Output from walking.R

```
> # walking.R
>
> library(lsmeans)
>
> walkdata <- read.table(file="walking.dat",header=T) # read the data in
> head(walkdata)
    age   group
1  9.00  active
2 11.00 passive
3 11.50    noex
4 13.25 control
5  9.50  active
6 10.00 passive
> is.factor(walkdata$group) # notice that be default when R reads in a
[1] TRUE
>                           # non-numeric variable it treats it as a factor
>
> levels(walkdata$group) # notice the levels are put in alphabetical order
[1] "active"  "control" "noex"    "passive"
>
>
> m1 <- aov(age~group,walkdata)
> summary(m1) # this summarizes the fitted model.
            Df Sum Sq Mean Sq F value Pr(>F)
group        3  14.78   4.926   2.142  0.129
Residuals   19  43.69   2.299
>
> lsmeans(m1, specs = my.contrasts ~ group,
+   contr = list(my.contrasts =
+     list(ctrl.vs.others = c(1,-3,1,1),
+          ex.vs.none = c(1,0,-2,1),
+          act.vs.pass=c(1,0,0,-1))))
$`group lsmeans`
   group   lsmean        SE df  lower.CL upper.CL
  active 10.12500 0.6190654 19  8.829281 11.42072
 control 12.35000 0.6781522 19 10.930611 13.76939
    noex 11.70833 0.6190654 19 10.412615 13.00405
 passive 11.37500 0.6190654 19 10.079281 12.67072

$`group my.contrasts`
                estimate        SE df  t.ratio p.value
ctrl.vs.others -3.841667 2.2997259 19 -1.67049 0.11121
ex.vs.none     -1.916667 1.5163943 19 -1.26396 0.22153
act.vs.pass    -1.250000 0.8754907 19 -1.42777 0.16959
    p values are not adjusted

>
```