



# Correction to: The Overcontrol in Youth Checklist (OCYC): Behavioral and Neural Validation of a Parent-Report of Child Overcontrol in Early Childhood

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## Correction to:

**Child Psychiatry & Human Development (2020) 51:27–38**  
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The original version of this paper has unfortunately published with some errors which are corrected by publishing this Correction article.

We discovered an error in the scoring of the ERP data. The ERP in our acquisition and processing stream is live referenced to CZ, and then should be re-referenced in post-processing to TP9 and TP10, as described in the paper. However, we discovered that we had accidentally continued to include Cz along with TP9 and TP10 in our template to re-reference the ERP data in post-processing. We have reprocessed all of the data with only TP9 and TP10 in the referencing, as originally described in the manuscript. We then re-ran all of the analyses reported in the Child Psychiatry and Human Development Paper.

All of the results are the same in terms of significance and interpretation, with one correlation now being trending  $p = .06$  (association of  $\Delta$ ERN with the rigidity and frustration with change subscale). Although the processing error does not fundamentally alter the key findings in

the manuscript or the take home message of the study, we wanted to pursue publishing a correction to ensure full accuracy in the results reported and figure of waveforms presented. Below please see a corrected subsection in the results section, “Neural and behavioral validity” with the updated findings as well as a new Table 3 and new Fig. 1. The only updates are to the numbers from the statistical results and the newly processed waveform (that looks almost identical to the original published waveform).

We regret the scoring error in the re-referencing. We have reviewed all of our processing streams and quality check approaches to ensure that such an error does not occur in the future.

## Results

### Neural and Behavioral Validity

#### Behavioral and ERP Results

Accuracy and RT data are in Table 3. RT differed as a function of response type,  $F(1,63) = 90.61$ ,  $p < .001$ , children were faster on error than correct trials. Post-error RT differed as a function of prior error response; children were slower on go-trials after a no-go error ( $M = 633.83$ ,  $SD = 161.75$ ) compared with go-trials after a no-go correct response ( $M = 538.41$ ,  $SD = 108.63$ ),  $F(1,63) = 44.91$ ,  $p < .001$ . PES and PEA were not significantly associated  $r = -.15$ ,  $p = .25$ . Grand average response-locked ERP at Cz is depicted in Fig. 1; the ERN response was more negative after errors than correct responses,  $F(1,63) = 114.16$ ,  $p < .001$ .

#### Associations with OCYC

Total and social concern/perfectionism scores demonstrated similar correlations with behavioral indicators: children with

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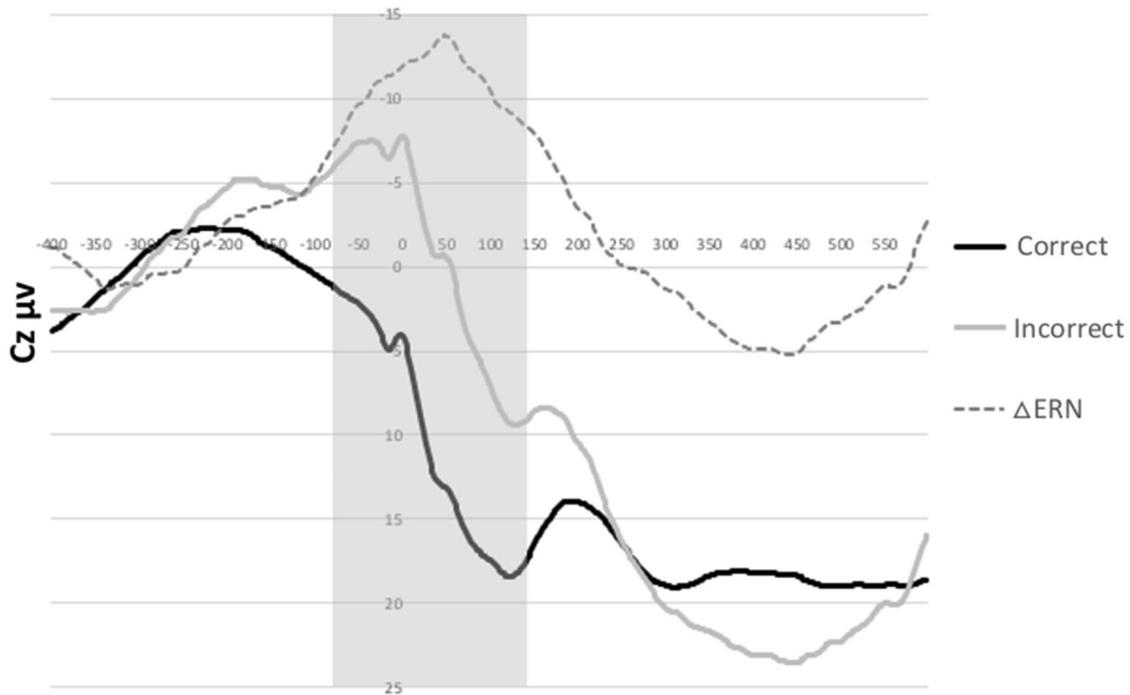
**Table 3** Behavioral and neural performance, correlations and partial correlations (controlling for behavioral inhibition, age and depression status) of OCYC and behavioral and neural and measures of error-monitoring from Zoo Go/no-go task in subset of sample (n=64)

	Mean (SD)	Correlations			Partial correlations		
		Total OCYC	Inflexibility/ frustration	Social concern/ perfectionism	Total OCYC	Inflexibility/ frustration	Social concern/ perfectionism
<b>Behavioral indicators</b>							
Reaction time (ms)							
Error no-go trials	540.11 (95.09)	-.20	-.11	-.27*	-.05	.02	-.12
Correct go trials	613.37 (95.74)	-.32*	-.24	-.34*	-.19	-.12	-.21
Accuracy							
No-go trial errors [%]	25.09 (11.48) [36%]	.26*	.20	.27*	.07	.02	.09
Go trial errors [%]	25.66 (21.15) [12%]	.20	.18	.19	.16	.11	.16
Post-error responding							
Post-error slowing	101.15 (16.61)	-.09	-.11	-.05	-.004	-.02	.02
Post-error accuracy	-0.85 (.08)	.28*	.23	.27*	.10	.07	.11
<b>Neurobiological indicators</b>							
ERPs (μV)							
ERN	5.21 (6.00)	-.06	-.03	-.08	-.02	.03	-.07
CRN	-2.07 (6.34)	-.32**	-.24	-.34**	-.13	-.07	-.16
ΔERN <sup>a</sup>	-7.28 (5.49)	.28*	.24	.28*	.11	.11	.08

Mean (SD). Post-error reaction time=reaction time when previous no-go response was incorrect; post-error reaction time=reaction time when previous no-go response was correct; post-error slowing percentage=(RT when prior trial was incorrect no-go – RT when prior trial was correct go)/RT when prior trial was correct go; Post-error accuracy percentage=(accuracy when prior trial was incorrect go – accuracy when prior trial was correct go)/accuracy when prior trial was correct go

<sup>a</sup>Greater ERN is a more negative value

\**p* < .05; \*\**p* < .01



Note: Electrode Cz is shown and indicates the time window (in gray) used to isolate the ERN

**Fig. 1** Grand average response-locked ERPs at Cz

higher scores had faster RT's and more errors on no-go trials (see Table 3). Interestingly, elevated total and social concern/perfectionism scores were positively associated with PEA: after making an error on a no-go trial, children with higher overcontrol were more likely to be correct on the following trial. For neural indicators, the total and the social concern/perfectionism were associated with a blunted  $\Delta$ ERN, the inflexibility/frustration with change subscale was trend level  $p = .06$ . However, when controlling for BI, age,

and depression status, neural and behavioral findings were no longer significant.

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