

# **SMI paper**

## **index**

### **snc**

16065.1.2

## **the einleitung**

inspired by the paper [...], (**ref?**), who found evidence for [...] we tried to replicate the pipeline of [...].

Our first draft essay proves their hypothesis [...].

## **background**

### **preliminary**

- embedding into class subject
- [...]

### **literature**

### **hypothesis**

[...]

## **material/methods**

please cf. Schwarz (2026#todo) for the corpus building and evaluation scripts

### **data**

our corpus consists of interview transcripts available in raw text which were tokenised and segmented into 10-unit chunks for further processing, Section .

### **corpus stats**

dataset	group	participants	tokens
1	HC	13	21650
1	SCZ	16	92250

### **computations**

the computation of clip scores was done using HU resources with a python script cf. Nenchev (2026)

## **results**

### **basic descriptive**

first simple descriptive stats insights which are to test for stability...

Table 2: mean clip scores (table) over groups

dataset	group	mean_clip
1	hc	0.2213
1	scz	0.2398
1	DIFF:	-0.0185

## visuals

[...]

raffael script (commit hash!) from ggl-doc: Richter (2026)



Figure 1: clip score density plot

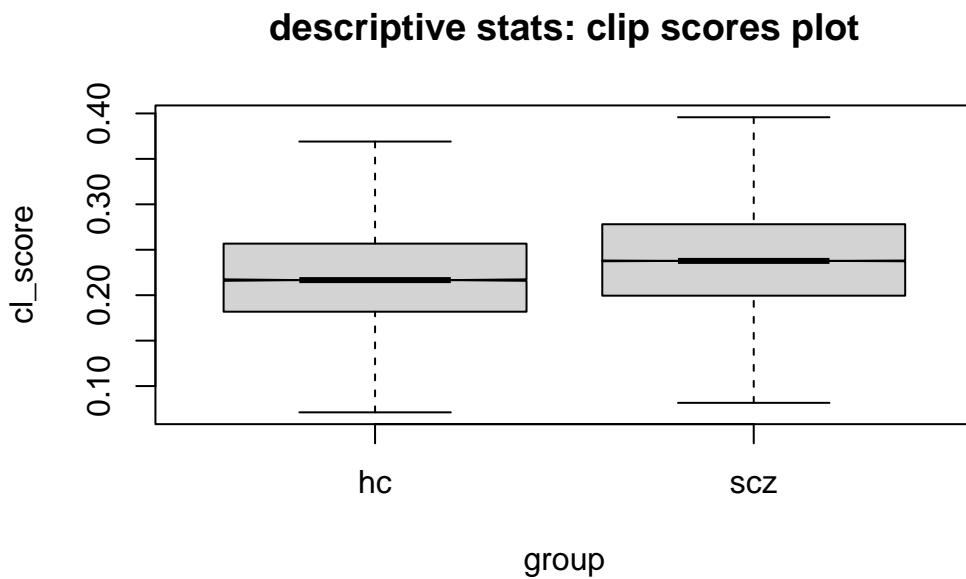


Figure 2: mean clip scores (boxplot) over groups.

### **linear regression**

to prove descriptive results, we compute the stability [...] with a linear regression model using R's `lme4::lmer()` function, cf. Bates et al. (2015). coefficients are printed below [...]

#### **basic (`lm`)**

formula: `clipscore ~ group`

```
Call:
lm(formula = cl_score ~ group, data = dff4)

Residuals:
    Min      1Q  Median      3Q     Max 
-0.21020 -0.04017 -0.00256  0.03779  0.27403 

Coefficients:
            Estimate Std. Error t value Pr(>|t|)    
(Intercept)  0.24500   0.02500  9.800  <2e-16 ***
groupscz    0.01000   0.02500  0.400  0.6938    
---
Signif. codes:  0 ‘***’ 0.001 ‘**’ 0.01 ‘*’ 0.05 ‘.’ 0.1 ‘ ’ 1
```

```

(Intercept) 0.2213234  0.0003823  578.94   <2e-16 ***
groupscz    0.0184706  0.0004248   43.48   <2e-16 ***
---
Signif. codes:  0 '***' 0.001 '**' 0.01 '*' 0.05 '.' 0.1 ' ' 1

Residual standard error: 0.05625 on 113898 degrees of freedom
Multiple R-squared:  0.01633,  Adjusted R-squared:  0.01632
F-statistic:  1891 on 1 and 113898 DF,  p-value: < 2.2e-16

```

### **mixed effects model (lmer)**

formula: clipscore ~ group + (1|TN)+(1|text\_chunk)+ld+fstPPr\_rate < posing random effects for participant and token and fixed effects for type/token ratio (lexical diversity factor) and 1st-person-pronoun rate.

```

Linear mixed model fit by REML. t-tests use Satterthwaite's method [
lmerModLmerTest]
Formula: cl_score ~ group + (1 | TN) + (1 | text_chunk) + ld + fstPPr_rate
Data: dff4

```

REML criterion at convergence: -406293.2

Scaled residuals:

Min	1Q	Median	3Q	Max
-4.7324	-0.5891	-0.0624	0.4691	6.2275

Random effects:

Groups	Name	Variance	Std.Dev.
text_chunk	(Intercept)	1.631e-03	0.040381
TN	(Intercept)	7.633e-05	0.008737
Residual		1.476e-03	0.038419

Number of obs: 113900, groups: text\_chunk, 3653; TN, 29

Fixed effects:

	Estimate	Std. Error	df	t value	Pr(> t )
(Intercept)	0.234962	0.010406	27.942796	22.579	< 2e-16 ***
groupscz	0.023571	0.004146	28.049269	5.685	4.26e-06 ***
ld	-0.026691	0.034733	36.448483	-0.768	0.447
fstPPr_rate	-0.189069	0.122592	24.946504	-1.542	0.136

---

Signif. codes: 0 '\*\*\*' 0.001 '\*\*' 0.01 '\*' 0.05 '.' 0.1 ' ' 1

```

Correlation of Fixed Effects:
      (Intr) grpocz ld
groupcz -0.217
ld        -0.731  0.280
fstPPr_rate -0.696 -0.261  0.105

```

### **helper interpretation, to be tested**

the coefficients interesting for us are

## **discussion**

## **limitations**

## **perspectives**

## **ethics**

## **acknowledgement**

## **references**

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