Loglinear Model Analysis

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$$\log(\mu_{ij}) = \lambda + \lambda_i^X + \lambda_j^Y + \lambda_{ij}^{XY}$$

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```
dat <- R.rspss("data/reuters.sav", vlabs = F)
R.msmm(dat)
```

	M	SD	Min	Max	NAs
id	769.5	444.1	1	1538	0
response	0.84	0.73	0	2	0
party	0.42	0.49	0	1	377
partmiss	0.25	0.43	0	1	0
ind	0.14	0.35	0	1	0

```
dat <- dat[, -3]
dat <- subset(dat, response < 2)
dat <- within(dat, {
    ind.f <- factor(ind,
                    levels = unique(ind),
                    labels = c("Independent",
                               "Affililate"))
    response.f <- factor(response,
                    levels = c(0, 1),
                    labels = c("Trump",
                               "Clinton"))
})

tbl <- table(dat$ind.f, dat$response.f)
dimnames(tbl) <- list(ind = levels(dat$ind.f),
                      response = levels(dat$response.f))
mosaicplot(tbl, type = "deviance", las = 2, color = mypal.a75[c(5, 16)])
```

tbl
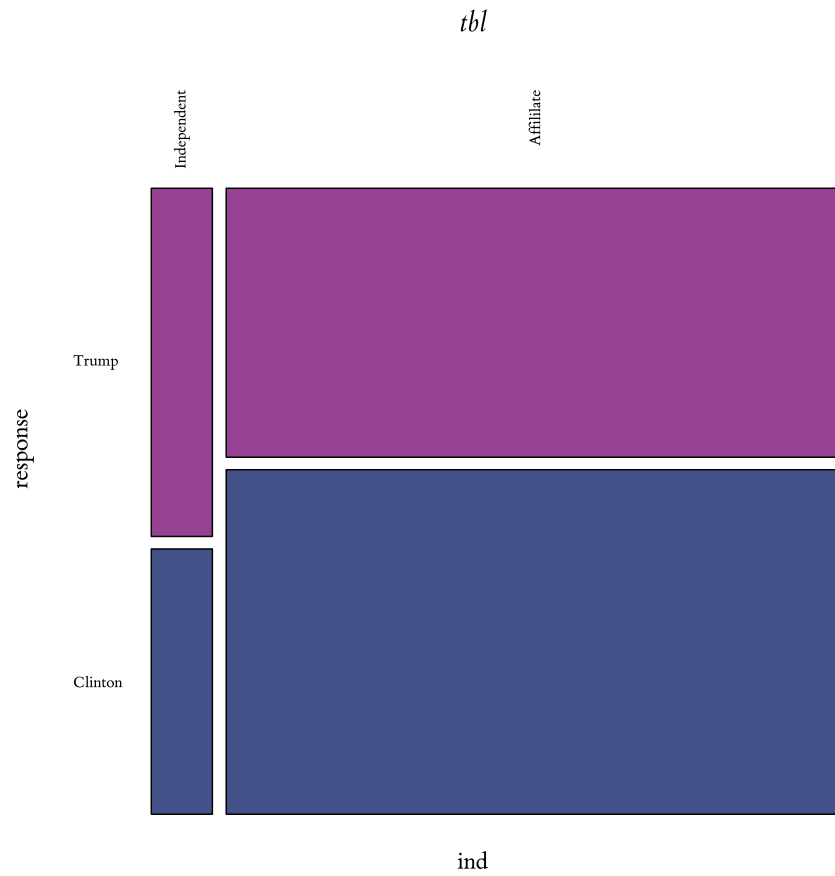

```
library(MASS)
logmodel <- loglm( ~ ind + response, digits = 4, data = tbl)
```

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[1] **Note:** This document was created using **R**-*v3.3.2* R Core Team, *R*, and the following **R**-*packages*: *base-v3.3*. R Core Team, *R*, *bibtex-v0.4*. Francois, *Bibtex*, *car-v2.1*. Fox and Weisberg, *An R Companion to Applied Regression*, *dplyr-v0.5*. Wickham and Francois, *Dplyr*, *DT-v0.2*. Xie, *DT*, *extrafont-v0.17*. Chang, *Extrafont*, *ggplot2-v2.1*. Wickham, *Ggplot2*, *knitcitations-v1.0*. Boettiger, *knitcitations*, *knitr-v1.14*. Xie, *Dynamic Documents with R and Knitr*, *pander-v0.6*. Daroczi and Tsegelskyi, *Pander*, *papaja-v0.1*. Aust and Barth, *Papaja*, *plyr-v1.8*. Wickham, "The Split-Apply-Combine Strategy for Data Analysis.", *rmarkdown-v1.1*. Allaire et al., *rmarkdown*, *scales-v0.4*. Wickham, *Scales*, *tidyr-v0.6*. Wickham, *Tidyr*, *ggthemes-v3.2*. Arnold, *Ggthemes*, *gtable-v0.2*. Wickham, *Gtable*, *kableExtra-v0.0*. Zhu, *KableExtra*, *tufte-v0.2*. Xie and Allaire, *Tufte*, *MASS-v7.3*. Venables and Ripley, *Modern Applied Statistics with S*, *devtools-v1.12*. Wickham and Chang, *Devtools*, *highlight-v0.4*. Francois, *Highlight*, *sysfonts-v0.5*. Qiu and others, *Sysfonts*, and *showtext-v0.4*. Qiu, *Showtext*

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