Original model

What we actually estimate is given by:

Notice how we only obtain equivalence for a subset of the parameters:

On the other hand,

#-------------------------

Differences in interpretation of and

In the original model, we have that:

We have to be careful with how we interpret because we have an interaction term. As a result, the mean will also depend on . If is small, can be roughly interpreted as how much the mean changes when

Similarly, in the modified model, we have that:

If is small, can be roughly interpreted as how much the mean changes when