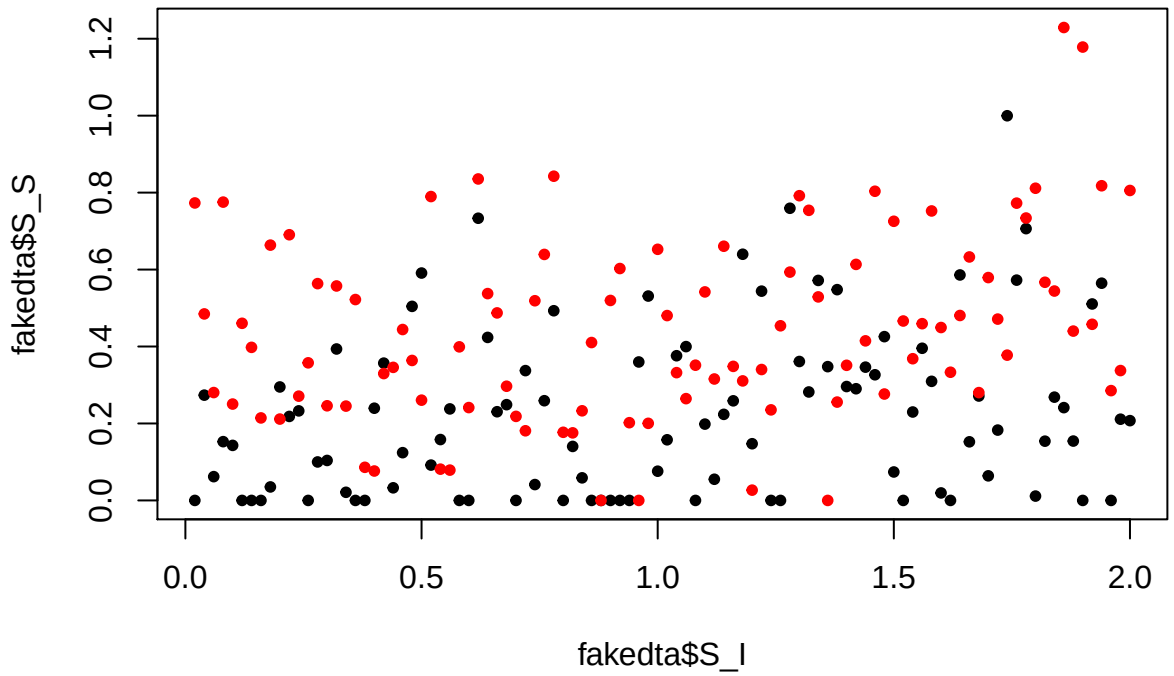
CIs_w_ggplot.R

callinswitzer

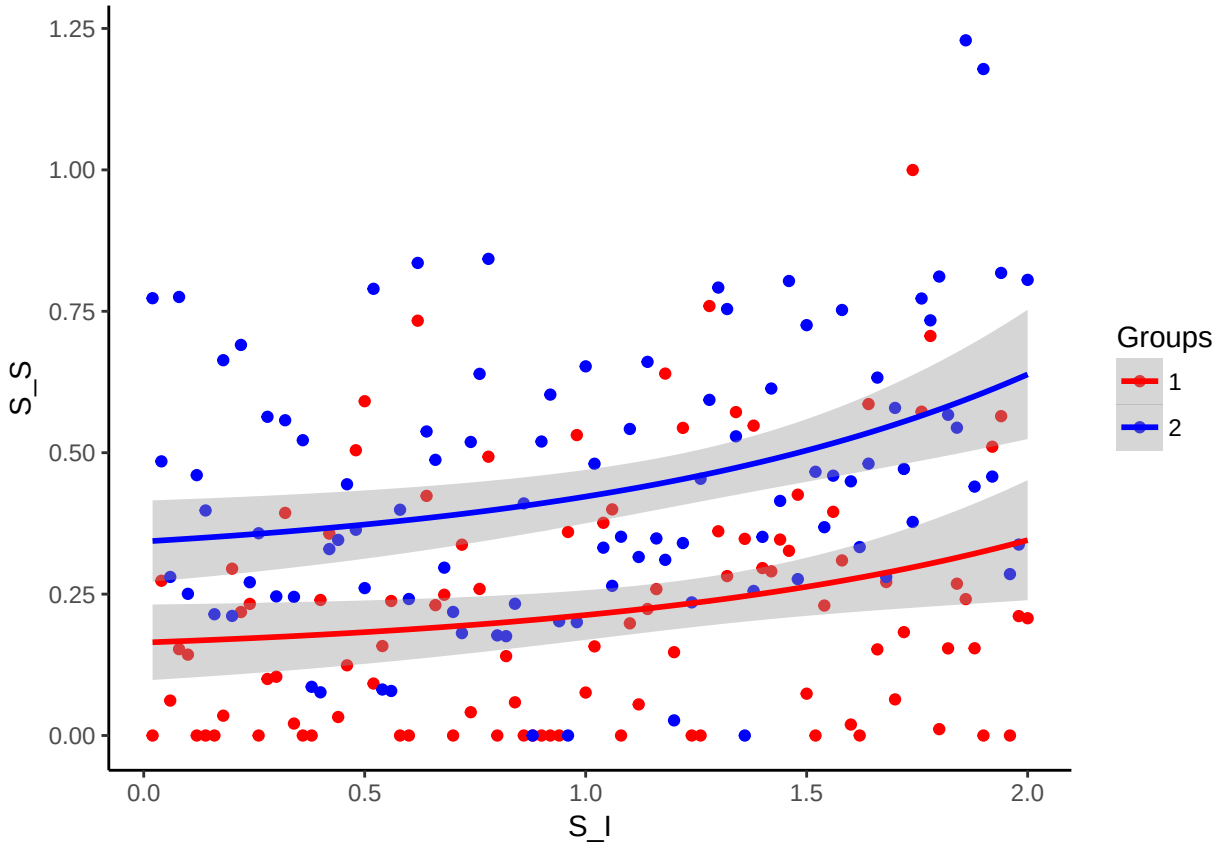
Sat Feb 18 11:07:25 2017

```
## Callin Switzer
## 18 Feb 2017
## Ideas for representing Seed set



## make some fake data
n = 200
set.seed(123)
fakedta = rpois(n, lambda = c(seq(1, to = 3, length.out = n/2), seq(2,3.5, length.out = n/2)))
fakedta[(n/2):length(fakedta)] <- fakedta[(n/2):length(fakedta)] +1
fakedta = fakedta / max(fakedta) + rnorm(n, sd = 0.2)
fakedta[fakedta< 0] = 0
fakedta <- data.frame(S_S = fakedta, group  = rep(c(1,2), each = n/2), S_I = rep(1:(n/2), 2) / 50)

# plot by color in base plot function
plot(x = fakedta$S_I, y = fakedta$S_S, col = fakedta$group, pch = 20)


## here's a quick way to draw a CI with ggplot
library(ggplot2)
```

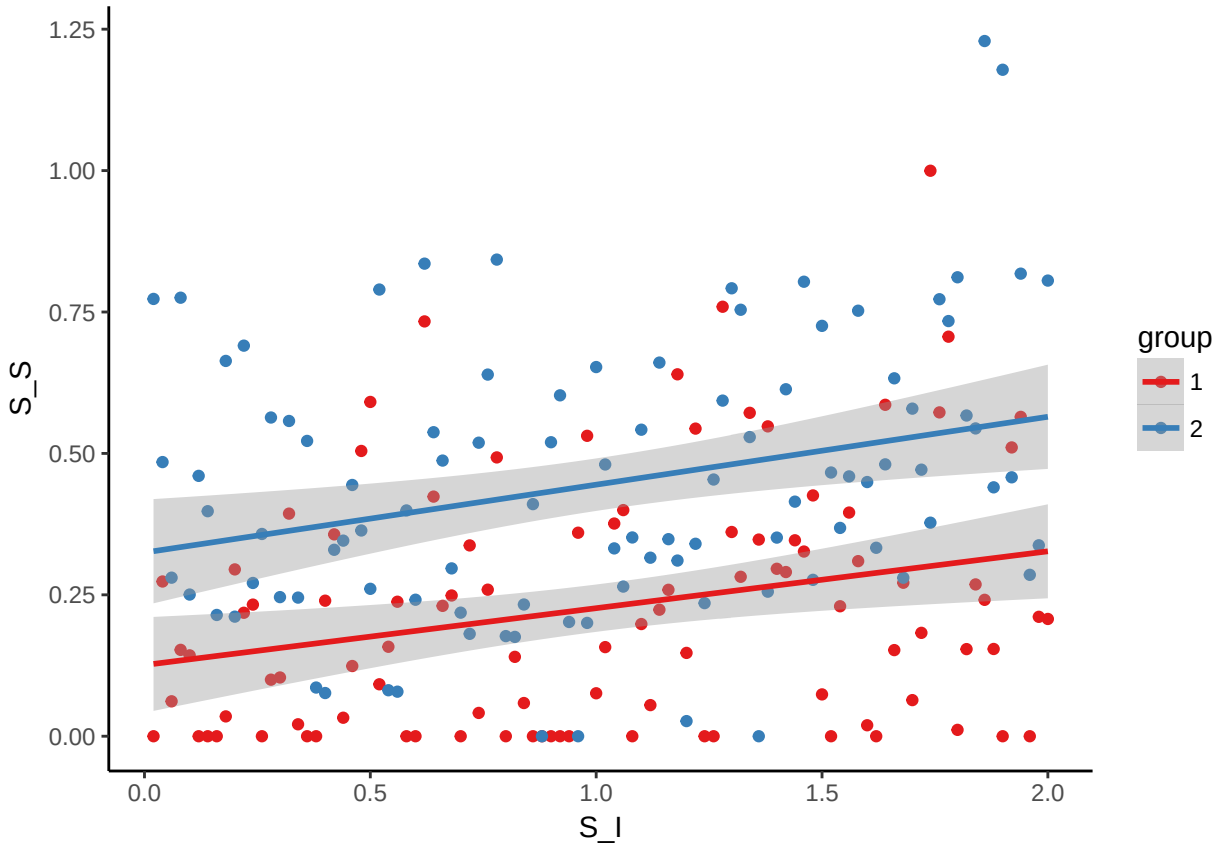



```
theme_set(theme_classic())

# plot with curve + conf interval
ggplot(fakedta, aes(x = S_I, y = S_S, color = factor(group))) +
```

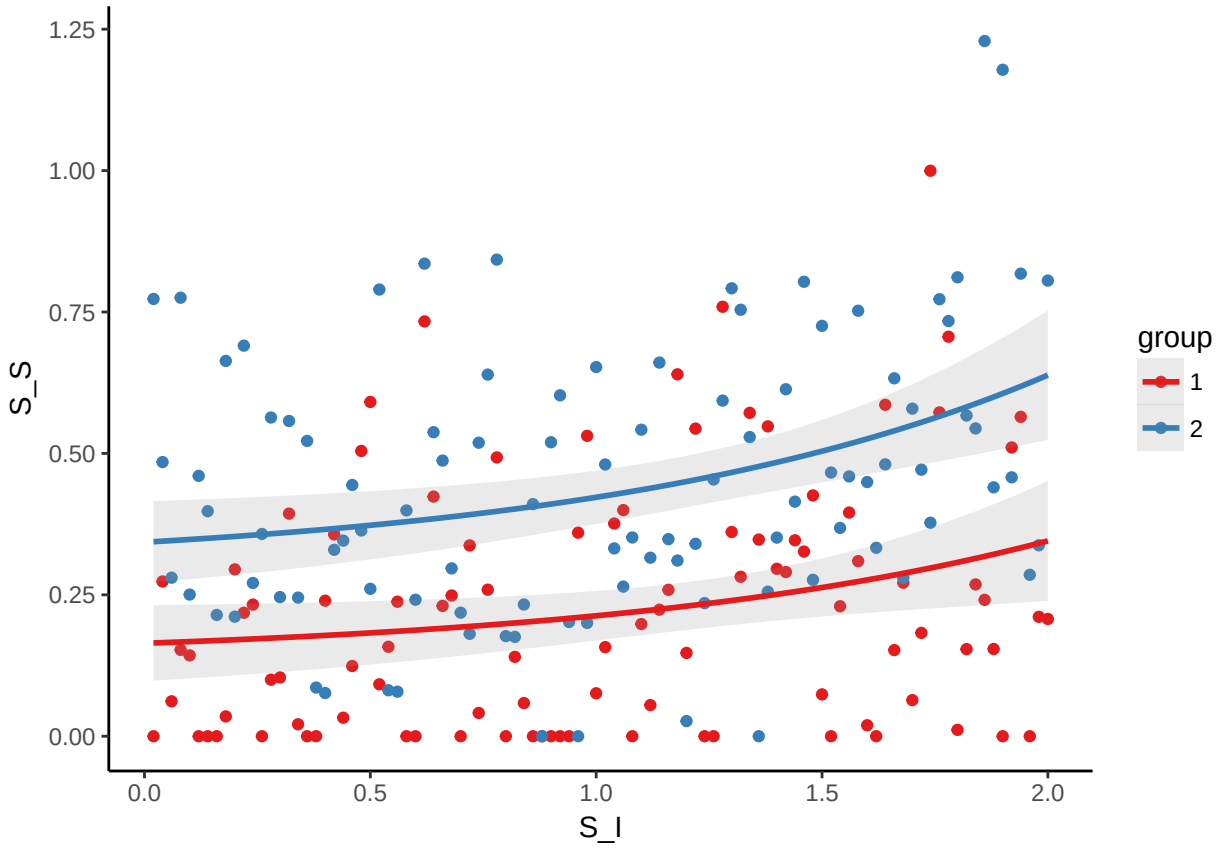
```
    geom_point() +
    scale_color_manual(name = "Groups", values = c('red', 'blue')) +
    stat_smooth(method = "lm", formula = y ~ exp(x), size = 1, se = TRUE)
```



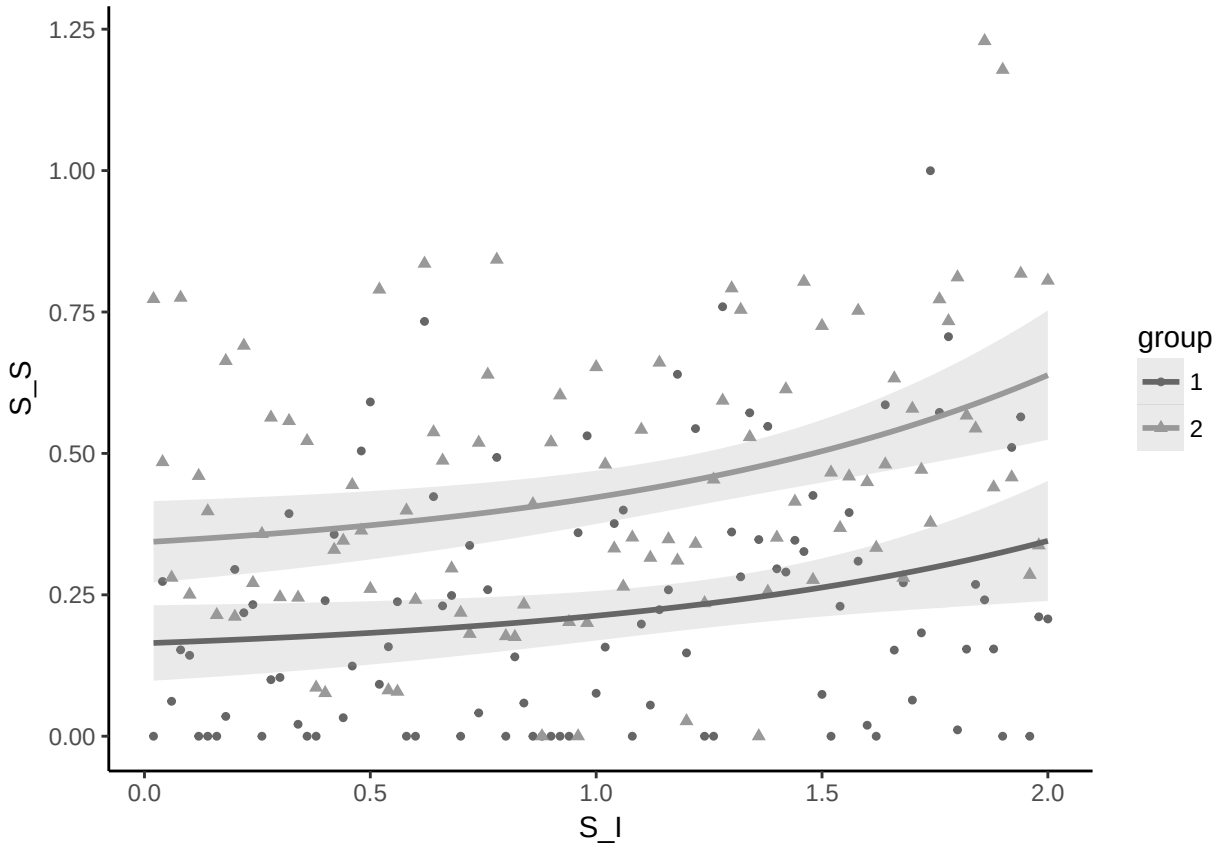

```
# plot with pure linear model
ggplot(fakedta, aes(x = S_I, y = S_S, color = factor(group))) +
    geom_point() +
    scale_color_brewer(name = "group", palette = "Set1") +
    stat_smooth(method = "lm", formula = y ~ x, size = 1, se = TRUE)
```




```
# plot with curve with new colors
ggplot(fakedta, aes(x = S_I, y = S_S, color = factor(group))) +
     geom_point() +
     scale_color_brewer(name = "group", palette = "Set1") +
     stat_smooth(method = "lm", formula = y ~ exp(x), size = 1, se = TRUE, alpha = 0.2)
```




```
# greyscale + different shapes for each group
ggplot(fakedta, aes(x = S_I, y = S_S, color = factor(group), shape = factor(group))) +
     geom_point() +
     theme(legend.position = ) +
     scale_color_manual(name = "group", values = c('grey40', 'grey60')) +
     scale_shape_manual(name = "group", values = c(20, 17)) +
     stat_smooth(method = "lm", formula = y ~ exp(x), size = 1, se = TRUE, alpha = 0.2)
```


1.25
1.00
0.75
0.50
0.25
0.00
S_S
0.0
0.5
1.0
1.5
2.0
S_I
group
1
2