

1. Introduction

The goal of my research is to connect Number Sense (understand as fundamental cognition feature manifested on detecting a difference between sets or objects in case of amount or length) and bias of affective stimulus estimation duration. One study is focused on evaluating the Scalar Expectancy Theory (Gibbon, 1977) by checking the impact of individual difference as a Number Sense (measured as Webber fraction) on function curvature of visual stimulus time estimation. A procedure was based on the exposition of stimulus shorter than 2 seconds.

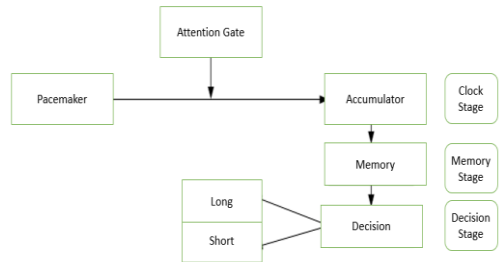
2. Theoretical Background

Richard Block and Dan Zakay (1996) have developed a time perception model based on cognitive process (*Scalar Expectancy Theory* (Gibbon, 1977)). *SET* model is based on a *Pacemaker - Accumulator* module and *Attention Gate* moderation role.

Allesandro Angrilli (Angrilli et. Al, 1997) showed impact of affect and arousal on time perception based on visual stimulus.

Marion Noulhiane (Noulhiane et.al, 2007) showed impact of affect and arousal on time perception based on sound stimulus.

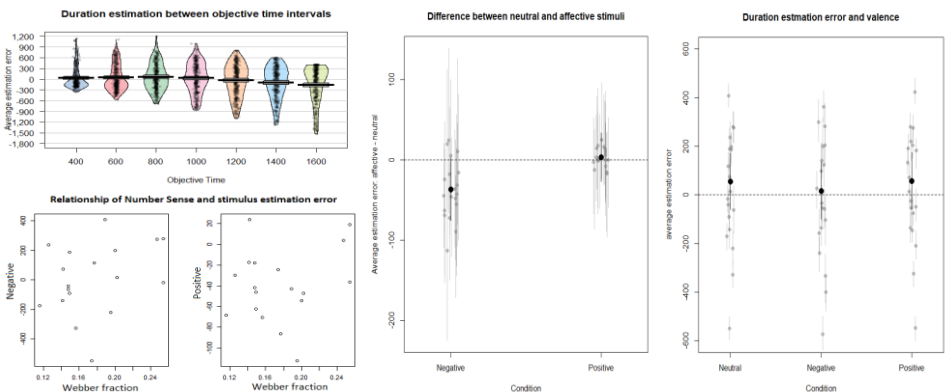
Number Sense as a predictor of future achievements in math and physics (Gilmore, McCarthy, Spelke, 2010).



3. Methods

19 Undergraduates students from University of Social Sciences and Humanities went thru the procedure of measurement of Number Sense via Panamath software (Halberda, J. et al., 2008), 14 training and 126 main trials where they had to estimate the duration of pictures from IAPS (Lang, P. J. et al., 2008) and the certainty of estimation. There were 42 positives, 42 negatives and 42 neutrals stimulus with no arousal differences. Data was processed in BRMS package (Bürkner P. C., 2017) in R.

4. Results



5. Discussion

1. There was no correlation between Number Sense and the estimation error of affective pictures
2. Negative stimulus duration estimation was better (higher accuracy) than neutral stimulus
3. Decreasing of estimation time along objective time

6. References

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