SC Study 1 Looking At Data

Demographics

$N_{total} = 541$: $N_{con} = 226$, $N_{lib} = 265$, $N_{mod} = 50$

$N_{final} = 491$

- **Political ideology:** 46.03% conservative, 53.97% liberal
- **Age:** $Mean_{age} = 43.23$ (range: 21-78)
- **Gender:** 41.77% women, 47.87% men, 0.37% non-binary folks, 0.74% preferred not to answer
- **Race:** 75.05% White, 5.36% Black, 2.59% Hispanic, 5.91% Asian

Descriptives

Summary

	Mean	SE	Min	Max	Median
SciCuriosity	24.73	0.26	9	44	25
RPM	5.64	0.07	1	10	6
ConArctic	-1.43	0.06	-3	3	-2
ConTemp	-1.69	0.05	-3	3	-2
LibOzone	-0.26	0.06	-3	3	-1
LibAir	-0.82	0.07	-3	3	-1
ConFillIce	-2.10	0.05	-3	3	-2
FillBacteria	-0.27	0.06	-3	3	0
FillQuake	0.31	0.02	0	1	0

Correlations

	Con	SciCur	RPM	ConArctic	ConTemp	LibOzone	LibAirQual	ConFillCO2	ConFillIce
ConFillIce	0.24	–0.04	–0.09	0.48	0.51	–0.02	0.07	0.52	1
ConFillCO2	0.18	–0.08	–0.07	0.32	0.55	–0.14	–0.04	1	
LibAirQual	–0.02	–0.08	–0.08	0.05	0	0.44	1		
LibOzone	–0.05	0.06	–0.05	0.05	–0.08	1			
ConTemp	0.31	–0.1	–0.07	0.46	1				
ConArctic	0.28	–0.01	–0.08	1					
RPM	–0.08	0.11	1						
SciCur	–0.12	1							
Con	1								

p values

- 0.1 > p > 0.05
- 0.05 > p > 0.01
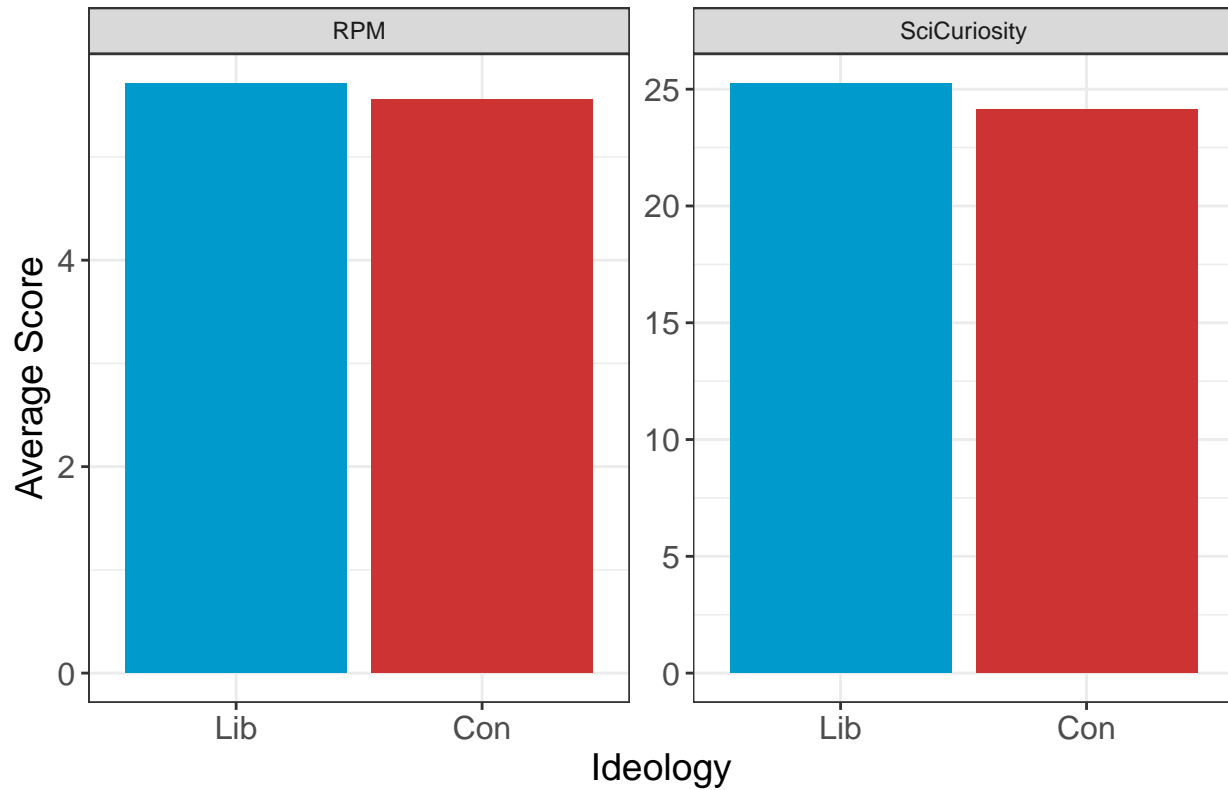- 0.01 > p > 0.001
- p > 0.001
- ignore :~)

Conservatism (Con): Extremely liberal (1) to Extremely conservative (7).

Science curiosity and RPM

Grouped by ideology

	Conservative				Liberal			
	Mean	SE	Min	Max	Mean	SE	Min	Max
SciCuriosity	24.12	0.38	9	43	25.25	0.35	9	44
RPM	5.55	0.10	1	10	5.71	0.10	1	10

Average Cognitive Ability and Science Curiosity

Motivated reasoning items

Grouped by ideology

	Conservative				Liberal			
	Mean	SE	Min	Max	Mean	SE	Min	Max
ConArctic	-1.07	0.09	-3	3	-1.73	0.07	-3	3
ConTemp	-1.37	0.08	-3	3	-1.97	0.06	-3	2
LibOzone	-0.32	0.09	-3	3	-0.21	0.09	-3	3
LibAir	-0.85	0.10	-3	3	-0.81	0.10	-3	3
ConFillIce	-1.83	0.09	-3	3	-2.33	0.06	-3	3
FillBacteria	-0.16	0.08	-3	3	-0.35	0.08	-3	3
FillQuake	0.29	0.03	0	1	0.33	0.03	0	1

Average Scores on Motivated Reasoning Items

Higher scores indicate more endpoint bias.
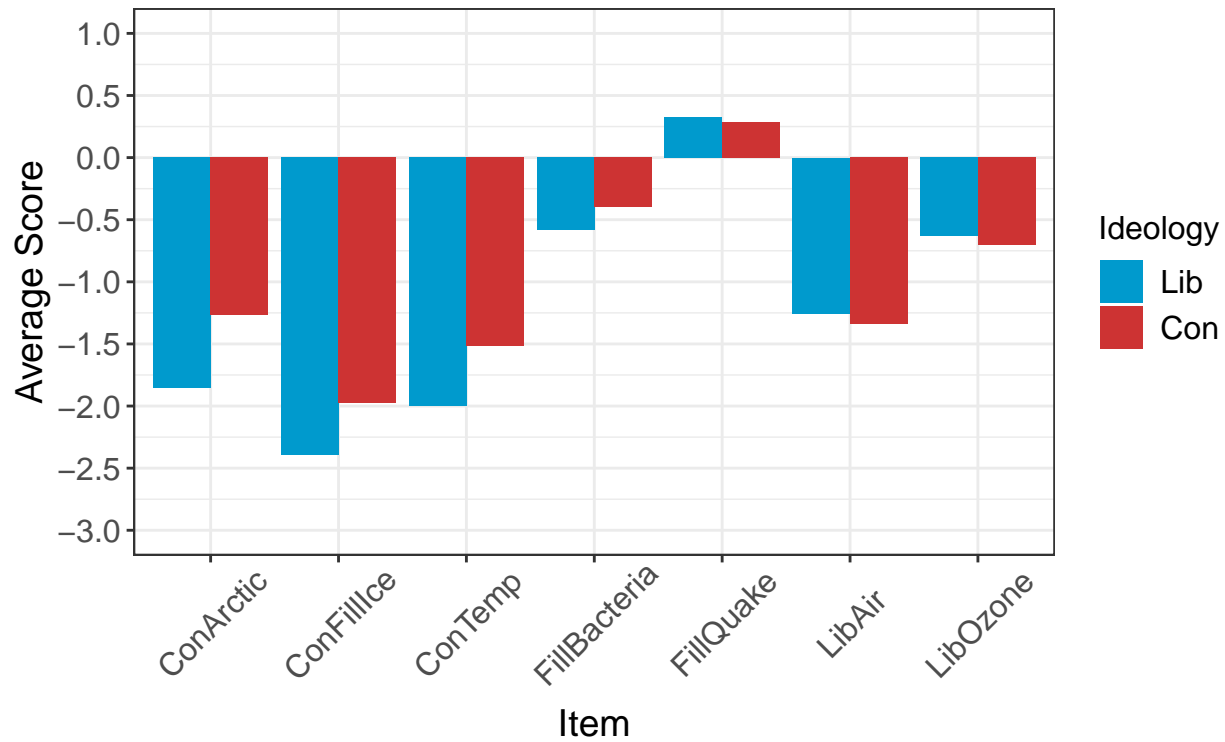
"3-way int." means

	SciCur	Conservative				Lib1_M	Lib1_SE	Lib2_M	Liberal
		Con1_M	Con1_SE	Con2_M	Con2_SE				
Con	Avg	-1.14	0.10	-1.37	0.09	-0.33	0.10	-0.88	
Con	High	-0.80	0.42	-1.70	0.26	-0.30	0.40	-1.20	
Con	Low	-0.23	0.34	-1.08	0.24	-0.08	0.35	0.00	
Lib	Avg	-1.77	0.08	-1.98	0.06	-0.23	0.09	-0.84	
Lib	High	-1.30	0.36	-2.05	0.14	0.15	0.36	-0.75	
Lib	Low	-1.64	0.27	-1.71	0.34	-0.43	0.39	-0.29	

Note:

makecell[l]* M = mean, SE = standard error * Item names: Con1 = arctic sea ice, Con2 = global temperature index, Lib

Conservative #1: Arctic
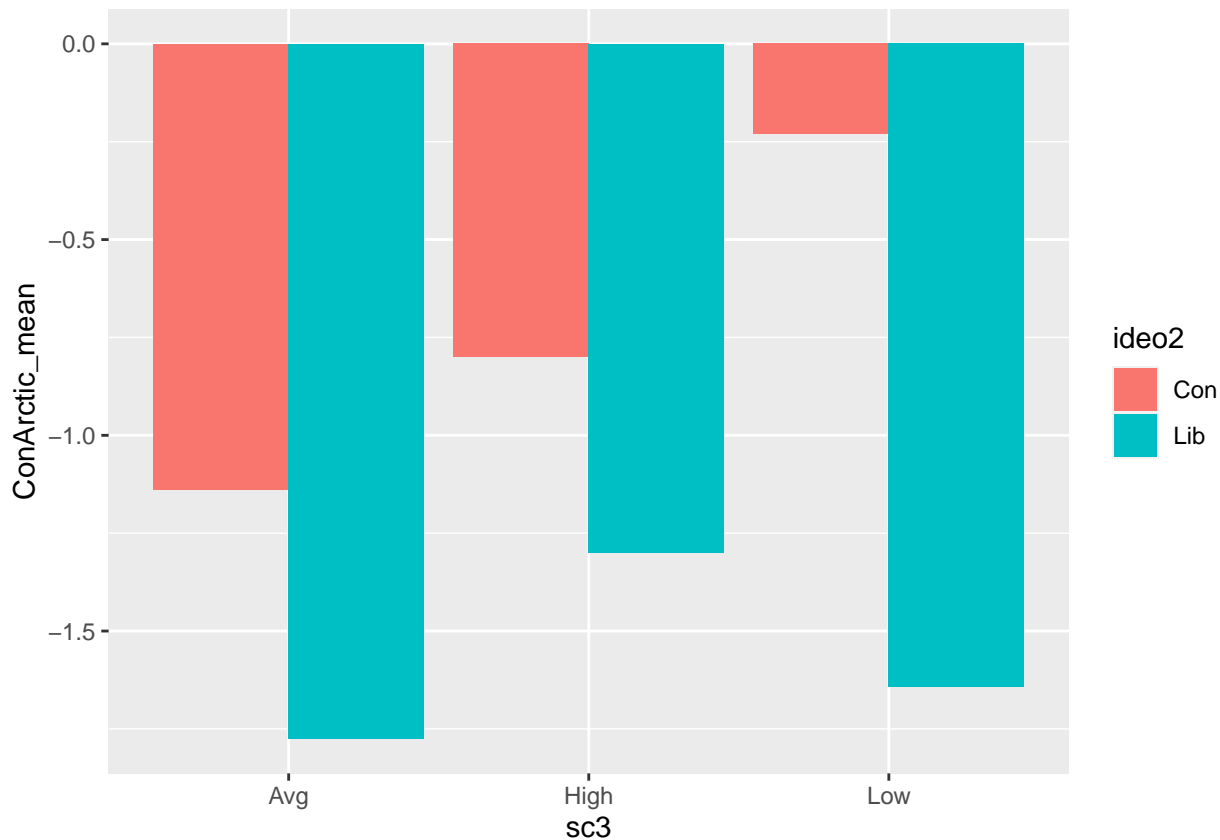

```
arcmod1 <- lm(ConArctic ~ 1, data = dfd2_lc)
summary(arcmod1)
```

```
##
## Call:
## lm(formula = ConArctic ~ 1, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.5723 -0.5723 -0.5723  0.4277  4.4277
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -1.42770    0.05952  -23.99   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.319 on 490 degrees of freedom
```

```
arcmod2 <- lm(ConArctic ~ rav_scoredz, data = dfd2_lc)
summary(arcmod2)
```

```
##
```

```
## Call:
## lm(formula = ConArctic ~ rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.8764 -0.6798 -0.4831  0.4513  4.3858
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -1.42549    0.05940 -23.997   <2e-16 ***
## rav_scoredz -0.10473    0.05993  -1.748   0.0811 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.316 on 489 degrees of freedom
## Multiple R-squared:  0.006207,   Adjusted R-squared:  0.004175
## F-statistic: 3.054 on 1 and 489 DF,  p-value: 0.08115
```

```
anova(arcmod1, arcmod2)
```

```
## Analysis of Variance Table
##
## Model 1: ConArctic ~ 1
## Model 2: ConArctic ~ rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F Pr(>F)
## 1    490 852.18
## 2    489 846.89  1    5.2899 3.0544 0.08115 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
arcmod3 <- lm(ConArctic ~ sc_scoredz + rav_scoredz, data = dfd2_lc)
summary(arcmod3)
```

```
##
## Call:
## lm(formula = ConArctic ~ sc_scoredz + rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.8788 -0.6782 -0.4836  0.4514  4.3839
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -1.425486   0.059466 -23.972   <2e-16 ***
## sc_scoredz  -0.002092   0.061643  -0.034   0.9729
## rav_scoredz -0.104508   0.060348  -1.732   0.0839 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.317 on 488 degrees of freedom
## Multiple R-squared:  0.00621,    Adjusted R-squared:  0.002137
## F-statistic: 1.525 on 2 and 488 DF,  p-value: 0.2187
```

```
anova(arcmod1, arcmod3)
```

```
## Analysis of Variance Table
##
## Model 1: ConArctic ~ 1
## Model 2: ConArctic ~ sc_scoredz + rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F Pr(>F)
## 1    490 852.18
## 2    488 846.89  2    5.2919 1.5247 0.2187
```

```
arcmod4 <- lm(ConArctic ~ ArcticCong + sc_scoredz + rav_scoredz, data = dfd2_lc)
summary(arcmod4)
```

```
##
## Call:
## lm(formula = ConArctic ~ ArcticCong + sc_scoredz + rav_scoredz,
##     data = dfd2_lc)
##
## Residuals:
##     Min     1Q  Median     3Q     Max
## -2.1985 -0.9416 -0.2329  0.6405  4.5164
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -1.72874    0.07874 -21.954  < 2e-16 ***
## ArcticCong   0.65778    0.11632   5.655 2.66e-08 ***
## sc_scoredz   0.02956    0.06004   0.492    0.623
## rav_scoredz -0.09122    0.05857  -1.558    0.120
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.277 on 487 degrees of freedom
## Multiple R-squared:  0.06745,    Adjusted R-squared:  0.0617
## F-statistic: 11.74 on 3 and 487 DF,  p-value: 1.942e-07
```

```
anova(arcmod1, arcmod4)
```

```
## Analysis of Variance Table
##
## Model 1: ConArctic ~ 1
## Model 2: ConArctic ~ ArcticCong + sc_scoredz + rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    490 852.18
## 2    487 794.71  3    57.476 11.741 1.942e-07 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Conservative #2: Temp
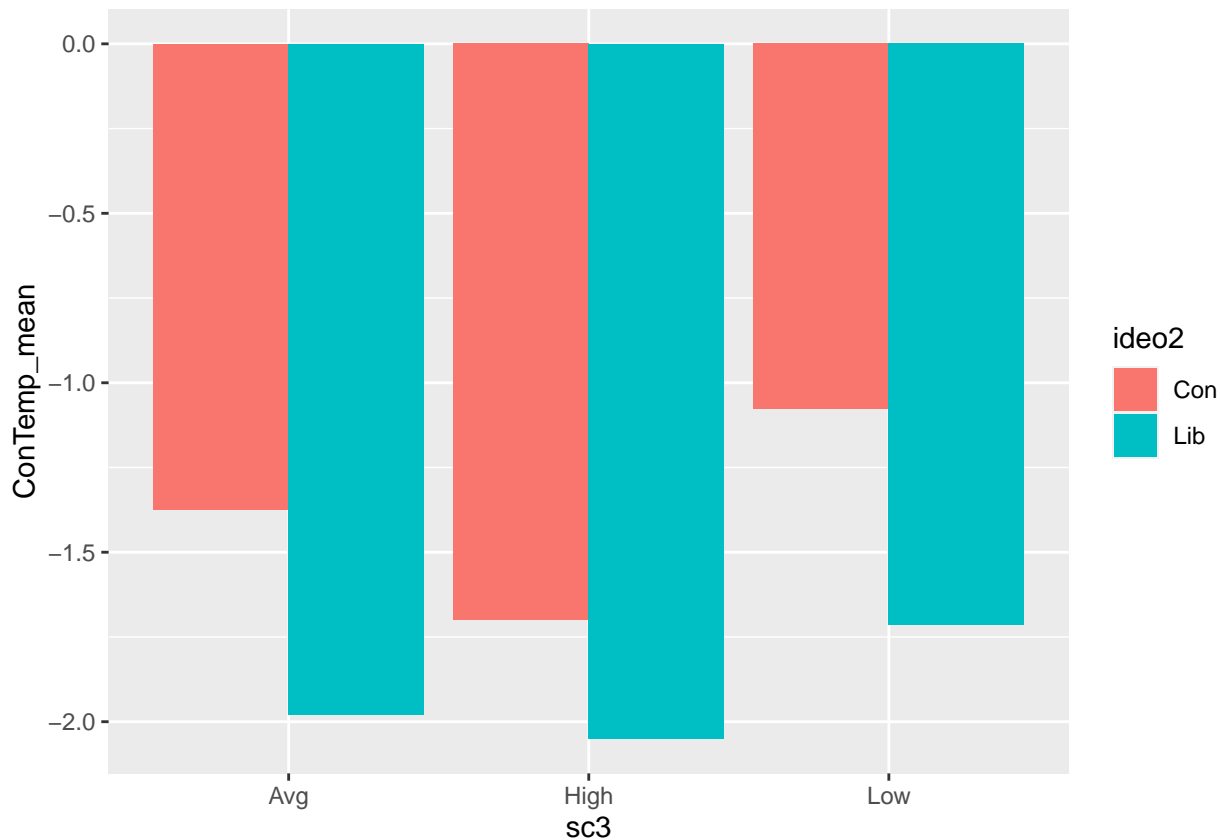

```
tempmod1 <- lm(ConTemp ~ 1, data = dfd2_lc)
summary(tempmod1)
```

```
##
## Call:
## lm(formula = ConTemp ~ 1, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.3055 -0.3055 -0.3055  0.6945  4.6945
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -1.69450    0.05126  -33.06   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.136 on 490 degrees of freedom
```

```
tempmod2 <- lm(ConTemp ~ rav_scoredz, data = dfd2_lc)
summary(tempmod2)
```

```
##
```

```
## Call:
## lm(formula = ConTemp ~ rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.5464 -0.4425 -0.2868  0.6613  4.6094
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -1.69276    0.05119 -33.069   <2e-16 ***
## rav_scoredz -0.08296    0.05164  -1.607    0.109
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.134 on 489 degrees of freedom
## Multiple R-squared:  0.00525,    Adjusted R-squared:  0.003216
## F-statistic: 2.581 on 1 and 489 DF,  p-value: 0.1088
```

```
anova(tempmod1, tempmod2)
```

```
## Analysis of Variance Table
##
## Model 1: ConTemp ~ 1
## Model 2: ConTemp ~ rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F Pr(>F)
## 1    490 632.18
## 2    489 628.86  1    3.3192 2.581 0.1088
```

```
tempmod3 <- lm(ConTemp ~ sc_scoredz + rav_scoredz, data = dfd2_lc)
summary(tempmod3)
```

```
##
## Call:
## lm(formula = ConTemp ~ sc_scoredz + rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -1.6735 -0.4882 -0.2660  0.6194  4.6819
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -1.69229    0.05102 -33.172   <2e-16 ***
## sc_scoredz  -0.11015    0.05288  -2.083   0.0378 *
## rav_scoredz -0.07119    0.05177  -1.375   0.1698
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.13 on 488 degrees of freedom
## Multiple R-squared:  0.01402,    Adjusted R-squared:  0.009974
## F-statistic: 3.468 on 2 and 488 DF,  p-value: 0.03194
```

```
anova(tempmod1, tempmod3)
```

```
## Analysis of Variance Table
##
## Model 1: ConTemp ~ 1
## Model 2: ConTemp ~ sc_scoredz + rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F  Pr(>F)
## 1    490 632.18
## 2    488 623.32  2    8.8601 3.4683 0.03194 *
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
tempmod4 <- lm(ConTemp ~ TempCong + sc_scoredz + rav_scoredz, data = dfd2_lc)
summary(tempmod4)
```

```
##
## Call:
## lm(formula = ConTemp ~ TempCong + sc_scoredz + rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min     1Q Median     3Q    Max
## -1.9102 -0.7079 -0.0741  0.4027  4.3675
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -1.95804    0.06746 -29.025  < 2e-16 ***
## TempCong     0.57643    0.09965   5.785  1.3e-08 ***
## sc_scoredz  -0.08241    0.05143  -1.602    0.110
## rav_scoredz -0.05954    0.05017  -1.187    0.236
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.094 on 487 degrees of freedom
## Multiple R-squared:  0.07741,    Adjusted R-squared:  0.07172
## F-statistic: 13.62 on 3 and 487 DF,  p-value: 1.517e-08
```

```
anova(tempmod3, tempmod4)
```

```
## Analysis of Variance Table
##
## Model 1: ConTemp ~ sc_scoredz + rav_scoredz
## Model 2: ConTemp ~ TempCong + sc_scoredz + rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F    Pr(>F)
## 1    488 623.32
## 2    487 583.24  1    40.075 33.462 1.301e-08 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

Liberal #1: Ozone
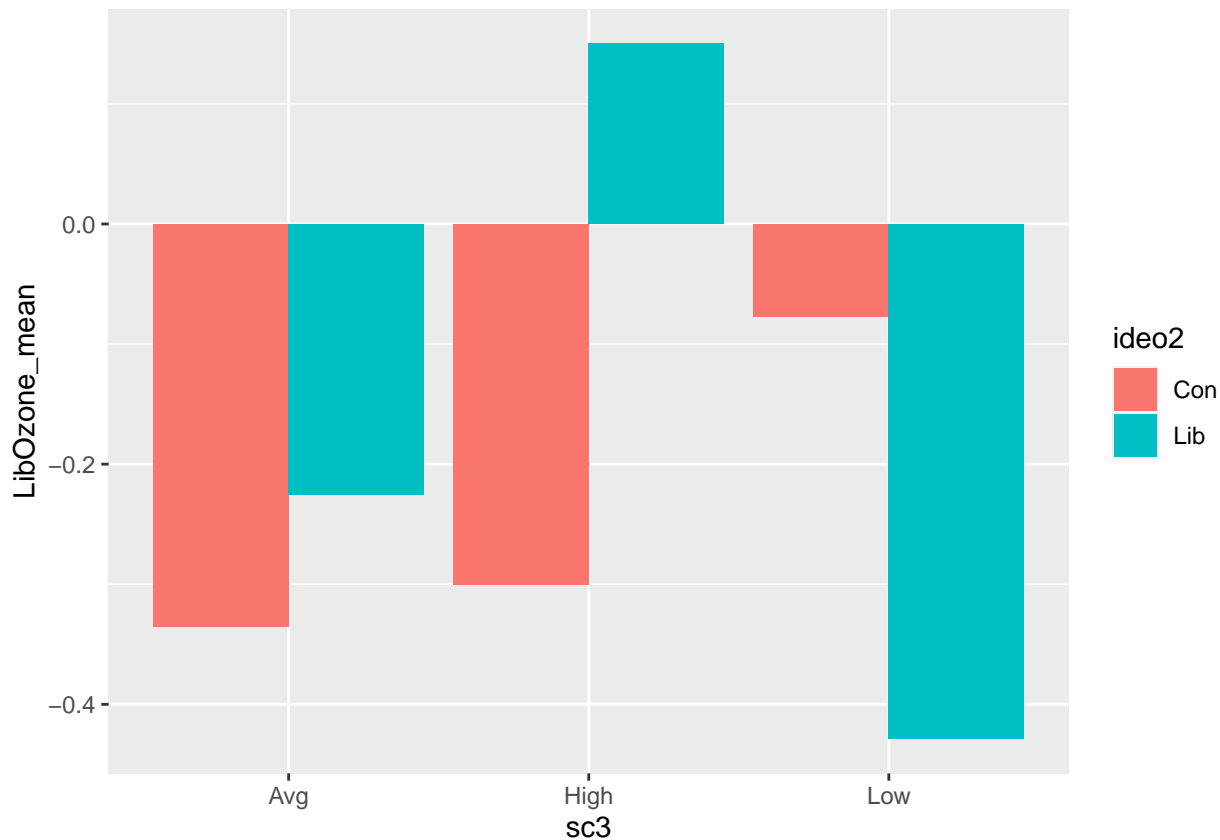

```
ozmod1 <- lm(LibOzone ~ 1, data = dfd2_lc)
summary(ozmod1)
```

```
##
## Call:
## lm(formula = LibOzone ~ 1, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.7413 -0.7413 -0.7413  1.2587  3.2587
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.25866    0.06383  -4.052 5.89e-05 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.414 on 490 degrees of freedom
```

```
ozmod2 <- lm(LibOzone ~ rav_scoredz, data = dfd2_lc)
summary(ozmod2)
```

```
##
```

```
## Call:
## lm(formula = LibOzone ~ rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.8974 -0.7688 -0.6401  1.2312  3.3599
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.25721    0.06383  -4.029 6.48e-05 ***
## rav_scoredz -0.06850    0.06439  -1.064    0.288
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.414 on 489 degrees of freedom
## Multiple R-squared:  0.002309,   Adjusted R-squared:  0.0002684
## F-statistic: 1.132 on 1 and 489 DF,  p-value: 0.288
```

```
anova(ozmod1, ozmod2)
```

```
## Analysis of Variance Table
##
## Model 1: LibOzone ~ 1
## Model 2: LibOzone ~ rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F Pr(>F)
## 1    490 980.15
## 2    489 977.89  1    2.2628 1.1315  0.288
```

```
ozmod3 <- lm(LibOzone ~ sc_scoredz + rav_scoredz, data = dfd2_lc)
summary(ozmod3)
```

```
##
## Call:
## lm(formula = LibOzone ~ sc_scoredz + rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.9220 -0.8104 -0.6018  1.2041  3.4952
##
## Coefficients:
##              Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.25761    0.06376  -4.040 6.21e-05 ***
## sc_scoredz   0.09501    0.06610   1.437    0.151
## rav_scoredz -0.07865    0.06471  -1.215    0.225
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.413 on 488 degrees of freedom
## Multiple R-squared:  0.006514,   Adjusted R-squared:  0.002443
## F-statistic:   1.6 on 2 and 488 DF,  p-value: 0.203
```

```
anova(ozmod1, ozmod3)
```

```
## Analysis of Variance Table
##
## Model 1: LibOzone ~ 1
## Model 2: LibOzone ~ sc_scoredz + rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F Pr(>F)
## 1    490 980.15
## 2    488 973.77  2     6.385 1.5999  0.203
```

```
ozmod4 <- lm(LibOzone ~ OzoneCong + sc_scoredz + rav_scoredz, data = dfd2_lc)
summary(ozmod4)
```

```
##
## Call:
## lm(formula = LibOzone ~ OzoneCong + sc_scoredz + rav_scoredz,
##     data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.8704 -0.8270 -0.5915  1.1704  3.4375
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.31255    0.09423  -3.317 0.000978 ***
## OzoneCong    0.10193    0.12868   0.792 0.428669
## sc_scoredz   0.09010    0.06641   1.357 0.175519
## rav_scoredz -0.08071    0.06479  -1.246 0.213432
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.413 on 487 degrees of freedom
## Multiple R-squared:  0.007793,   Adjusted R-squared:  0.001681
## F-statistic: 1.275 on 3 and 487 DF,  p-value: 0.2823
```

```
anova(ozmod1, ozmod4)
```

```
## Analysis of Variance Table
##
## Model 1: LibOzone ~ 1
## Model 2: LibOzone ~ OzoneCong + sc_scoredz + rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F Pr(>F)
## 1    490 980.15
## 2    487 972.51  3    7.6381 1.275 0.2823
```

Liberal #2: Air Quality
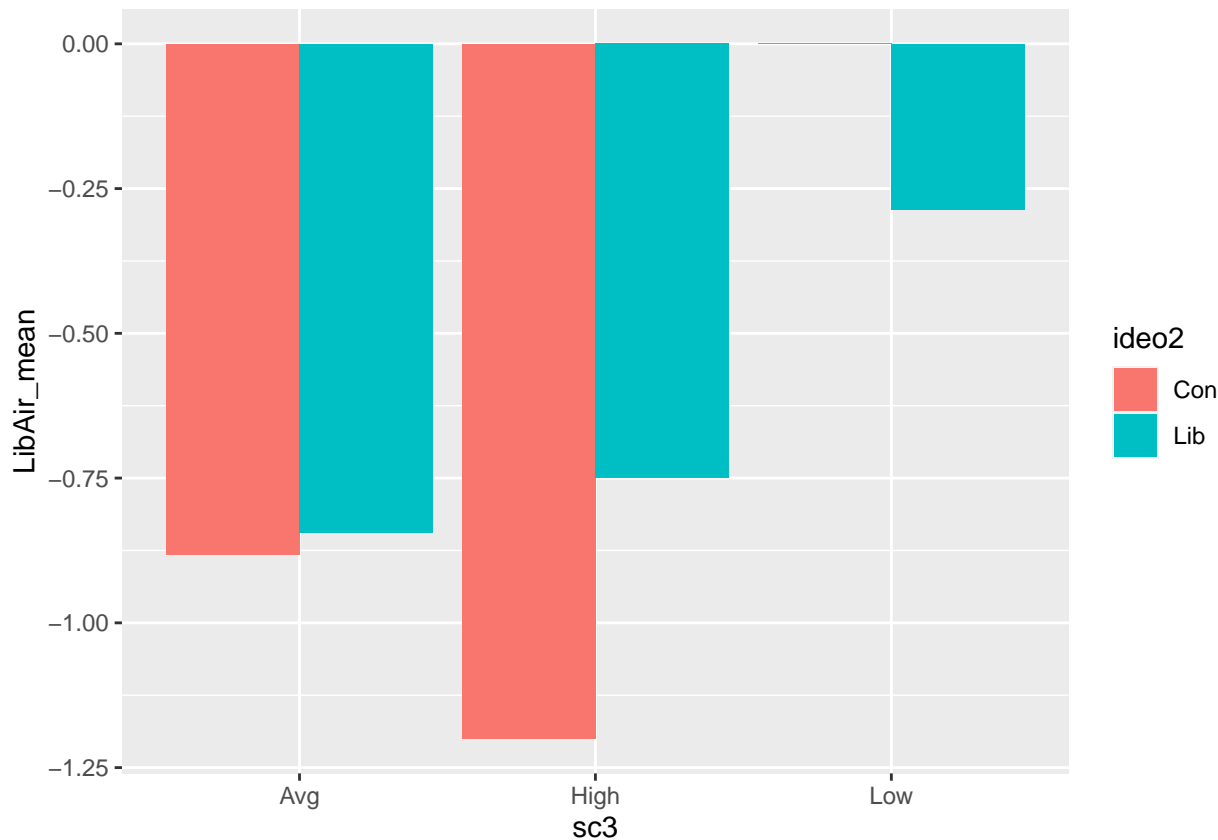

```
airmod1 <- lm(LibAir ~ 1, data = dfd2_lc)
summary(airmod1)
```

```
##
## Call:
## lm(formula = LibAir ~ 1, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.1752 -1.1752 -0.1752  0.8248  3.8248
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.82485    0.07176  -11.49   <2e-16 ***
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.59 on 490 degrees of freedom
```

```
airmod2 <- lm(LibAir ~ rav_scoredz, data = dfd2_lc)
summary(airmod2)
```

```
##
```

```
## Call:
## lm(formula = LibAir ~ rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.5557 -1.1456 -0.3096  0.9365  4.0185
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.82209    0.07161 -11.480   <2e-16 ***
## rav_scoredz -0.13107    0.07224  -1.814   0.0702 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.586 on 489 degrees of freedom
## Multiple R-squared:  0.006687,   Adjusted R-squared:  0.004656
## F-statistic: 3.292 on 1 and 489 DF,  p-value: 0.07023
```

```
anova(airmod1, airmod2)
```

```
## Analysis of Variance Table
##
## Model 1: LibAir ~ 1
## Model 2: LibAir ~ rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F  Pr(>F)
## 1    490 1238.9
## 2    489 1230.7  1    8.2851 3.2921 0.07023 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
airmod3 <- lm(LibAir ~ sc_scoredz + rav_scoredz, data = dfd2_lc)
summary(airmod3)
```

```
##
## Call:
## lm(formula = LibAir ~ sc_scoredz + rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.6877 -1.1600 -0.3303  1.0284  4.1016
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.82161    0.07151 -11.490   <2e-16 ***
## sc_scoredz  -0.11439    0.07413  -1.543    0.123
## rav_scoredz -0.11884    0.07257  -1.638    0.102
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.584 on 488 degrees of freedom
## Multiple R-squared:  0.01151,    Adjusted R-squared:  0.00746
## F-statistic: 2.841 on 2 and 488 DF,  p-value: 0.05931
```

```
anova(airmod1, airmod3)
```

```
## Analysis of Variance Table
##
## Model 1: LibAir ~ 1
## Model 2: LibAir ~ sc_scoredz + rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F  Pr(>F)
## 1    490 1238.9
## 2    488 1224.7  2    14.261 2.8413 0.05931 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
```

```
airmod4 <- lm(LibAir ~ AirCong + sc_scoredz + rav_scoredz, data = dfd2_lc)
summary(airmod4)
```

```
##
## Call:
## lm(formula = LibAir ~ AirCong + sc_scoredz + rav_scoredz, data = dfd2_lc)
##
## Residuals:
##     Min      1Q  Median      3Q     Max
## -2.6581 -1.1592 -0.3372  1.0363  4.0736
##
## Coefficients:
##             Estimate Std. Error t value Pr(>|t|)
## (Intercept) -0.86049    0.10571  -8.140 3.34e-15 ***
## AirCong      0.07214    0.14436   0.500   0.6175
## sc_scoredz  -0.11786    0.07451  -1.582   0.1143
## rav_scoredz -0.12030    0.07268  -1.655   0.0986 .
## ---
## Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1
##
## Residual standard error: 1.585 on 487 degrees of freedom
## Multiple R-squared:  0.01202,    Adjusted R-squared:  0.005931
## F-statistic: 1.975 on 3 and 487 DF,  p-value: 0.1169
```

```
anova(airmod1, airmod4)
```

```
## Analysis of Variance Table
##
## Model 1: LibAir ~ 1
## Model 2: LibAir ~ AirCong + sc_scoredz + rav_scoredz
##   Res.Df    RSS Df Sum of Sq      F Pr(>F)
## 1    490 1238.9
## 2    487 1224.0  3    14.889 1.9745 0.1169
```