Schola-styled Word document

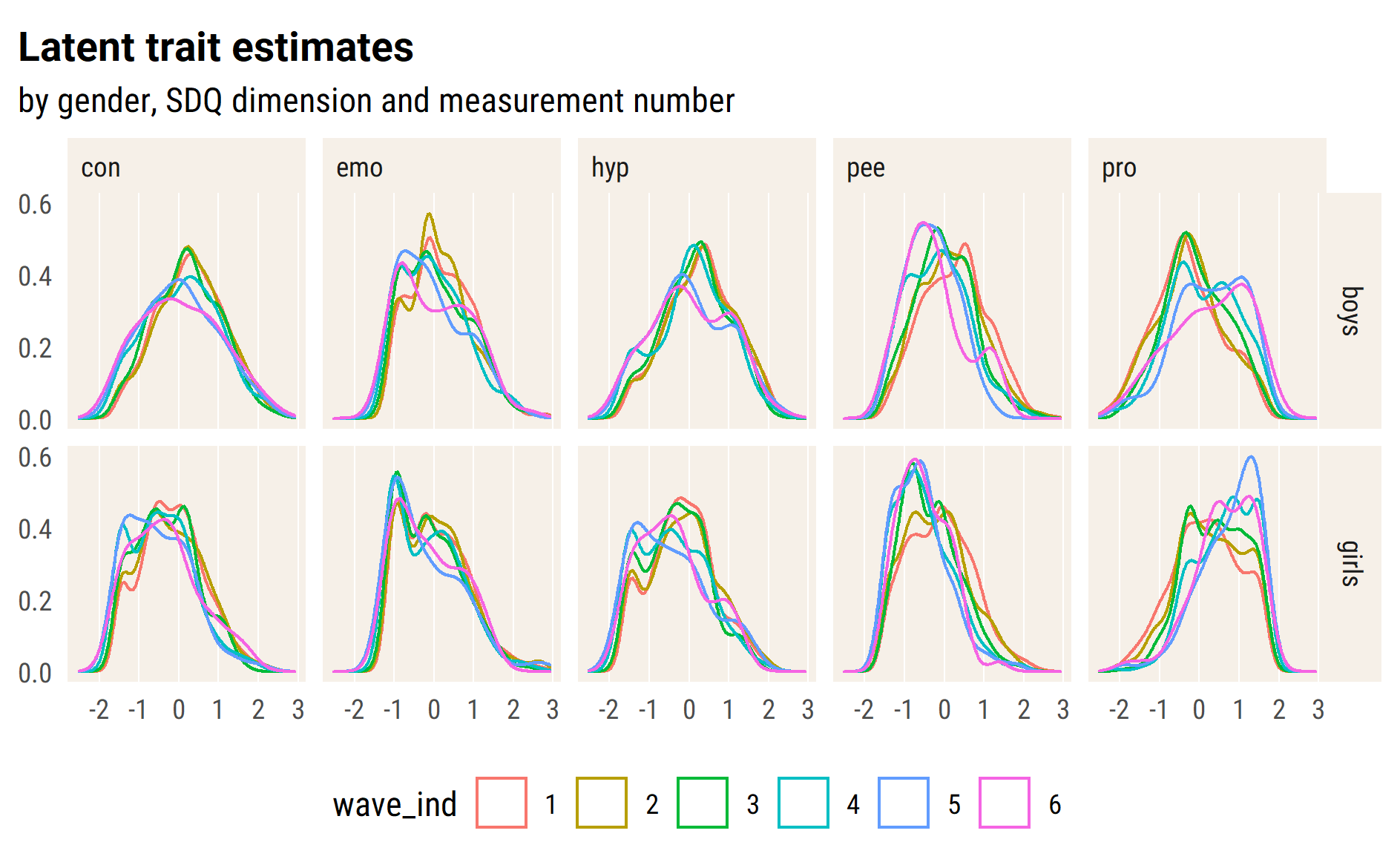
A great one, too

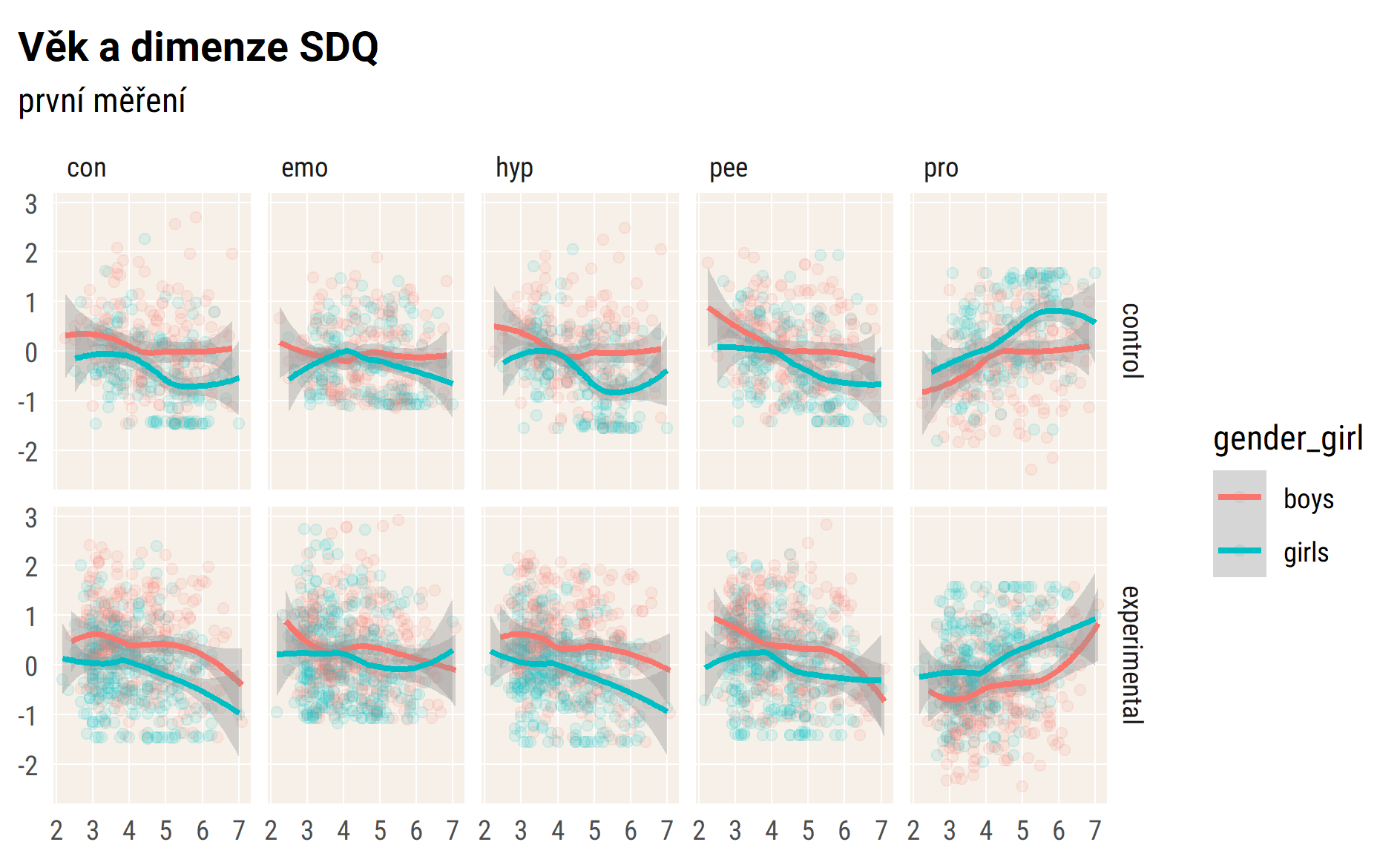
tým Schola Empirica

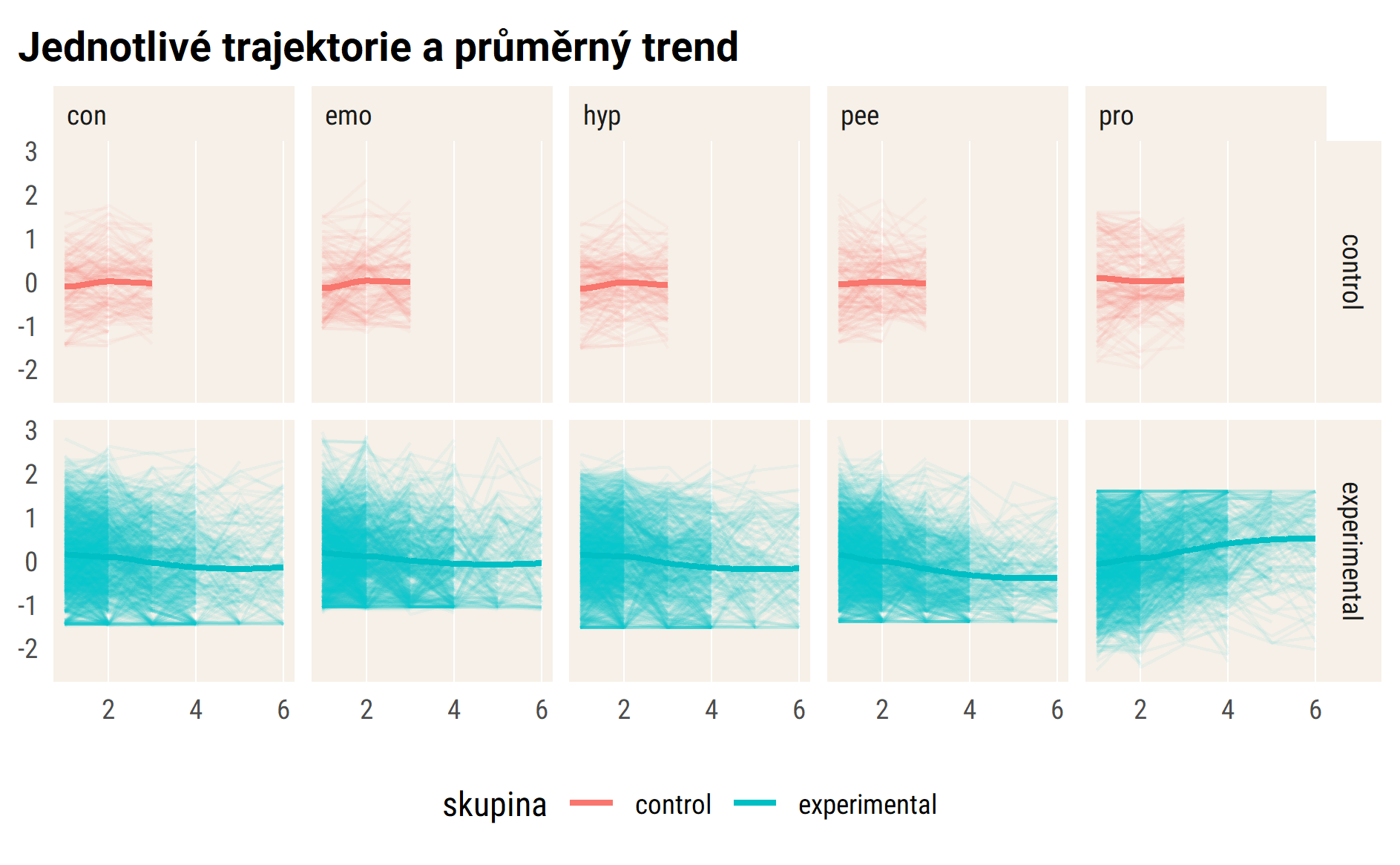
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10. květen 2020

Lorem ipsum abstract







*Test* tabulek – time dependency

| rowname | pro\_1 | pro\_2 | pro\_3 | pro\_4 | pro\_5 | pro\_6 |
| --- | --- | --- | --- | --- | --- | --- |
| pro\_1 |  | .66 | .48 | .48 | .42 | .46 |
| pro\_2 |  |  | .55 | .53 | .56 | .49 |
| pro\_3 |  |  |  | .68 | .50 | .46 |
| pro\_4 |  |  |  |  | .57 | .51 |
| pro\_5 |  |  |  |  |  | .67 |
| pro\_6 |  |  |  |  |  |  |

#> [[1]]  
#>   
#> [[2]]  
#>   
#> [[3]]  
#>   
#> [[4]]  
#>   
#> [[5]]

## Null model

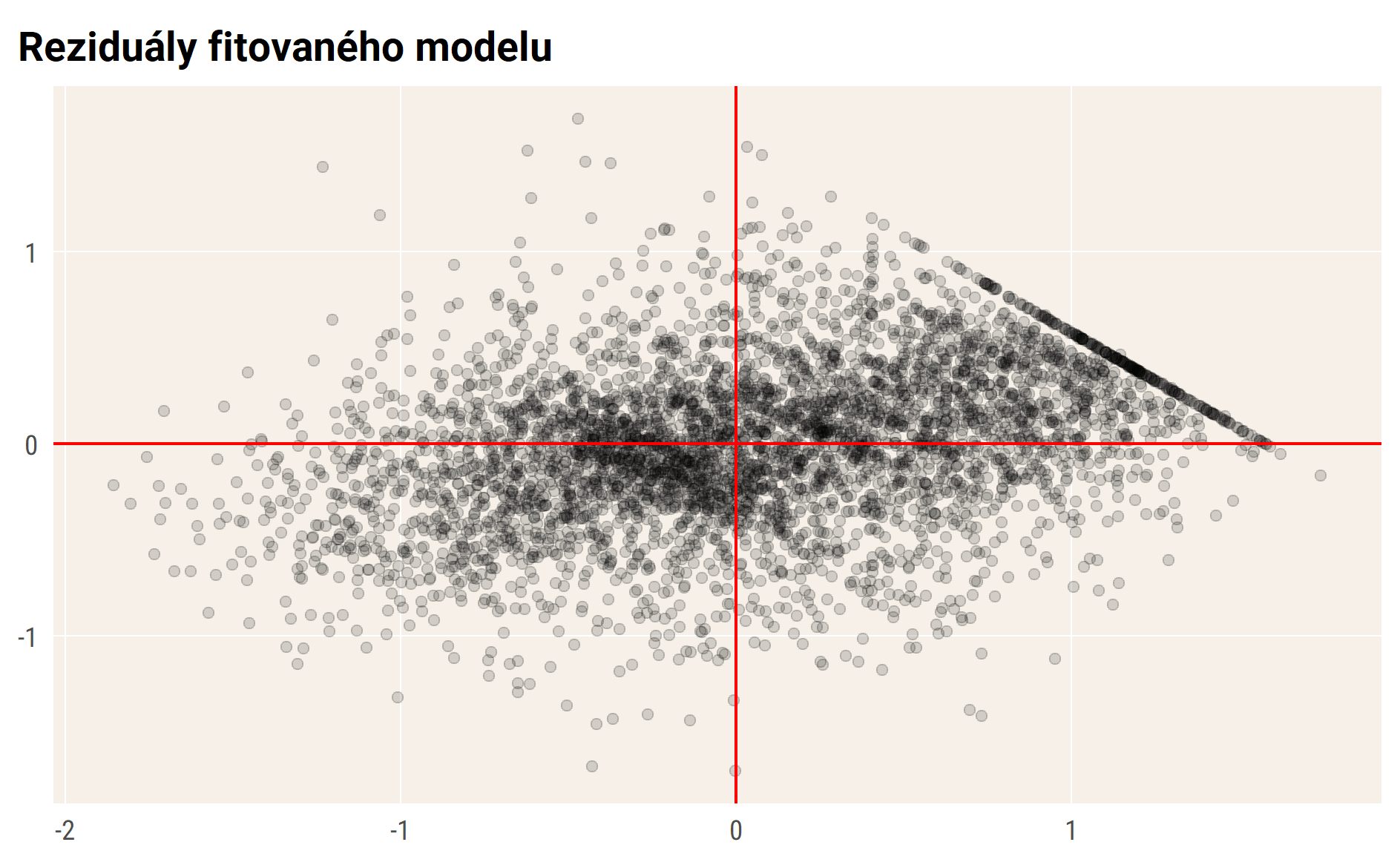
#> Linear mixed model fit by REML. t-tests use Satterthwaite's method ['lmerModLmerTest']  
#> Formula: emo ~ (1 | id\_pupil)  
#> Data: df\_long\_zero  
#>   
#> REML criterion at convergence: 11620.1  
#>   
#> Scaled residuals:   
#> Min 1Q Median 3Q Max   
#> -3.3362 -0.6135 -0.0508 0.5567 3.3581   
#>   
#> Random effects:  
#> Groups Name Variance Std.Dev.  
#> id\_pupil (Intercept) 0.3078 0.5548   
#> Residual 0.3603 0.6003   
#> Number of obs: 5171, groups: id\_pupil, 2045  
#>   
#> Fixed effects:  
#> Estimate Std. Error df t value Pr(>|t|)   
#> (Intercept) 0.05184 0.01533 1930.25353 3.382 0.000733 \*\*\*  
#> ---  
#> Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

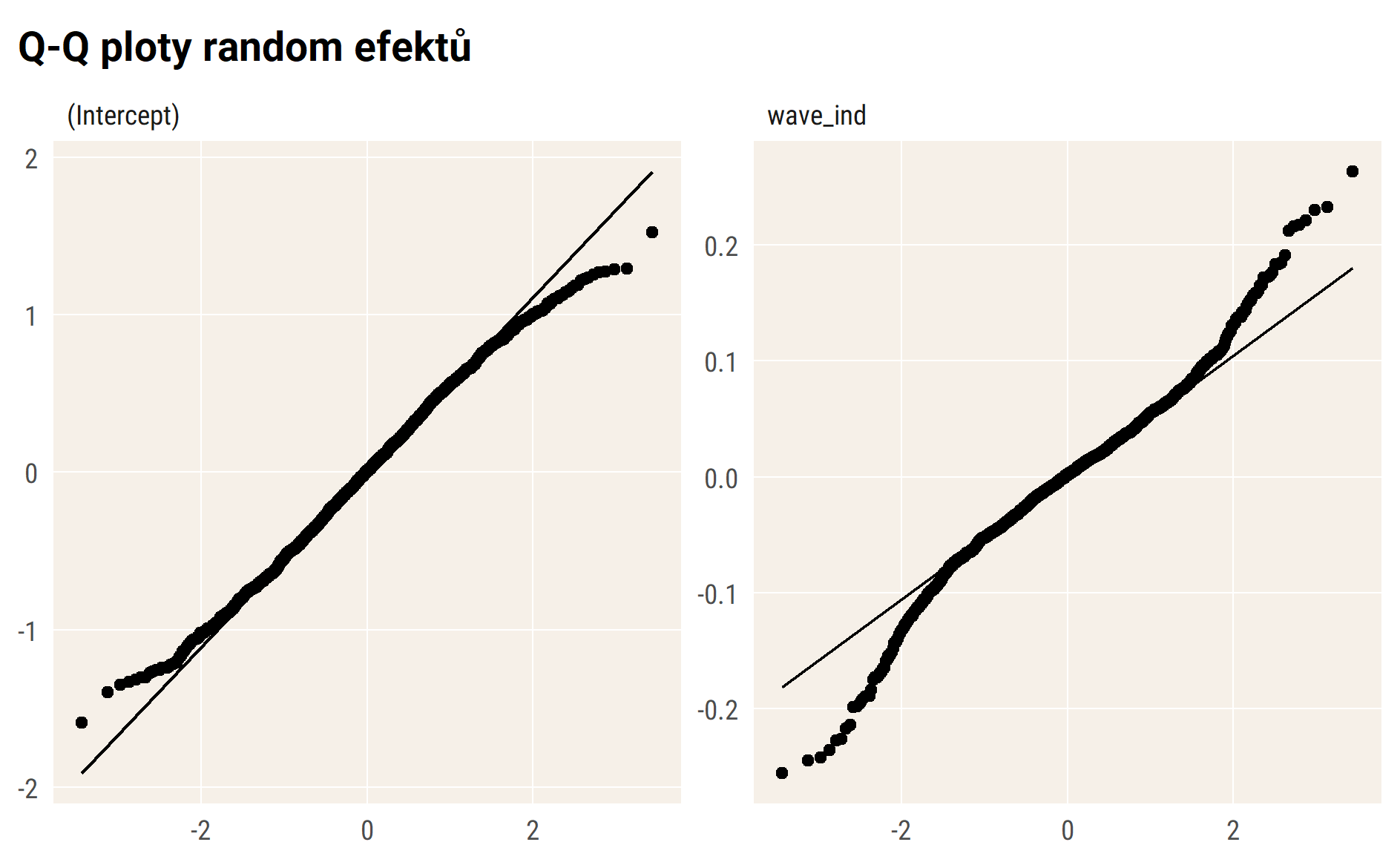
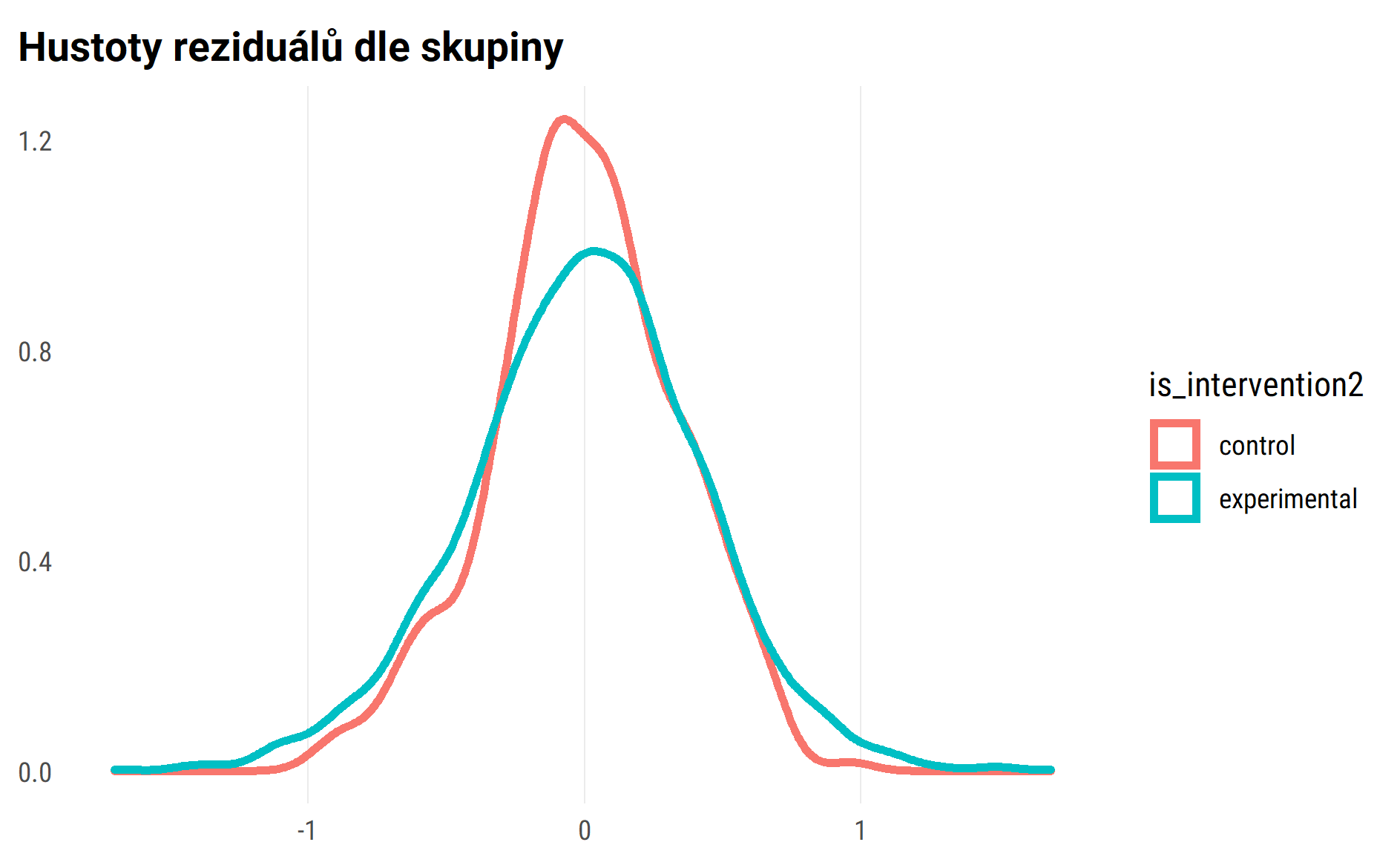
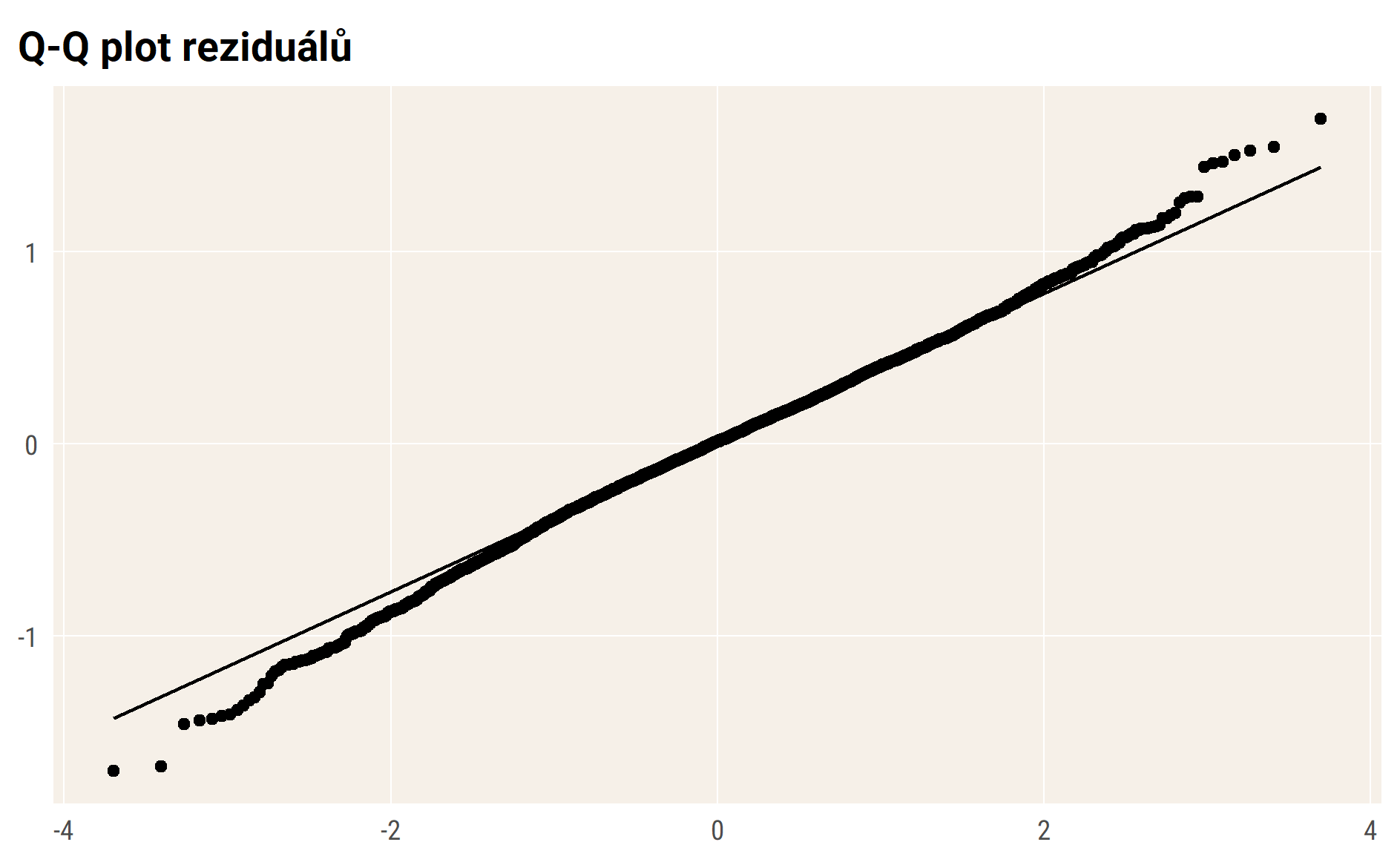
## random intercept + slope

pupils are not yet nested within classes, model fails to converge

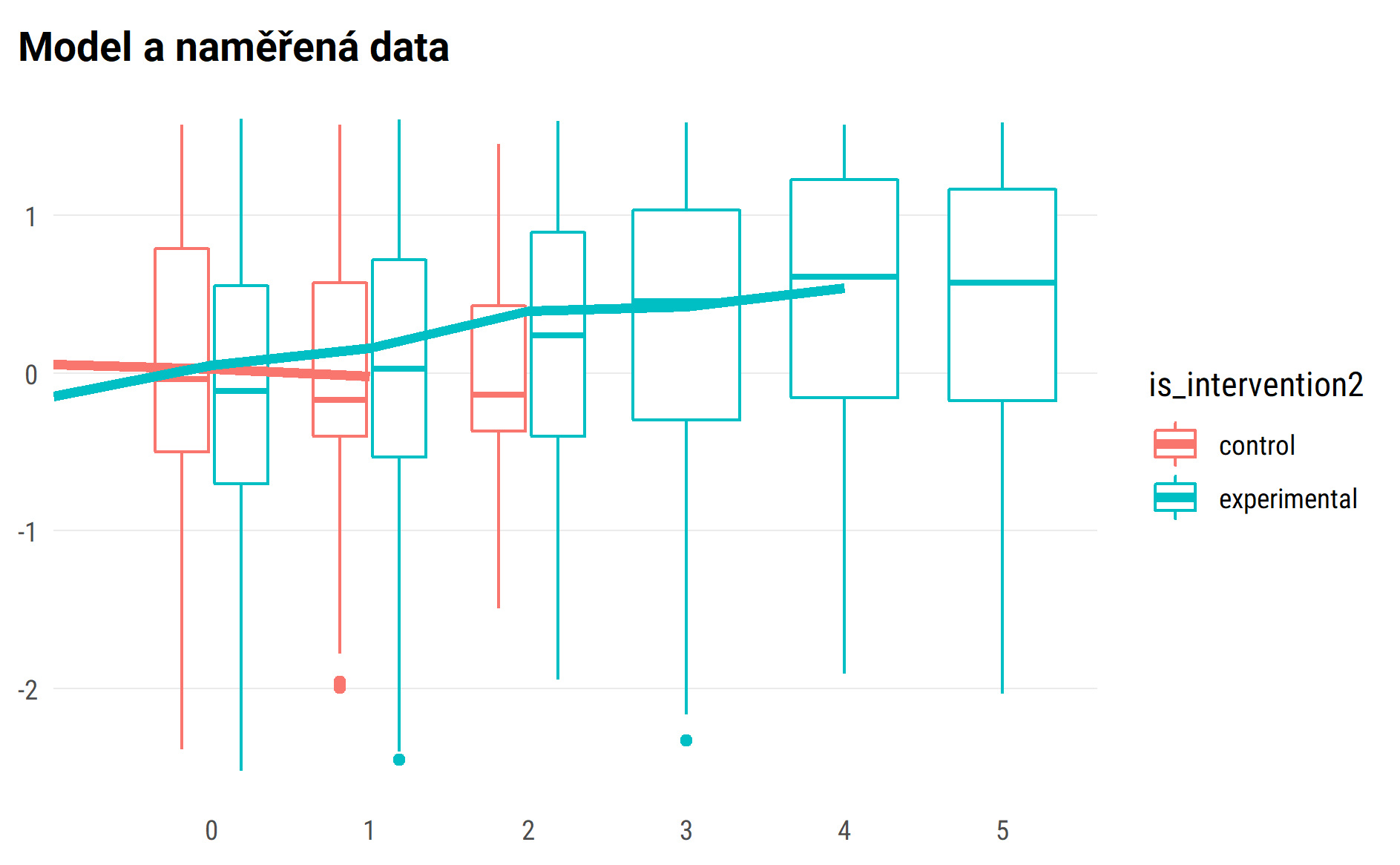
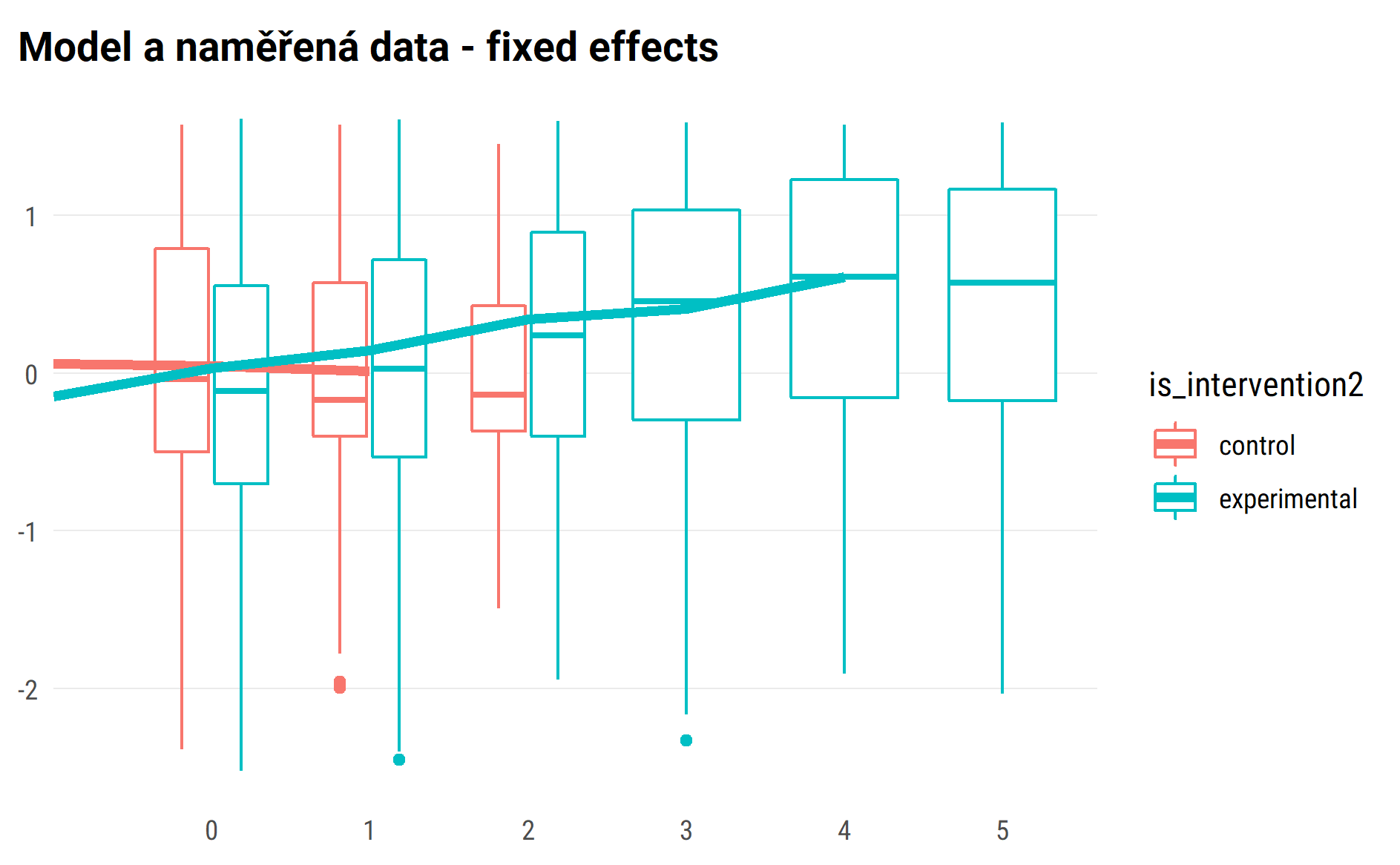
TODO: check id\_class

#> Linear mixed model fit by REML. t-tests use Satterthwaite's method ['lmerModLmerTest']  
#> Formula: pro ~ wave\_ind \* is\_intervention2 + age\_fst\_measur + gender\_girl +   
#> (wave\_ind | id\_pupil)  
#> Data: df\_long\_zero  
#>   
#> REML criterion at convergence: 9638.4  
#>   
#> Scaled residuals:   
#> Min 1Q Median 3Q Max   
#> -3.3437 -0.5035 0.0191 0.5253 3.3180   
#>   
#> Random effects:  
#> Groups Name Variance Std.Dev. Corr   
#> id\_pupil (Intercept) 0.3873 0.6223   
#> wave\_ind 0.0214 0.1463 -0.34  
#> Residual 0.2592 0.5092   
#> Number of obs: 4562, groups: id\_pupil, 1738  
#>   
#> Fixed effects:  
#> Estimate Std. Error df t value Pr(>|t|)   
#> (Intercept) -1.13538 0.08865 1884.41211 -12.807 < 2e-16 \*\*\*  
#> wave\_ind 0.02615 0.03203 3040.12238 0.816 0.41430   
#> is\_intervention2experimental -0.14925 0.04700 1898.60217 -3.175 0.00152 \*\*   
#> age\_fst\_measur 0.20574 0.01656 1752.12434 12.425 < 2e-16 \*\*\*  
#> gender\_girlgirls 0.52653 0.03329 1663.88095 15.814 < 2e-16 \*\*\*  
#> wave\_ind:is\_intervention2experimental 0.14399 0.03327 2838.77281 4.328 0.0000156 \*\*\*  
#> ---  
#> Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1  
#>   
#> Correlation of Fixed Effects:  
#> (Intr) wav\_nd is\_nt2 ag\_fs\_ gndr\_g  
#> wave\_ind -0.240   
#> is\_ntrvntn2 -0.522 0.342   
#> age\_fst\_msr -0.864 0.079 0.121   
#> gndr\_grlgrl -0.206 -0.023 -0.021 0.034   
#> wv\_nd:s\_nt2 0.219 -0.962 -0.380 -0.062 0.023

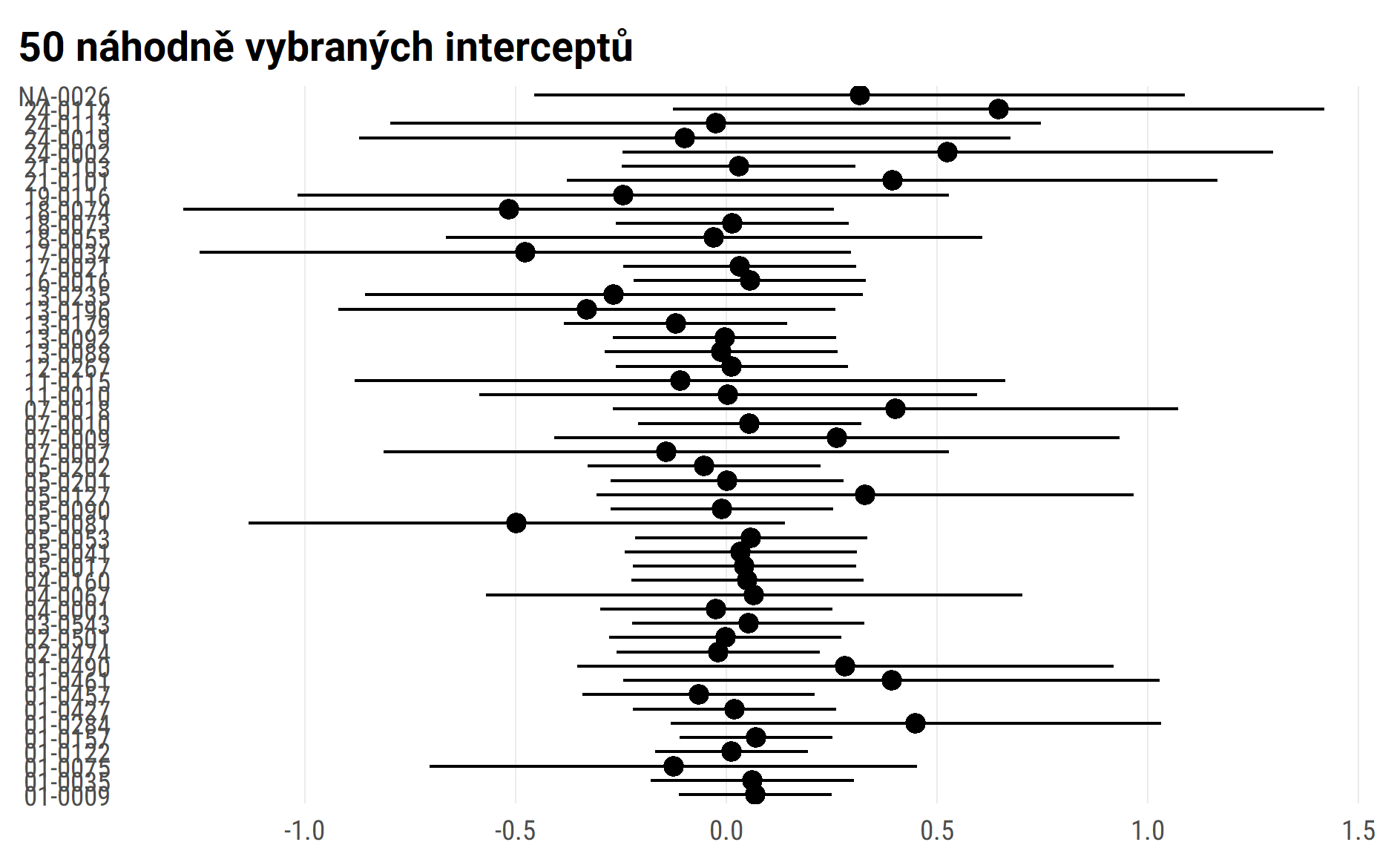




## Vizualizace modelu – průměry



## random effect for sample of 50 pupils



#> $wave\_ind  
#>   
#> # Predicted values of pro  
#> # x = wave\_ind  
#>   
#> x | Predicted | SE | 95% CI  
#> -------------------------------------  
#> 0 | -0.28 | 0.05 | [-0.36, -0.19]  
#> 1 | -0.25 | 0.05 | [-0.34, -0.16]  
#> 2 | -0.22 | 0.06 | [-0.35, -0.10]  
#> 3 | -0.20 | 0.09 | [-0.38, -0.02]  
#> 4 | -0.17 | 0.12 | [-0.41, 0.06]  
#> 5 | -0.15 | 0.15 | [-0.44, 0.15]  
#>   
#> Adjusted for:  
#> \* is\_intervention2 = control  
#> \* age\_fst\_measur = 4.18  
#> \* gender\_girl = boys  
#> \* id\_pupil = 0 (population-level)  
#>   
#>   
#> $is\_intervention2  
#>   
#> # Predicted values of pro  
#> # x = is\_intervention2  
#>   
#> x | Predicted | SE | 95% CI  
#> ------------------------------------------------  
#> control | -0.24 | 0.05 | [-0.34, -0.15]  
#> experimental | -0.22 | 0.03 | [-0.27, -0.17]  
#>   
#> Adjusted for:  
#> \* wave\_ind = 1.23  
#> \* age\_fst\_measur = 4.18  
#> \* gender\_girl = boys  
#> \* id\_pupil = 0 (population-level)  
#>   
#>   
#> $age\_fst\_measur  
#>   
#> # Predicted values of pro  
#> # x = age\_fst\_measur  
#>   
#> x | Predicted | SE | 95% CI  
#> -------------------------------------  
#> 2 | -0.69 | 0.06 | [-0.82, -0.57]  
#> 3 | -0.49 | 0.05 | [-0.59, -0.38]  
#> 4 | -0.28 | 0.05 | [-0.38, -0.18]  
#> 5 | -0.07 | 0.05 | [-0.17, 0.02]  
#> 6 | 0.13 | 0.05 | [ 0.02, 0.24]  
#> 7 | 0.34 | 0.06 | [ 0.21, 0.46]  
#> 8 | 0.54 | 0.08 | [ 0.39, 0.69]  
#>   
#> Adjusted for:  
#> \* wave\_ind = 1.23  
#> \* is\_intervention2 = control  
#> \* gender\_girl = boys  
#> \* id\_pupil = 0 (population-level)  
#>   
#>   
#> $gender\_girl  
#>   
#> # Predicted values of pro  
#> # x = gender\_girl  
#>   
#> x | Predicted | SE | 95% CI  
#> -----------------------------------------  
#> boys | -0.24 | 0.05 | [-0.34, -0.15]  
#> girls | 0.28 | 0.05 | [ 0.19, 0.38]  
#>   
#> Adjusted for:  
#> \* wave\_ind = 1.23  
#> \* is\_intervention2 = control  
#> \* age\_fst\_measur = 4.18  
#> \* id\_pupil = 0 (population-level)  
#>   
#>   
#> attr(,"class")  
#> [1] "ggalleffects" "list"   
#> attr(,"model.name")  
#> [1] "."

{marginal plots draft

