-0.1	0.5	1.4	1.0	1500
eta.discodes.(Intercept) [96]	-0.2	0.9	-2.6	-0.9	-0.2	0.5	1.3	1.0	160
eta.discodes.(Intercept) [97]	0.0	1.0	-2.4	-0.5	0.0	0.6	1.5	1.0	68
eta.discodes.(Intercept) [98]	0.0	0.9	-1.4	-0.6	-0.1	0.5	2.1	1.1	76
eta.discodes.(Intercept) [99]	-0.3	0.7	-1.7	-0.6	-0.3	0.1	0.9	1.1	52
eta.discodes.(Intercept) [100]	0.0	1.0	-1.9	-0.6	0.0	0.8	1.7	1.1	20
eta.discodes.(Intercept) [101]	-0.2	0.9	-1.8	-0.8	-0.4	0.3	1.7	1.1	260
eta.discodes.(Intercept) [102]	-0.3	0.8	-2.2	-0.8	-0.2	0.1	1.1	1.1	54
eta.discodes.(Intercept) [103]	0.2	0.8	-1.3	-0.2	0.1	0.6	2.0	1.0	260
eta.discodes.(Intercept) [104]	-0.4	1.0	-2.6	-1.0	-0.3	0.2	1.1	1.1	28
eta.discodes.(Intercept) [105]	0.1	0.9	-2.1	-0.5	0.0	0.7	1.6	1.0	75
eta.discodes.(Intercept) [106]	0.0	0.8	-1.7	-0.5	0.1	0.6	1.4	1.0	54
eta.discodes.(Intercept) [107]	-0.1	1.0	-1.7	-0.9	-0.2	0.6	1.9	1.0	94
eta.discodes.(Intercept) [108]	-0.3	0.7	-1.8	-0.8	-0.3	0.1	1.1	1.0	80
eta.discodes.(Intercept) [109]	0.2	0.8	-1.3	-0.2	0.2	0.7	1.8	1.1	64
eta.discodes.(Intercept) [110]	0.9	0.6	-0.2	0.3	0.9	1.3	2.1	1.1	39
eta.discodes.(Intercept) [111]	-0.2	0.8	-2.1	-0.7	-0.3	0.4	1.4	1.1	40
eta.discodes.(Intercept) [112]	-0.2	0.9	-1.7	-1.0	-0.3	0.3	1.8	1.1	47
eta.discodes.(Intercept) [113]	-0.1	0.8	-2.2	-0.7	-0.1	0.4	1.4	1.0	140

eta.discodes.(Intercept) [114]	-0.2	0.8	-1.8	-0.7	-0.1	0.4	1.4	1.0	640
eta.discodes.(Intercept) [115]	-0.1	0.8	-1.5	-0.6	-0.1	0.5	1.6	1.0	250
eta.discodes.(Intercept) [116]	-0.2	0.7	-1.5	-0.8	-0.2	0.3	1.1	1.1	51
eta.discodes.(Intercept) [117]	-0.2	0.9	-2.0	-0.6	-0.2	0.4	1.8	1.0	1100
eta.discodes.(Intercept) [118]	0.5	0.8	-1.0	-0.1	0.5	1.1	2.2	1.2	14
eta.discodes.(Intercept) [119]	0.7	0.9	-1.0	0.0	0.6	1.4	2.5	1.2	16
eta.discodes.(Intercept) [120]	-0.1	0.9	-1.8	-0.7	-0.1	0.5	1.8	1.0	58
eta.discodes.(Intercept) [121]	-0.3	0.7	-2.0	-0.7	-0.3	0.2	1.0	1.1	52
eta.discodes.(Intercept) [122]	-0.2	0.7	-1.6	-0.7	-0.2	0.3	1.2	1.0	72
eta.discodes.(Intercept) [123]	0.0	1.0	-1.8	-0.6	0.0	0.5	2.1	1.1	700
eta.discodes.(Intercept) [124]	0.2	0.6	-1.0	-0.2	0.2	0.7	1.4	1.0	98
eta.discodes.(Intercept) [125]	-0.1	1.0	-2.0	-0.8	-0.1	0.5	1.9	1.0	210
eta.discodes.(Intercept) [126]	0.0	1.0	-1.9	-0.6	0.1	0.4	2.4	1.0	210
eta.discodes.(Intercept) [127]	-0.2	0.9	-2.1	-0.9	-0.2	0.5	1.4	1.1	50
eta.discodes.(Intercept) [128]	-0.2	0.9	-2.0	-0.8	-0.1	0.3	1.4	1.1	77
eta.discodes.(Intercept) [129]	-0.4	0.8	-1.9	-1.0	-0.3	0.1	1.0	1.1	29
eta.discodes.(Intercept) [130]	-0.1	0.9	-1.9	-0.6	-0.2	0.5	1.7	1.0	200
eta.discodes.(Intercept) [131]	-0.1	0.8	-1.8	-0.7	-0.2	0.3	1.6	1.1	24
eta.discodes.(Intercept) [132]	-0.2	0.8	-2.1	-0.7	-0.3	0.2	1.2	1.0	290
eta.discodes.(Intercept) [133]	0.7	0.8	-0.6	0.1	0.7	1.3	2.4	1.1	30
eta.discodes.(Intercept) [134]	0.0	0.9	-1.7	-0.6	0.0	0.5	1.7	1.1	190
eta.discodes.(Intercept) [135]	-0.1	0.9	-1.9	-0.5	-0.2	0.5	1.4	1.1	74
eta.discodes.(Intercept) [136]	-0.2	0.8	-2.7	-0.7	-0.1	0.3	1.1	1.1	75
eta.discodes.(Intercept) [137]	0.0	1.0	-2.5	-0.5	0.0	0.6	1.9	1.1	50
eta.discodes.(Intercept) [138]	-0.4	0.7	-1.7	-0.8	-0.3	0.1	0.7	1.0	490
eta.discodes.(Intercept) [139]	-0.1	0.8	-1.7	-0.7	-0.2	0.4	1.4	1.0	220
eta.discodes.(Intercept) [140]	0.0	0.8	-1.3	-0.6	-0.1	0.6	1.5	1.1	31
eta.discodes.(Intercept) [141]	0.2	1.0	-1.8	-0.4	0.2	0.6	2.1	1.1	32
eta.discodes.(Intercept) [142]	-0.4	0.8	-2.1	-1.1	-0.4	0.2	0.9	1.1	52
eta.discodes.(Intercept) [143]	-0.4	0.8	-2.0	-0.9	-0.4	0.1	1.0	1.1	28
eta.discodes.(Intercept) [144]	0.3	0.7	-0.9	-0.1	0.3	0.9	1.7	1.0	170
eta.discodes.(Intercept) [145]	0.4	0.9	-1.0	-0.3	0.2	0.9	2.6	1.1	41
eta.discodes.(Intercept) [146]	-0.1	0.9	-1.9	-0.8	-0.2	0.5	1.8	1.0	100
eta.discodes.(Intercept) [147]	0.0	0.9	-1.9	-0.5	0.0	0.6	1.8	1.0	290
eta.discodes.(Intercept) [148]	-0.3	0.8	-1.7	-0.9	-0.3	0.1	1.6	1.0	1500
eta.discodes.(Intercept) [149]	-0.1	0.9	-2.2	-0.7	0.0	0.5	1.7	1.0	310
eta.discodes.(Intercept) [150]	0.1	0.9	-1.5	-0.5	0.1	0.8	1.5	1.0	52
eta.discodes.(Intercept) [151]	-0.2	0.9	-2.5	-0.8	-0.3	0.3	1.8	1.0	300
eta.discodes.(Intercept) [152]	0.1	0.8	-1.7	-0.3	0.2	0.7	1.5	1.0	100
eta.discodes.(Intercept) [153]	0.1	0.9	-2.6	-0.5	0.0	0.6	1.6	1.1	82
eta.discodes.(Intercept) [154]	0.0	0.7	-1.5	-0.4	0.0	0.5	1.2	1.0	1500
eta.discodes.(Intercept) [155]	-0.1	0.9	-1.8	-0.7	0.0	0.5	1.8	1.1	53
eta.discodes.(Intercept) [156]	-0.3	0.8	-2.3	-0.7	-0.2	0.3	1.1	1.0	100
eta.discodes.(Intercept) [157]	-0.3	1.1	-2.3	-1.0	-0.3	0.4	1.6	1.1	39
eta.discodes.(Intercept) [158]	-0.2	0.8	-1.6	-0.8	-0.4	0.4	1.8	1.0	450
eta.discodes.(Intercept) [159]	-0.1	0.6	-1.6	-0.4	0.0	0.3	0.8	1.0	380
eta.discodes.(Intercept) [160]	-0.3	1.0	-1.8	-1.0	-0.2	0.4	1.7	1.1	41
eta.discodes.(Intercept) [161]	-0.2	0.8	-1.9	-0.7	-0.1	0.4	1.1	1.0	110
eta.discodes.(Intercept) [162]	-0.1	0.9	-1.7	-0.7	-0.1	0.6	2.2	1.1	280
eta.discodes.(Intercept) [163]	0.0	0.8	-1.8	-0.6	0.1	0.5	1.9	1.1	130
eta.discodes.(Intercept) [164]	-0.2	0.8	-1.7	-0.8	-0.2	0.2	1.3	1.0	230
eta.discodes.(Intercept) [165]	0.0	0.8	-1.6	-0.6	0.1	0.5	1.8	1.0	210
eta.discodes.(Intercept) [166]	0.3	0.8	-1.6	-0.1	0.1	0.8	2.0	1.0	110
eta.discodes.(Intercept) [167]	0.0	0.9	-1.8	-0.7	0.1	0.7	1.6	1.0	1500
eta.discodes.(Intercept) [168]	-0.2	0.9	-2.1	-0.7	-0.2	0.5	1.5	1.0	96
eta.discodes.(Intercept) [169]	-0.4	0.9	-2.1	-1.0	-0.4	0.3	1.1	1.1	290
eta.discodes.(Intercept) [170]	-0.5	0.5	-1.6	-0.9	-0.4	-0.1	0.5	1.0	72
eta.discodes.(Intercept) [171]	0.0	0.9	-1.7	-0.7	0.0	0.7	1.8	1.0	110
eta.discodes.(Intercept) [172]	0.0	1.1	-2.0	-0.7	-0.1	0.7	2.6	1.1	72
eta.discodes.(Intercept) [173]	-0.8	0.9	-2.9	-1.2	-0.7	-0.1	0.5	1.1	23
eta.discodes.(Intercept) [174]	0.2	1.0	-1.8	-0.3	0.0	0.7	3.0	1.1	25
eta.discodes.(Intercept) [175]	0.1	0.9	-1.5	-0.4	0.0	0.7	2.0	1.1	27
eta.discodes.(Intercept) [176]	0.0	0.9	-1.8	-0.7	0.0	0.7	1.7	1.1	67

eta.discode.(Intercept) [177]	-0.1	0.8	-1.2	-0.7	-0.1	0.5	2.0	1.1	150
eta.discode.(Intercept) [178]	-0.4	0.8	-2.1	-0.8	-0.3	0.2	1.3	1.0	89
eta.discode.(Intercept) [179]	0.0	0.8	-1.5	-0.6	-0.1	0.5	1.4	1.0	100
eta.discode.(Intercept) [180]	0.1	0.8	-1.6	-0.6	0.1	0.6	1.5	1.1	30
eta.discode.(Intercept) [181]	0.0	0.8	-1.5	-0.4	0.0	0.4	1.9	1.0	990
eta.discode.(Intercept) [182]	-0.1	1.0	-2.5	-0.6	-0.1	0.4	2.0	1.0	1100
eta.discode.(Intercept) [183]	-0.2	0.8	-1.8	-0.7	-0.2	0.3	1.2	1.1	260
eta.discode.(Intercept) [184]	-0.1	0.9	-2.0	-0.6	-0.1	0.5	1.8	1.0	140
eta.discode.(Intercept) [185]	-0.1	1.0	-1.7	-0.8	-0.1	0.4	1.8	1.1	41
eta.discode.(Intercept) [186]	-0.1	0.9	-1.9	-0.8	0.0	0.5	1.7	1.0	250
eta.discode.(Intercept) [187]	0.0	1.0	-1.9	-0.6	0.0	0.5	3.1	1.0	880
eta.discode.(Intercept) [188]	0.6	0.6	-0.4	0.3	0.6	1.0	1.6	1.0	61
eta.discode.(Intercept) [189]	-0.1	0.9	-1.6	-0.7	-0.1	0.6	1.5	1.0	890
eta.discode.(Intercept) [190]	-0.2	0.9	-1.7	-0.9	-0.2	0.6	1.3	1.1	48
eta.discode.(Intercept) [191]	-0.3	1.1	-3.2	-0.9	-0.2	0.5	1.4	1.2	16
eta.discode.(Intercept) [192]	-0.1	0.9	-2.1	-0.6	-0.3	0.5	1.5	1.0	1500
eta.discode.(Intercept) [193]	-0.1	0.9	-1.7	-0.7	-0.1	0.6	1.2	1.1	61
eta.discode.(Intercept) [194]	-0.2	0.9	-2.1	-0.8	-0.2	0.4	1.6	1.1	120
eta.discode.(Intercept) [195]	-0.1	0.9	-2.0	-0.7	0.0	0.6	2.0	1.1	340
eta.discode.(Intercept) [196]	0.3	0.8	-1.5	-0.3	0.2	0.8	1.8	1.1	150
eta.discode.(Intercept) [197]	-0.2	0.8	-2.1	-0.6	-0.1	0.4	1.2	1.1	33
eta.discode.(Intercept) [198]	0.1	0.9	-1.8	-0.4	0.1	0.7	2.2	1.1	220
eta.discode.(Intercept) [199]	1.3	0.9	-0.6	0.7	1.4	1.8	2.8	1.3	12
eta.discode.(Intercept) [200]	-0.1	0.8	-1.7	-0.6	0.0	0.5	1.4	1.0	140
eta.discode.(Intercept) [201]	-0.1	0.9	-1.8	-0.7	-0.1	0.5	1.8	1.0	140
eta.discode.(Intercept) [202]	-0.3	0.8	-2.1	-0.8	-0.2	0.3	1.0	1.1	62
eta.discode.(Intercept) [203]	-0.1	0.9	-1.6	-0.7	-0.2	0.5	1.8	1.0	220
eta.discode.(Intercept) [204]	0.0	0.9	-2.1	-0.5	0.2	0.7	1.5	1.1	47
eta.discode.(Intercept) [205]	0.1	0.8	-1.5	-0.6	0.1	0.6	1.7	1.1	52
eta.discode.(Intercept) [206]	0.6	0.9	-1.0	-0.1	0.5	1.1	2.5	1.0	65
eta.discode.(Intercept) [207]	-0.1	0.8	-2.0	-0.5	0.0	0.5	1.4	1.1	64
eta.discode.(Intercept) [208]	0.0	0.9	-1.8	-0.5	0.1	0.6	1.9	1.0	320
eta.discode.(Intercept) [209]	0.0	1.0	-2.7	-0.7	0.1	0.7	1.8	1.1	330

For each parameter, n.eff is a crude measure of effective sample size,
and Rhat is the potential scale reduction factor (at convergence, Rhat=1).

```
>
>
> discont01.lmer.clockerror01 <- lmer(discont01 ~ (1 | discode) + subyrctr +
predead, family = binomial, data = dandat, subset = subyear > 1974, method =
"Laplace", control = list(msVerbose = TRUE), na.action = na.exclude, model =
TRUE)
```

```
relative tolerance set to 1.39638065140075e-05
 0: 716.13711: 1.68329 0.0411518 0.119239 0.555113
 1: 714.20203: 1.68737 0.0612991 0.119351 0.554783
 2: 704.95627: 2.10172 0.0363978 0.100666 0.548145
 3: 701.59933: 2.25671 0.0385483 0.0612682 0.931705
 4: 701.32801: 2.30826 0.0423825 -0.347762 0.983837
 5: 700.20616: 2.56102 0.0329110 -0.111967 1.21431
 6: 700.19042: 2.56505 0.0296544 -0.111288 1.27366
 7: 700.07026: 2.56880 0.0349245 -0.143050 1.36044
 8: 700.06382: 2.58599 0.0340960 -0.136340 1.37625
```

```
>
> summary(discont01.lmer.clockerror01)
Generalized linear mixed model fit using Laplace
Formula: discont01 ~ (1 | discode) + subyrctr + predead
Data: dandat
Subset: subyear > 1974
Family: binomial(logit link)
AIC BIC logLik deviance
708 728 -350 700
Random effects:
Groups Name Variance Std.Dev.
```

discode (Intercept) 1.38 1.17
number of obs: 1004, groups: discode, 209

Estimated scale (compare to 1) 0.9

Fixed effects:

	Estimate	Std. Error	z value	Pr(> z)	
(Intercept)	2.5860	0.2114	12.23	<2e-16	***
subyrctr	0.0341	0.0171	2.00	0.046	*
predead	-0.1363	0.5169	-0.26	0.792	

Signif. codes: 0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Correlation of Fixed Effects:

(Intr) sbyrct
subyrctr -0.448
predead -0.001 -0.418

>

> `discont01.lmer.clockerror01.sim <- mcsamp(discont01.lmer.clockerror01)`

>

> `print(discont01.lmer.clockerror01.sim)`

fit using lmer,

3 chains, each with 1000 iterations (first 500 discarded)

n.sims = 1500 iterations saved

	mean	sd	2.5%	25%	50%	75%	97.5%	Rhat	n.eff
beta.(Intercept)	2.3	0.2	1.9	2.2	2.3	2.4	2.6	1.2	16
beta.su	0.0	0.0	0.0	0.0	0.0	0.0	0.1	1.0	49
beta.predead	0.0	0.5	-0.9	-0.4	0.0	0.4	1.0	1.0	92
sigma.dscd.(In)	0.9	0.2	0.6	0.7	0.9	1.0	1.2	1.2	17
eta.discode.(Intercept) [1]	0.2	0.9	-1.2	-0.4	0.1	0.7	2.5	1.1	86
eta.discode.(Intercept) [2]	0.2	0.8	-1.3	-0.4	0.2	0.7	1.9	1.0	190
eta.discode.(Intercept) [3]	0.4	0.8	-0.8	-0.2	0.2	0.8	2.4	1.0	200
eta.discode.(Intercept) [4]	0.0	1.0	-1.7	-0.8	0.0	0.6	2.5	1.1	250
eta.discode.(Intercept) [5]	0.0	0.9	-1.7	-0.5	0.0	0.7	1.7	1.0	150
eta.discode.(Intercept) [6]	-1.7	0.4	-2.5	-2.0	-1.7	-1.5	-1.0	1.1	25
eta.discode.(Intercept) [7]	0.3	0.8	-1.0	-0.3	0.2	0.7	2.4	1.0	650
eta.discode.(Intercept) [8]	-0.8	0.6	-1.9	-1.1	-0.8	-0.4	0.4	1.1	39
eta.discode.(Intercept) [9]	0.2	0.8	-1.3	-0.4	0.3	0.8	1.5	1.0	200
eta.discode.(Intercept) [10]	-0.2	0.9	-2.1	-0.9	-0.2	0.4	1.5	1.1	40
eta.discode.(Intercept) [11]	-0.6	0.7	-1.9	-1.0	-0.6	-0.1	0.7	1.2	16
eta.discode.(Intercept) [12]	-0.3	0.5	-1.2	-0.7	-0.3	0.1	0.9	1.1	63
eta.discode.(Intercept) [13]	0.1	0.9	-1.9	-0.5	0.1	0.6	1.6	1.0	110
eta.discode.(Intercept) [14]	0.1	0.8	-1.3	-0.6	0.1	0.6	1.7	1.0	1000
eta.discode.(Intercept) [15]	-0.6	0.9	-2.5	-1.3	-0.5	0.0	1.1	1.0	110
eta.discode.(Intercept) [16]	0.3	0.8	-1.3	-0.2	0.3	0.8	1.9	1.1	43
eta.discode.(Intercept) [17]	0.1	0.9	-1.6	-0.4	0.0	0.5	1.7	1.0	460
eta.discode.(Intercept) [18]	-2.4	0.6	-3.6	-2.8	-2.4	-2.0	-1.0	1.1	35
eta.discode.(Intercept) [19]	0.0	0.8	-1.7	-0.7	0.0	0.6	1.5	1.0	51
eta.discode.(Intercept) [20]	0.0	0.9	-1.7	-0.6	0.1	0.5	1.7	1.1	110
eta.discode.(Intercept) [21]	0.3	0.7	-1.0	-0.2	0.4	0.8	1.7	1.0	370
eta.discode.(Intercept) [22]	0.2	0.9	-1.6	-0.4	0.3	0.6	2.1	1.0	59
eta.discode.(Intercept) [23]	0.2	0.7	-1.2	-0.1	0.2	0.7	1.6	1.0	140
eta.discode.(Intercept) [24]	0.3	0.8	-1.7	-0.2	0.3	0.8	2.0	1.1	38
eta.discode.(Intercept) [25]	0.1	0.8	-1.4	-0.5	0.1	0.7	1.7	1.0	230
eta.discode.(Intercept) [26]	0.1	0.9	-1.8	-0.3	0.2	0.7	1.3	1.0	870
eta.discode.(Intercept) [27]	-0.2	0.7	-1.5	-0.7	-0.2	0.2	1.8	1.0	160
eta.discode.(Intercept) [28]	0.1	0.8	-1.3	-0.6	0.3	0.7	1.5	1.0	140
eta.discode.(Intercept) [29]	0.2	0.9	-1.4	-0.5	0.1	0.7	2.1	1.1	26
eta.discode.(Intercept) [30]	0.3	0.7	-1.4	-0.2	0.2	0.7	1.9	1.0	220
eta.discode.(Intercept) [31]	0.1	0.7	-1.3	-0.2	0.2	0.6	1.4	1.0	600
eta.discode.(Intercept) [32]	0.4	0.8	-1.1	-0.1	0.4	0.8	1.9	1.0	69
eta.discode.(Intercept) [33]	0.0	0.8	-1.7	-0.5	0.0	0.6	1.8	1.0	380
eta.discode.(Intercept) [34]	0.0	0.8	-1.5	-0.5	-0.1	0.6	1.7	1.0	72

eta.discodes.(Intercept) [35]	0.2	0.9	-1.6	-0.4	0.1	0.8	2.0	1.0	190
eta.discodes.(Intercept) [36]	0.3	0.8	-1.4	-0.2	0.2	0.7	2.1	1.0	68
eta.discodes.(Intercept) [37]	0.0	0.9	-2.2	-0.5	0.1	0.6	1.4	1.0	150
eta.discodes.(Intercept) [38]	0.2	0.9	-1.3	-0.5	0.1	0.9	1.8	1.1	37
eta.discodes.(Intercept) [39]	0.0	0.9	-1.6	-0.6	-0.1	0.6	1.7	1.0	52
eta.discodes.(Intercept) [40]	0.1	0.9	-1.5	-0.5	0.1	0.7	2.0	1.0	1500
eta.discodes.(Intercept) [41]	0.2	0.8	-1.4	-0.3	0.1	0.6	1.9	1.0	120
eta.discodes.(Intercept) [42]	0.0	0.8	-1.4	-0.5	-0.1	0.5	1.9	1.1	45
eta.discodes.(Intercept) [43]	0.3	0.7	-1.3	-0.2	0.2	0.8	1.7	1.0	310
eta.discodes.(Intercept) [44]	0.2	0.8	-1.7	-0.3	0.1	0.7	2.1	1.0	420
eta.discodes.(Intercept) [45]	0.6	0.8	-0.8	0.1	0.7	1.0	2.2	1.0	200
eta.discodes.(Intercept) [46]	-0.1	0.8	-1.5	-0.4	-0.1	0.4	1.5	1.0	1500
eta.discodes.(Intercept) [47]	0.1	0.8	-1.4	-0.4	0.1	0.6	1.9	1.0	1500
eta.discodes.(Intercept) [48]	0.0	0.9	-2.2	-0.5	0.1	0.5	1.7	1.0	480
eta.discodes.(Intercept) [49]	0.5	0.7	-0.8	0.0	0.5	1.0	1.9	1.0	270
eta.discodes.(Intercept) [50]	-1.4	0.5	-2.4	-1.8	-1.4	-1.0	-0.6	1.1	19
eta.discodes.(Intercept) [51]	0.1	0.9	-1.7	-0.5	0.1	0.8	1.8	1.0	1300
eta.discodes.(Intercept) [52]	0.2	1.0	-1.8	-0.5	0.2	1.0	2.1	1.0	140
eta.discodes.(Intercept) [53]	-0.2	0.7	-1.6	-0.7	-0.2	0.2	1.3	1.0	170
eta.discodes.(Intercept) [54]	0.1	0.8	-1.8	-0.4	0.1	0.8	1.4	1.0	230
eta.discodes.(Intercept) [55]	0.3	0.9	-1.6	-0.2	0.3	0.8	2.0	1.0	940
eta.discodes.(Intercept) [56]	0.0	0.6	-1.1	-0.5	0.0	0.5	1.4	1.0	120
eta.discodes.(Intercept) [57]	0.1	0.9	-1.8	-0.4	0.1	0.7	1.8	1.0	500
eta.discodes.(Intercept) [58]	-0.8	0.4	-1.7	-1.0	-0.8	-0.6	-0.1	1.1	26
eta.discodes.(Intercept) [59]	0.1	0.9	-1.5	-0.5	0.1	0.6	2.6	1.0	1500
eta.discodes.(Intercept) [60]	0.1	0.8	-1.6	-0.5	0.1	0.6	1.6	1.0	150
eta.discodes.(Intercept) [61]	0.1	0.8	-1.2	-0.4	0.0	0.6	1.9	1.0	100
eta.discodes.(Intercept) [62]	0.0	0.8	-1.7	-0.5	-0.1	0.5	1.7	1.0	430
eta.discodes.(Intercept) [63]	0.0	0.8	-1.7	-0.5	0.0	0.5	1.3	1.1	29
eta.discodes.(Intercept) [64]	0.1	0.8	-1.4	-0.5	0.1	0.6	2.1	1.1	48
eta.discodes.(Intercept) [65]	0.1	0.9	-1.5	-0.6	0.1	0.7	1.8	1.0	170
eta.discodes.(Intercept) [66]	0.1	0.8	-1.3	-0.5	0.0	0.6	1.9	1.1	130
eta.discodes.(Intercept) [67]	0.2	0.8	-1.5	-0.4	0.2	0.6	2.1	1.0	1500
eta.discodes.(Intercept) [68]	0.1	0.7	-1.1	-0.5	0.0	0.6	1.4	1.0	190
eta.discodes.(Intercept) [69]	-1.1	0.3	-1.8	-1.3	-1.1	-0.9	-0.4	1.1	28
eta.discodes.(Intercept) [70]	0.2	0.8	-1.3	-0.3	0.2	0.6	2.3	1.1	420
eta.discodes.(Intercept) [71]	0.1	0.9	-1.3	-0.5	0.0	0.7	2.1	1.0	400
eta.discodes.(Intercept) [72]	-0.1	0.8	-1.6	-0.6	-0.2	0.3	1.6	1.1	38
eta.discodes.(Intercept) [73]	-0.5	0.8	-2.0	-1.0	-0.6	0.1	0.8	1.0	1400
eta.discodes.(Intercept) [74]	0.0	0.9	-1.7	-0.5	0.0	0.5	1.8	1.0	130
eta.discodes.(Intercept) [75]	0.2	0.8	-1.5	-0.3	0.2	0.8	2.1	1.1	36
eta.discodes.(Intercept) [76]	0.0	0.8	-1.5	-0.5	0.1	0.5	1.4	1.0	510
eta.discodes.(Intercept) [77]	0.1	0.8	-1.3	-0.4	0.1	0.6	1.5	1.0	1500
eta.discodes.(Intercept) [78]	0.1	1.0	-1.3	-0.5	0.0	0.6	2.8	1.1	35
eta.discodes.(Intercept) [79]	0.2	0.8	-1.4	-0.3	0.2	0.7	1.8	1.0	300
eta.discodes.(Intercept) [80]	0.0	0.8	-1.6	-0.5	0.1	0.5	1.6	1.0	110
eta.discodes.(Intercept) [81]	-0.2	0.6	-1.4	-0.5	-0.2	0.4	0.9	1.1	24
eta.discodes.(Intercept) [82]	0.1	0.7	-1.4	-0.5	0.0	0.5	1.5	1.0	800
eta.discodes.(Intercept) [83]	0.2	0.9	-2.0	-0.3	0.2	0.8	2.1	1.0	120
eta.discodes.(Intercept) [84]	0.1	1.0	-2.0	-0.6	0.0	0.6	2.2	1.0	420
eta.discodes.(Intercept) [85]	0.3	0.8	-1.2	-0.3	0.2	0.8	2.5	1.0	86
eta.discodes.(Intercept) [86]	0.0	1.0	-2.2	-0.5	0.0	0.6	2.4	1.1	150
eta.discodes.(Intercept) [87]	0.0	0.8	-1.2	-0.5	0.1	0.5	1.5	1.0	49
eta.discodes.(Intercept) [88]	-0.5	0.8	-1.7	-1.1	-0.7	0.0	1.2	1.1	41
eta.discodes.(Intercept) [89]	0.1	0.8	-1.3	-0.4	-0.1	0.5	1.8	1.0	140
eta.discodes.(Intercept) [90]	0.1	1.0	-1.9	-0.5	0.1	0.6	1.9	1.0	86
eta.discodes.(Intercept) [91]	0.1	1.0	-2.1	-0.4	0.1	0.8	1.8	1.0	310
eta.discodes.(Intercept) [92]	0.2	1.0	-1.5	-0.4	0.1	0.9	1.8	1.1	24
eta.discodes.(Intercept) [93]	0.1	0.8	-1.5	-0.5	0.0	0.6	1.5	1.0	1500
eta.discodes.(Intercept) [94]	0.1	0.8	-1.7	-0.3	0.1	0.6	2.0	1.0	180
eta.discodes.(Intercept) [95]	0.1	0.8	-1.7	-0.5	0.2	0.7	1.9	1.0	810
eta.discodes.(Intercept) [96]	0.1	0.8	-1.3	-0.5	0.2	0.7	1.6	1.0	94
eta.discodes.(Intercept) [97]	0.2	0.8	-1.4	-0.4	0.2	0.8	1.6	1.0	1500

eta.discodes.(Intercept) [98]	0.0	0.9	-2.1	-0.7	0.1	0.7	1.8	1.1	47
eta.discodes.(Intercept) [99]	0.1	0.8	-1.3	-0.4	0.0	0.7	1.9	1.0	300
eta.discodes.(Intercept) [100]	0.1	0.8	-1.4	-0.5	0.1	0.5	1.9	1.1	26
eta.discodes.(Intercept) [101]	0.2	0.8	-1.3	-0.4	0.3	0.7	1.7	1.0	170
eta.discodes.(Intercept) [102]	-0.4	0.8	-2.0	-1.1	-0.3	0.1	1.0	1.0	170
eta.discodes.(Intercept) [103]	0.1	0.9	-1.6	-0.4	0.1	0.6	1.8	1.1	59
eta.discodes.(Intercept) [104]	0.0	0.9	-1.9	-0.7	-0.1	0.5	2.0	1.0	1500
eta.discodes.(Intercept) [105]	0.0	0.7	-1.6	-0.7	0.0	0.5	1.3	1.0	97
eta.discodes.(Intercept) [106]	-0.1	0.8	-1.6	-0.6	-0.1	0.6	1.3	1.1	44
eta.discodes.(Intercept) [107]	0.2	0.8	-1.3	-0.4	0.2	0.7	1.7	1.0	75
eta.discodes.(Intercept) [108]	0.2	0.8	-1.2	-0.4	0.2	0.7	1.8	1.0	300
eta.discodes.(Intercept) [109]	-0.3	0.6	-1.7	-0.7	-0.2	0.1	1.0	1.0	140
eta.discodes.(Intercept) [110]	-1.3	0.5	-2.3	-1.7	-1.3	-0.9	-0.4	1.0	340
eta.discodes.(Intercept) [111]	0.1	0.8	-1.4	-0.4	0.2	0.8	1.5	1.1	46
eta.discodes.(Intercept) [112]	-0.1	0.7	-1.4	-0.6	-0.1	0.4	1.1	1.0	82
eta.discodes.(Intercept) [113]	0.2	0.8	-1.3	-0.4	0.1	0.7	1.8	1.0	260
eta.discodes.(Intercept) [114]	0.1	0.9	-1.6	-0.5	0.1	0.7	2.0	1.0	400
eta.discodes.(Intercept) [115]	0.1	0.8	-1.4	-0.5	0.1	0.7	1.5	1.0	900
eta.discodes.(Intercept) [116]	-0.8	0.7	-2.0	-1.3	-0.9	-0.3	0.6	1.1	18
eta.discodes.(Intercept) [117]	0.0	0.9	-1.7	-0.5	0.1	0.4	1.9	1.0	140
eta.discodes.(Intercept) [118]	0.2	0.8	-1.5	-0.4	0.3	0.7	1.6	1.0	90
eta.discodes.(Intercept) [119]	0.3	0.8	-1.0	-0.3	0.3	0.9	1.9	1.0	60
eta.discodes.(Intercept) [120]	0.1	0.8	-1.2	-0.4	0.2	0.6	1.9	1.0	480
eta.discodes.(Intercept) [121]	0.5	0.7	-0.8	0.1	0.4	0.9	2.1	1.0	290
eta.discodes.(Intercept) [122]	0.0	0.7	-1.1	-0.5	-0.1	0.5	1.3	1.0	100
eta.discodes.(Intercept) [123]	0.1	0.9	-1.5	-0.6	0.3	0.7	1.7	1.0	390
eta.discodes.(Intercept) [124]	0.6	0.7	-0.7	0.0	0.6	1.1	2.0	1.0	240
eta.discodes.(Intercept) [125]	0.2	0.8	-1.8	-0.3	0.1	0.7	1.8	1.0	380
eta.discodes.(Intercept) [126]	-0.1	1.0	-1.8	-0.7	-0.1	0.5	1.8	1.1	50
eta.discodes.(Intercept) [127]	0.2	0.8	-1.8	-0.2	0.2	0.6	1.9	1.0	350
eta.discodes.(Intercept) [128]	0.1	0.8	-1.3	-0.4	0.1	0.6	1.8	1.0	120
eta.discodes.(Intercept) [129]	-0.5	0.6	-1.6	-0.9	-0.5	-0.1	0.6	1.0	80
eta.discodes.(Intercept) [130]	-0.5	0.8	-2.2	-1.1	-0.6	0.0	1.6	1.0	62
eta.discodes.(Intercept) [131]	-0.5	0.8	-2.7	-1.0	-0.5	-0.1	1.0	1.1	34
eta.discodes.(Intercept) [132]	0.3	0.9	-1.1	-0.3	0.2	0.9	2.4	1.0	1500
eta.discodes.(Intercept) [133]	0.4	1.0	-1.2	-0.3	0.3	1.2	2.7	1.1	44
eta.discodes.(Intercept) [134]	0.2	0.8	-1.3	-0.3	0.2	0.7	1.8	1.0	150
eta.discodes.(Intercept) [135]	0.0	0.9	-1.7	-0.6	0.1	0.5	1.9	1.0	880
eta.discodes.(Intercept) [136]	0.6	0.8	-0.8	0.1	0.6	1.1	2.1	1.0	95
eta.discodes.(Intercept) [137]	0.1	0.7	-1.0	-0.4	0.1	0.7	1.5	1.1	42
eta.discodes.(Intercept) [138]	-0.9	0.5	-2.0	-1.2	-0.9	-0.6	0.2	1.0	89
eta.discodes.(Intercept) [139]	0.3	0.9	-1.2	-0.3	0.1	0.9	2.2	1.0	88
eta.discodes.(Intercept) [140]	0.1	0.8	-1.3	-0.4	0.1	0.5	1.7	1.0	150
eta.discodes.(Intercept) [141]	0.0	0.9	-2.2	-0.6	0.0	0.6	1.9	1.2	18
eta.discodes.(Intercept) [142]	-1.0	0.6	-2.2	-1.5	-1.1	-0.6	0.2	1.1	34
eta.discodes.(Intercept) [143]	0.0	0.7	-1.3	-0.6	0.0	0.4	1.3	1.0	90
eta.discodes.(Intercept) [144]	0.4	0.7	-0.8	-0.1	0.4	0.8	2.0	1.0	180
eta.discodes.(Intercept) [145]	0.0	0.8	-1.9	-0.5	0.0	0.4	1.4	1.0	94
eta.discodes.(Intercept) [146]	0.0	0.9	-1.7	-0.6	0.0	0.6	1.4	1.0	150
eta.discodes.(Intercept) [147]	0.1	0.9	-1.6	-0.6	0.0	0.5	2.4	1.0	290
eta.discodes.(Intercept) [148]	0.3	0.9	-1.2	-0.4	0.2	0.8	2.3	1.0	220
eta.discodes.(Intercept) [149]	0.1	0.8	-1.5	-0.5	0.1	0.7	1.6	1.1	50
eta.discodes.(Intercept) [150]	0.1	0.8	-1.6	-0.6	0.2	0.7	1.7	1.0	230
eta.discodes.(Intercept) [151]	0.0	0.8	-1.7	-0.4	0.0	0.5	1.9	1.1	59
eta.discodes.(Intercept) [152]	0.4	0.7	-0.8	-0.2	0.4	0.9	1.7	1.0	660
eta.discodes.(Intercept) [153]	0.1	0.9	-1.4	-0.6	0.0	0.7	1.9	1.0	170
eta.discodes.(Intercept) [154]	0.1	0.7	-1.1	-0.3	0.0	0.5	1.9	1.0	220
eta.discodes.(Intercept) [155]	0.1	0.9	-1.6	-0.5	0.2	0.6	1.9	1.0	73
eta.discodes.(Intercept) [156]	0.1	0.9	-1.8	-0.5	0.3	0.7	2.2	1.2	18
eta.discodes.(Intercept) [157]	0.1	0.8	-1.6	-0.4	0.1	0.7	1.5	1.0	200
eta.discodes.(Intercept) [158]	0.2	0.8	-1.3	-0.4	0.3	0.7	1.7	1.0	1500
eta.discodes.(Intercept) [159]	-0.6	0.5	-1.4	-0.9	-0.6	-0.2	0.2	1.0	150
eta.discodes.(Intercept) [160]	0.0	0.9	-1.9	-0.5	0.0	0.5	1.9	1.0	87

eta.discrim.(Intercept) [161]	0.1	0.8	-1.3	-0.5	0.0	0.6	1.7	1.1	48
eta.discrim.(Intercept) [162]	0.0	0.8	-1.7	-0.6	-0.1	0.5	1.6	1.0	130
eta.discrim.(Intercept) [163]	-0.5	0.8	-1.9	-1.1	-0.5	0.0	1.2	1.0	76
eta.discrim.(Intercept) [164]	0.0	0.9	-1.8	-0.5	0.2	0.5	1.7	1.1	61
eta.discrim.(Intercept) [165]	0.1	0.9	-1.5	-0.5	0.1	0.6	2.1	1.0	80
eta.discrim.(Intercept) [166]	0.3	0.7	-1.1	-0.2	0.3	0.7	2.0	1.0	100
eta.discrim.(Intercept) [167]	0.3	0.9	-1.2	-0.2	0.1	1.1	1.7	1.0	130
eta.discrim.(Intercept) [168]	0.2	1.0	-1.4	-0.6	0.2	0.9	3.0	1.0	62
eta.discrim.(Intercept) [169]	-1.1	0.7	-2.5	-1.5	-1.1	-0.6	0.4	1.0	88
eta.discrim.(Intercept) [170]	0.1	0.5	-0.9	-0.2	0.1	0.6	1.0	1.0	240
eta.discrim.(Intercept) [171]	0.1	0.8	-1.4	-0.5	0.0	0.6	1.7	1.0	61
eta.discrim.(Intercept) [172]	0.0	0.7	-1.4	-0.4	-0.1	0.5	1.5	1.0	53
eta.discrim.(Intercept) [173]	-0.1	0.5	-1.2	-0.4	-0.1	0.2	0.8	1.0	270
eta.discrim.(Intercept) [174]	0.3	1.0	-1.5	-0.3	0.2	1.0	2.2	1.0	100
eta.discrim.(Intercept) [175]	0.1	0.9	-1.7	-0.6	0.1	0.7	1.9	1.0	99
eta.discrim.(Intercept) [176]	0.4	0.9	-1.1	-0.4	0.3	1.1	2.2	1.1	61
eta.discrim.(Intercept) [177]	0.1	0.9	-1.6	-0.5	0.1	0.7	1.7	1.1	42
eta.discrim.(Intercept) [178]	0.3	0.8	-1.2	-0.1	0.3	0.8	2.2	1.0	65
eta.discrim.(Intercept) [179]	0.2	0.9	-1.6	-0.6	0.2	0.9	1.7	1.0	450
eta.discrim.(Intercept) [180]	0.2	1.0	-1.7	-0.5	0.1	0.8	2.2	1.0	160
eta.discrim.(Intercept) [181]	0.1	0.9	-1.6	-0.5	0.0	0.6	2.2	1.0	230
eta.discrim.(Intercept) [182]	0.0	0.8	-1.3	-0.6	0.0	0.5	1.7	1.1	40
eta.discrim.(Intercept) [183]	0.2	0.9	-1.4	-0.4	0.2	0.8	2.3	1.1	45
eta.discrim.(Intercept) [184]	-0.6	0.7	-2.4	-1.0	-0.6	-0.1	0.7	1.0	73
eta.discrim.(Intercept) [185]	0.1	0.8	-1.8	-0.3	0.0	0.6	1.6	1.0	98
eta.discrim.(Intercept) [186]	0.0	0.9	-2.1	-0.7	0.3	0.6	1.9	1.1	21
eta.discrim.(Intercept) [187]	0.0	0.9	-1.8	-0.7	-0.1	0.6	1.9	1.1	33
eta.discrim.(Intercept) [188]	0.4	0.6	-0.6	0.0	0.4	0.7	1.9	1.0	55
eta.discrim.(Intercept) [189]	0.1	0.9	-1.7	-0.4	0.2	0.7	1.8	1.0	330
eta.discrim.(Intercept) [190]	0.1	0.9	-1.5	-0.5	0.2	0.8	1.9	1.1	32
eta.discrim.(Intercept) [191]	-0.1	0.9	-1.7	-0.7	-0.1	0.4	1.9	1.0	70
eta.discrim.(Intercept) [192]	-0.7	0.8	-2.8	-1.1	-0.7	-0.2	0.8	1.1	27
eta.discrim.(Intercept) [193]	0.0	0.9	-1.6	-0.5	0.0	0.6	1.7	1.0	99
eta.discrim.(Intercept) [194]	0.1	0.9	-1.4	-0.4	0.0	0.7	1.8	1.0	150
eta.discrim.(Intercept) [195]	0.2	0.9	-1.5	-0.4	0.1	0.7	2.2	1.0	140
eta.discrim.(Intercept) [196]	0.2	0.8	-1.2	-0.4	0.3	0.6	1.9	1.0	81
eta.discrim.(Intercept) [197]	-0.7	0.9	-2.2	-1.4	-0.7	-0.1	1.0	1.0	76
eta.discrim.(Intercept) [198]	-0.2	0.7	-1.5	-0.7	-0.2	0.3	1.5	1.0	120
eta.discrim.(Intercept) [199]	-0.8	1.0	-3.8	-1.5	-0.8	-0.2	0.9	1.3	13
eta.discrim.(Intercept) [200]	0.1	0.9	-1.6	-0.4	0.1	0.8	1.8	1.0	65
eta.discrim.(Intercept) [201]	0.0	0.8	-1.4	-0.5	0.0	0.4	1.7	1.0	280
eta.discrim.(Intercept) [202]	0.2	0.8	-1.3	-0.4	0.2	0.7	1.9	1.0	56
eta.discrim.(Intercept) [203]	0.1	1.0	-1.4	-0.5	-0.1	0.6	2.2	1.1	93
eta.discrim.(Intercept) [204]	0.0	0.8	-1.7	-0.4	0.0	0.5	1.7	1.0	77
eta.discrim.(Intercept) [205]	0.0	0.9	-1.4	-0.6	-0.1	0.6	1.9	1.0	490
eta.discrim.(Intercept) [206]	0.0	0.8	-1.5	-0.5	0.0	0.5	1.5	1.0	1200
eta.discrim.(Intercept) [207]	0.2	0.9	-1.7	-0.5	0.1	0.8	1.9	1.0	150
eta.discrim.(Intercept) [208]	0.1	0.9	-1.7	-0.6	0.1	0.7	1.8	1.0	130
eta.discrim.(Intercept) [209]	-0.6	0.8	-2.4	-1.2	-0.6	-0.1	0.8	1.0	570

For each parameter, n.eff is a crude measure of effective sample size,
and Rhat is the potential scale reduction factor (at convergence, Rhat=1).

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