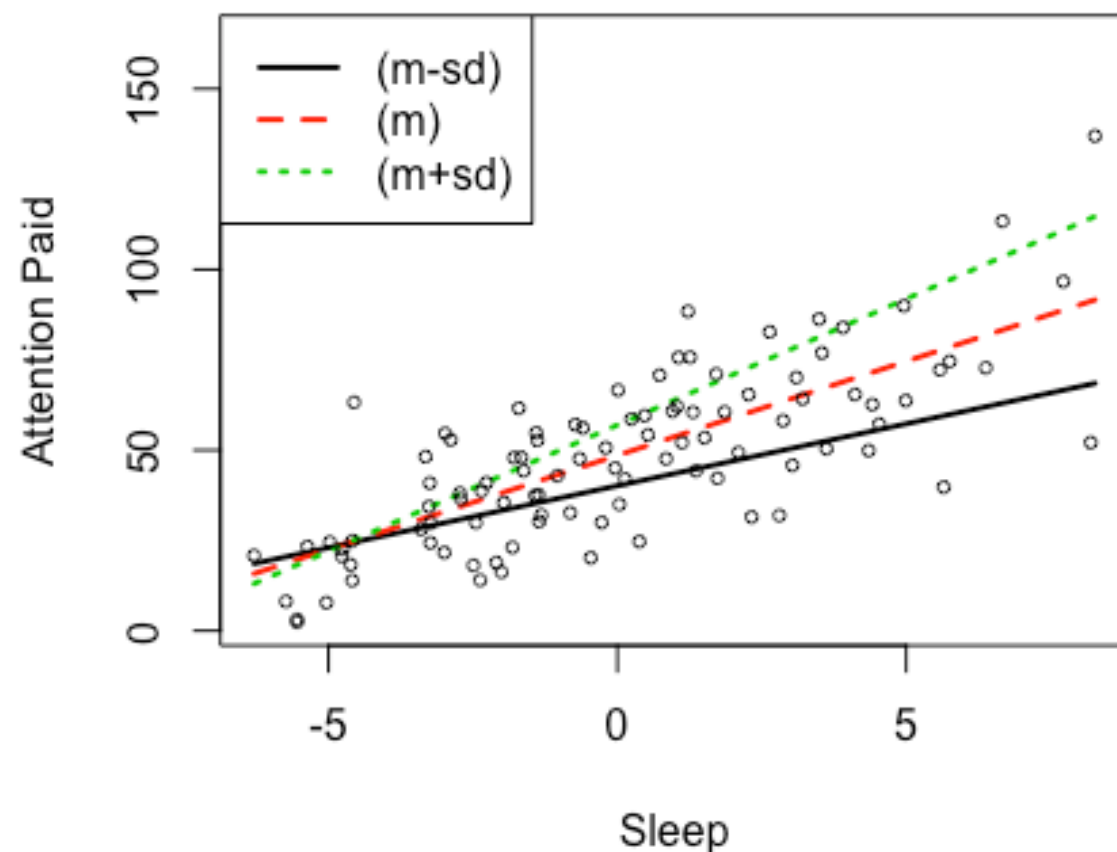


We can use the `plotSlopes` function in the `rockchalk` package to plot the slopes (1 SD above and 1 SD below the mean) of the moderating effect.

The plot below shows that those who drank less coffee (the black line) paid more attention with the more sleep they got last night, but paid less attention overall than average (the red line).

Those who drank more coffee (the green line) paid more attention when they slept more as well and paid more attention than average.

The difference in the slopes for those who drank more or less coffee shows that coffee consumption moderates the relationship between hours of sleep and attention paid.



```
ps <- plotSlopes(fitMod, plotx = "Xc", modx = "Zc", xlab = "Sleep", ylab = "Attention Paid", modxVals = "std.dev")
```

Suppressor Effects

- Normally, we would not consider a variable that does not correlate significantly with our outcome variable as an important predictor and not include it in a regression analysis.
- But sometimes a variable that does not correlate with the outcome appears to have a significant effect on the model when entered in the regression.
- This variable is called a *suppressor* and it improves the regression model by suppressing variance in other predictor variables.
- Although the suppressor variable does not correlate with the output variable it does correlate (often quite strongly) with at least one of the other predictor variables.