**Supplement 3: Comparison of agency inferences in three different studies**

**Method**

To gain statistical power, we combined data from the current study with data from previous studies performed in our group.

First, to assess group differences in prime-based agency inferences specifically, we could combine our sample with that of [17] and [18], thereby increasing the sample size to 90 patients and 90 healthy controls. To examine prime-based agency inferences in these studies, a repeated measures ANOVA was performed with Matching (match and mismatch) as within-subjects variable and Group (HC and SZ) as between-subjects factor. Then, the variable Study (3 studies) was added as a between-subjects variable to specifically test its effect on Matching, Group, and the Matching x Group interaction.

 Second, data from the current study and the study by [17] were combined (59 healthy controls and 58 patients) to assess (group)differences between goal-based and prime-based agency inferences. A repeated measures ANOVA with Matching (match and mismatch) and Condition (prime-based and goal-based) as a within subjects variables and Group (HC and SZ) as between-subjects factor was performed. Again, the variable Study (2 studies) was added as between-subjects factor to specifically test potential differences in the Matching x Condition x Group interaction between studies.

**Results**

*Group differences in prime-based agency inferences.*

In the combined sample a significant effect of matching was found, which was different between healthy controls and patients (STable 1). Additionally, although the matching effect did not differ between the studies, group differences in matching effect did (STable 2).

STable 3: Group differences in prime-based agency inferences

|  |  |
| --- | --- |
| Effect | Test results |
| Group MatchingMatching x Group | *F*(1,178)*=*0.04, *p*=0.84, *ηp2*<0.001*F*(1,178)*=*46.29, *p*<0.001, *ηp2*=0.21*F*(1,178)*=*11.64, *p=*0.001, *ηp2*=0.06 |

STable 4: Study comparison of prime-based agency inferences

|  |  |
| --- | --- |
| Effect | Test results |
| StudyGroup x StudyMatching x StudyMatching x Group x Study | *F*(2,174)*=*2.69, *p*=0.07, *ηp2*=0.03*F*(3,174)*=*0.82, *p*=0.49, *ηp2*=0.01*F*(2,174)*=*2.22, *p*=0.11, *ηp2*=0.03*F*(3,174)*=*3.97, *p*=0.009, *ηp2*=0.06 |

*Differences between prime-based and goal-based agency inferences.*

STable 3 shows that the matching effect was significantly different between the goal-based and prime-based condition. Also, group differences in matching effect differ marginally between goal-based and prime-based condition (3-way interaction), indicating larger group differences in prime-based compared with goal-based agency inferences. A marginal difference between studies was found regarding this 3-way interaction, *F*(2,113)=3.02, *p=*0.05, *ηp2*=0.05.

STable 5: Group and condition differences in agency inferences

|  |  |
| --- | --- |
| Effect | Test results |
| GroupMatchingConditionMatching x GroupCondition x GroupMatching x ConditionMatching x Group x Condition | *F*(1,115)*=*2.44, *p*=0.12, *ηp2*=0.02*F*(1,115)*=*14.34, *p<*0.001, *ηp2*=0.11*F*(1,115)*=*249.61, *p*<0.001, *ηp2*=0.69*F*(1,115)*=*0.008 *p*=0.93, *ηp2*<0.001*F*(1,115)*=*7.55, *p*=0.007, *ηp2*=0.06*F*(1,115)*=*97.59, *p*<0.001, *ηp2*=0.46*F*(1,115)*=*3.51, *p*=0.06, *ηp2*=0.03 |

**References**

[17] Renes RA, Vermeulen L, Kahn RS, Aarts H, van Haren NEM. Abnormalities in the establishment of feeling of self-agency in schizophrenia. Schizophr Res 2013;143:50–4. doi:10.1016/j.schres.2012.10.024.

[18] Renes RA, van der Weiden A, Prikken M, Kahn RS, Aarts H, van Haren NEM. Abnormalities in the experience of self-agency in schizophrenia: A replication study. Schizophr Res 2015;164:210–3. doi:10.1016/j.schres.2015.03.015.