



Sensory Challenge Protocol: a pilot study of the Italian adaptation in undergraduate

Stefano Scatigna – PhD Student – e-mail stefano.scatigna@unifi.it

1 INTRODUCTION

Sensory Processing (SP) is defined as the capacity of the central nervous system to aggregate, process, and generate adequate responses to sensory stimuli (Dunn et al., 2001). SP shows **high variability across subjects** (Machingura et al., 2019), depending also on other **cognitive functions** such as **cognitive control** (Brown et al., 2021), and alterations are observed in several **neurodevelopmental disorders** (Galiana-Simal et al., 2020). SP is commonly assessed via indirect measures (e.g., questionnaires), which tend to be affected by subjective perspectives and to show low sensitivity to intersubject variability (De Los Reyes et al., 2019). Recently, new tools such as **Sensory Challenge Protocols (SCP)** have been developed to directly measure sensory responses to different stimuli varying in sensory modality and intensity (Gomez et al., 2017). With the long-term aim of adapting such paradigms to the Italian context and to neurodevelopmental conditions known to be vulnerable in sensory processing, studies aimed at testing the feasibility of such protocols are needed.



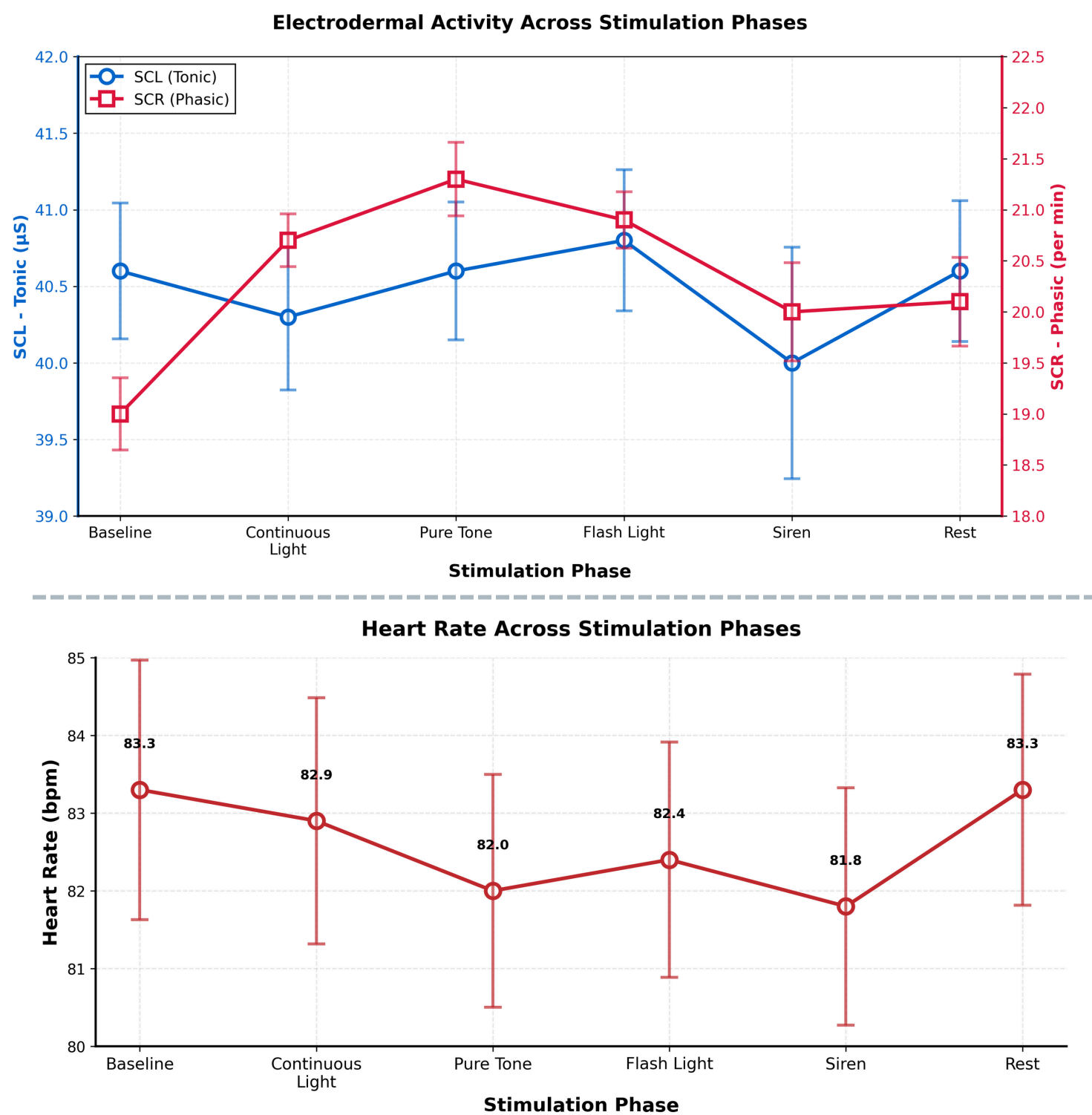
AIM

The main aim of the present study was the implementation and testing of a **Sensory Challenge Protocol** in university students. Secondly, given the established link between **sensory processing** and **cognitive control**, a further aim was to **investigate the relationship** between these two domains.

3 RESULTS

DESCRIPTIVE STATISTICS

	<i>M (SD)</i>	Skewness	Kurtosis
SENSORY PROCESSING (AASP)			
Low Registration	32.0 (8.10)	0.68	0.59
Sensation Seeking	46.6 (6.39)	-0.06	0.79
Sensory Sensitivity	40.2 (7.81)	0.19	0.38
Sensation Avoiding	36.6 (7.05)	0.27	-0.12
Visual Processing	25.7 (4.57)	0.21	-0.57
Auditory Processing	28.5 (6.05)	0.53	-0.63
EXECUTIVE FUNCTION (BRIEF-A)			
Behavior Regulation Index	50.2 (10.62)	0.02	0.21
Metacognition Index	50.2 (11.69)	0.86	0.6
Global Executive Composite	50.1 (11.10)	0.43	0.57
SUBJECTIVE EXPERIENCE QUESTIONNAIRES (PSQ & PANAS)			
Global Discomfort [1-10]	3.53 (2.34)	0.6	-0.85
Focus Difficulties [1-5]	2.70 (1.98)	0.12	0.9
Positive Affect (PANAS)	31.90 (6.51)	-0.004	0.48
Negative Affect (PANAS)	14.90 (5.56)	1.35	1.18



CORRELATIONS (ρ)

