

Supplement:

Post-session Survey

Thank you for participating in our study!

The following questionnaire will ask you about your experience during your time with us. Please select the response that most closely matches your opinion. A section will be provided at the end to include any other feedback you would like to provide.

It was easy for me to travel to the lab, including clear directions.

1 2 3 4 5

Strongly disagree Strongly agree

It was easy for me to adhere to the pre-appointment guidelines for 24 hours and 4 hours prior.

1 2 3 4 5

Strongly disagree Strongly agree

I understood the processes and procedures of this study before providing my informed consent.

1 2 3 4 5

Strongly disagree Strongly agree

I felt comfortable going through each of the tests.

1 2 3 4 5

Strongly disagree Strongly agree

I felt confident about what I was supposed to do for each test.

1 2 3 4 5

Strongly disagree Strongly agree

I felt the tests did not require a lot of effort from me.

1 2 3 4 5

Strongly disagree Strongly agree

I thought the questionnaires were easy to understand.

1 2 3 4 5

Strongly disagree Strongly agree

I felt the EEG cap was comfortable, not too itchy, and not too tight.

1 2 3 4 5

Strongly disagree Strongly agree

I felt it was easy to follow along with the deep breathing.

1 2 3 4 5

Strongly disagree Strongly agree

I felt it was easy to hold my grip steady for 2 minutes without any issues (i.e., hand cramps or sweaty palms).

1 2 3 4 5

Strongly disagree Strongly agree

I thought the research staff was helpful and knowledgeable when I had questions or concerns.

1 2 3 4 5

Strongly disagree Strongly agree

I thought the compensation was fair considering the length of the study.

1 2 3 4 5

Strongly disagree Strongly agree

I would participate in and recommend others to participate in a research study at the Center for Chiropractic Research.

1 2 3 4 5

Strongly disagree Strongly agree

I thought there was enough availability to schedule an appointment that worked for me.

1 2 3 4 5

Strongly disagree Strongly agree

Is there anything else you would like to tell us about your experience with this study?

Figure 1S: RELAX phase 1 parameter settings for resting-state EEG.

Figure 2S: RELAX phase 2 parameter settings for resting-state EEG.

Figure 3S: RELAX phase 1 parameter settings for ERP data.

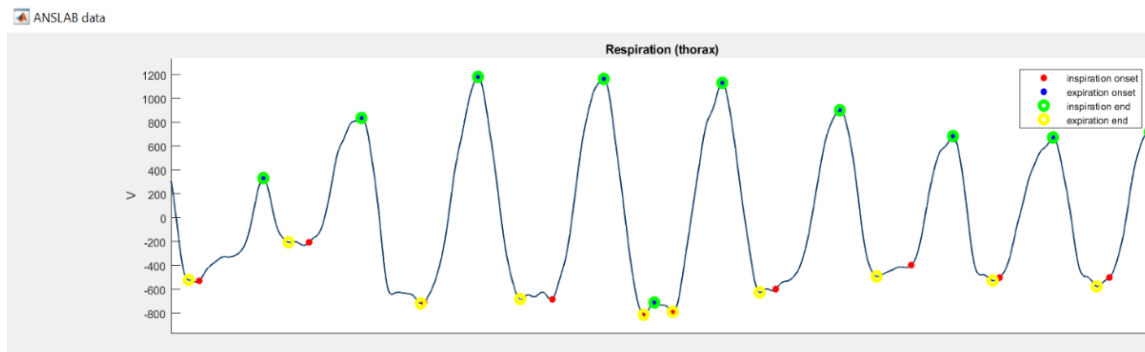


Figure 4S: Respiration signal with detected inspiration/expiration onsets and ends.

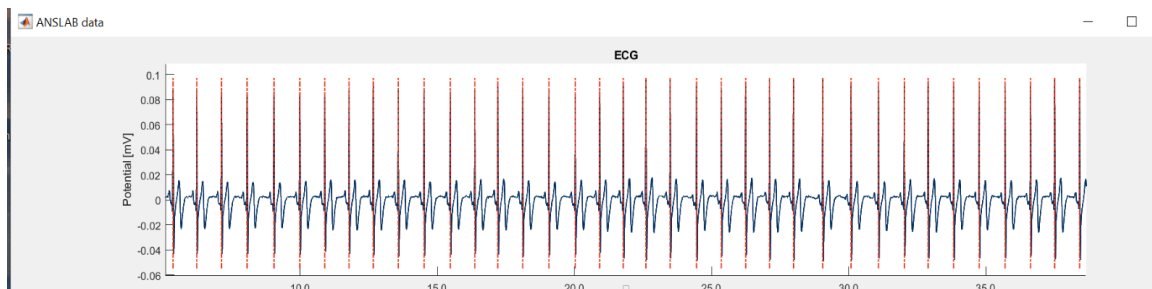


Figure 5S: ECG signal with detected R-peaks.

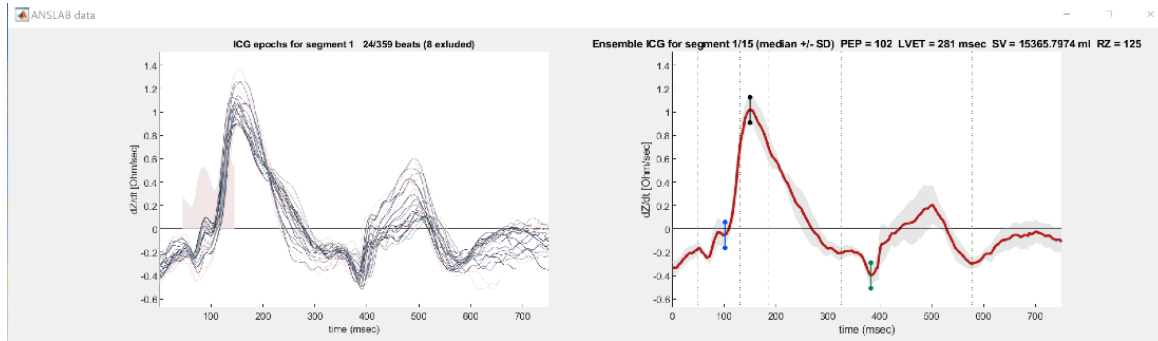


Figure 6S: dZ/dt waveform batch plot (left) and ensemble-average (right) for a 30-second data segment.

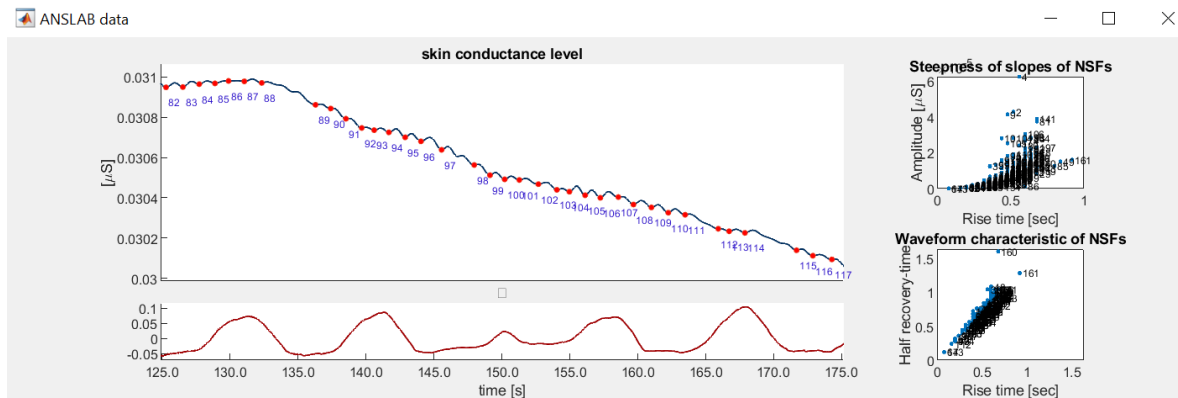


Figure 7S: EDA time-series with detected non-specific skin conduction responses (NSFs).

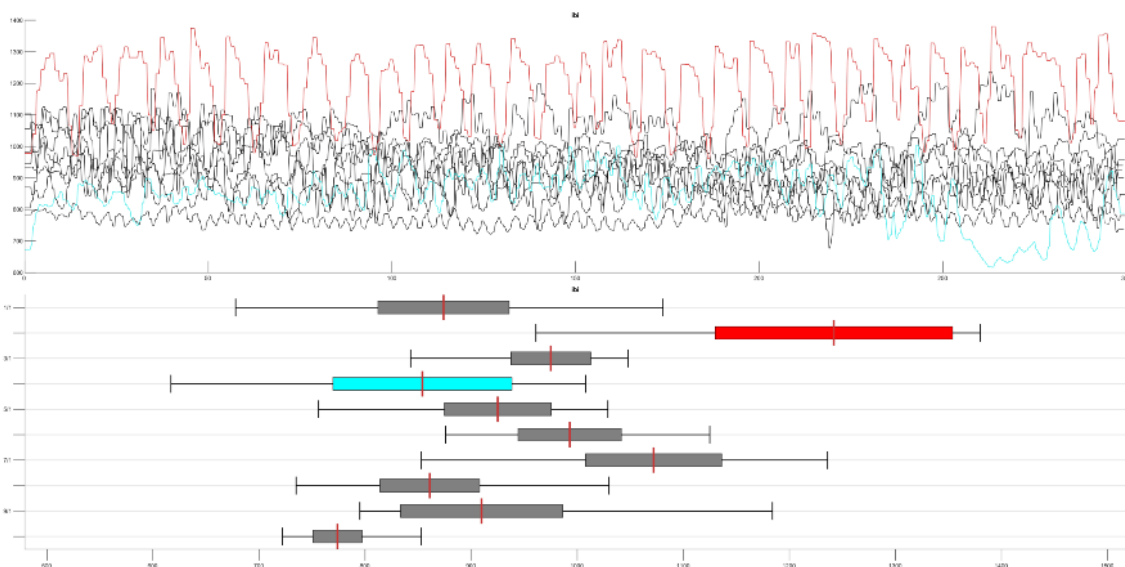


Figure 8S: Interbeat interval (IBI) batch plot

Table 1S: EEG data quality checks performed following phases 1 and 2 of RELAX.

Metrics to check after RELAX Phase 1			
Metric	Metric Location	Threshold	Action
*PREP rejected too many electrodes	RELAX_issues_to_check.mat (column 2)	Value > 0	>25% of electrodes were rejected. Reject the file!
**Electrode Rejection Recommendations Met or Exceeded Threshold	RELAX_issues_to_check.mat (column 3)	Value > 0	**Evaluate the raw data file and the cleaned (not epoched) data file
MWF eigenvector deficiency R3	RELAX_issues_to_check.mat (column 8)	Value > 0	Potential issues with the ability to clean the data using MWF. Compare the raw data file against the cleaned data file to determine if there is no usable EEG activity.
Metrics to check after RELAX Phase 2 (Resting-state EEG only)			
Metric	Metric Location	Threshold	Action
EpochsRemaining	EpochRejections.mat (column 3)	Value < 112 for 5-min resting state	>25% of the original epochs were rejected. Reject the file!
***Amplitude (voltage) above or below threshold	OutlierParticipantsToManuallyCheck.mat (columns 2 & 3)	Value other than 0	Inspect epoched (not cleaned) data files in case they show corrupted data that should be excluded
*Can see the exact electrodes that PREP rejected by looking at column 2 of RELAXProcessingExtremeRejectionsAllParticipants.mat			
**If the raw data seems to show noise such that you suspect the MWF & wICA will mostly just be detecting noise components, & thus will be rejecting clean data as well as the noise (because separation of noise & signal is messier when the data is extremely noisy), then the file should be excluded. Similarly, if the cleaned data shows noisy electrodes all the way through (which can't be addressed by excluding epochs prior to analysis), then the file should be excluded from analyses.			
***Which participants show logged median voltages that are outliers compared to the other participants			

Table 2S: ANS data quality checks

Signal	Variable/Landmark	Threshold	Action
Respiration	Respiration rate	RR <7 (0.12 hz) or >30 (0.5 hz) within a segment	Reject file
cBP	Systolic/Diastolic peak	>10% peaks interpolated	Reject file
ECG	IBI	<375 ms or >1400 ms	Inspect raw files to ensure normal sinus rhythm. Small IBI suggests ectopic beat or misidentified R-peak; High IBI suggests missed R-peak. Interpolate if necessary.
	R-peak	>10% R-peaks interpolated	Reject file
ICG	dZ/dt	<15 valid beats in a segment	Reject segment
	B-point	Invalid/missing B-point	Reject segment
EDA	SCL	<1 µS	Reject file

	NSF	>3 μ S	Inspect raw EDA & respiration signals to ensure a valid NSF
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