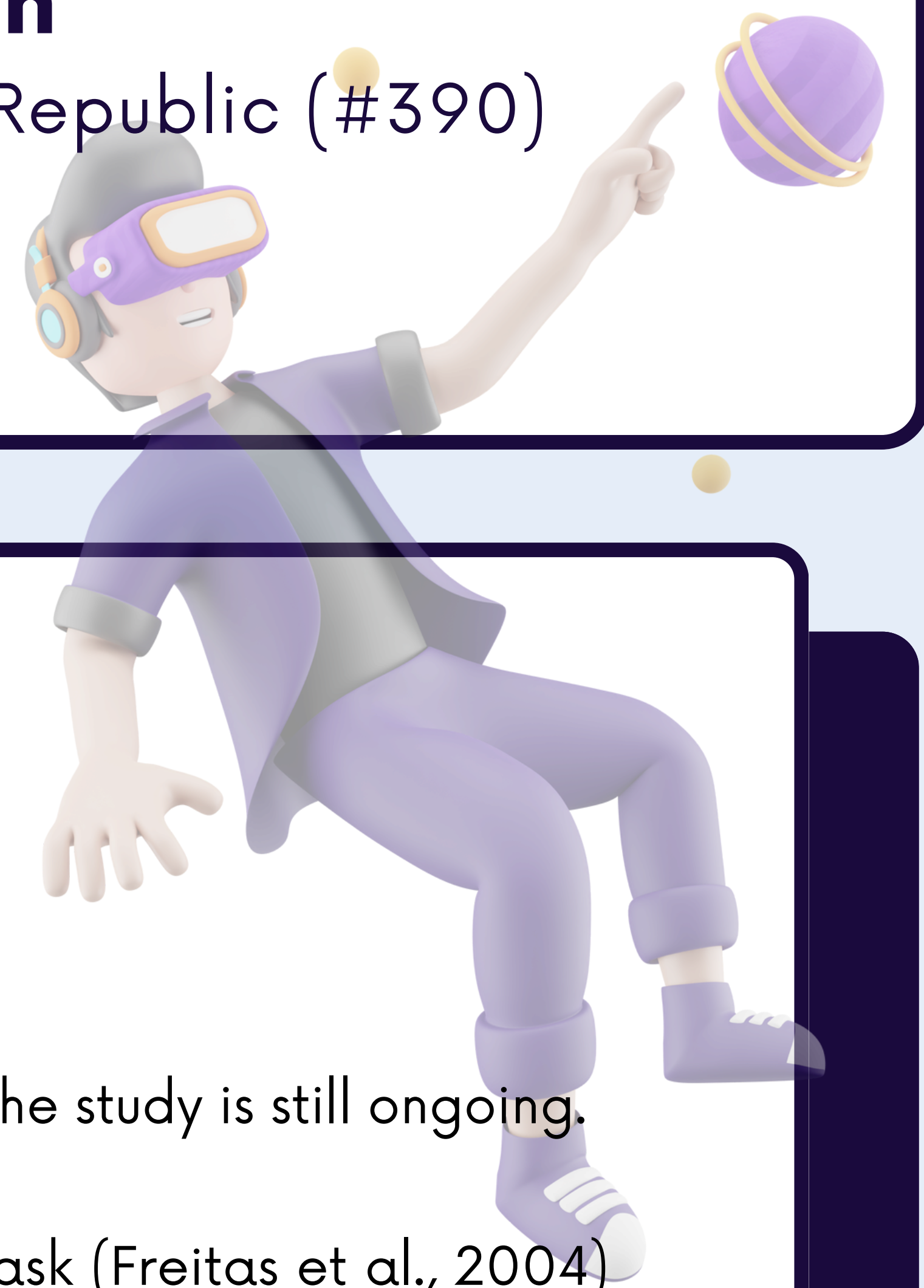


Construal Level In Space: An Experimental Study of Construal Level and Spatial Orientation

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A.

Introduction

Spatial Orientation

- a set of complex abilities that allow one to position oneself in space based on a specific reference point (Coluccia & Louse, 2004)

Construal Level Theory

- psychological distance and the level of abstraction of mental representations
- High level vs low level (Trope and Liberman, 2007)

B.

Objective

The primary objective of the current experimental study is to examine the potential impact of construal level (abstract vs. concrete) on spatial orientation.

C.

Hypothesis

Hyp1. Activation of the abstract construal level (focus on the big picture - primary features of things/events) would lead to higher spatial orientation scores.

Hyp2. Activation of the abstract construal level would lead to less total fixation duration than activating the concrete construal level (focus on details - secondary features of things/events).

D.

Methodology

Participants

- 16 (5 women and 11 men, Mean of age = 24)
- The targeted sample size is 102 ($1 - \beta = 0.80$) and the study is still ongoing.

Materials

- How (abstract) and Why (concrete) manipulation task (Freitas et al., 2004) is used to manipulate the construal level. (instructed to think about how or why they would do something, e.g improve mental health)
- Manipulation Check (Rim et al., 2014) grouping task. Abstract (less group), and Concrete (more group)
- Virtual Reality Glasses with head-mounted/mobile eye tracker (they were able to look around (118 pieces) as they wished)
- Ehrenbreitstein Castle (located in Koblenz/Germany) simulation (Münch, 2016)



Note. The visuals from the Ehrenbreitstein Castle simulation like well in the main court (on the right)

Design and Procedure

- Experimental between-subject design
- First manipulation with How and Why task based on the group
- Then visit the simulation of Ehrenbreitstein Castle
- Six locations -> (to point with a button evoking a laser sword to the starting point, i.e. an object that served as the target object) to the well.
- Greater the deviation, lower the spatial orientation scores

E.

Preliminary Results

The analyses revealed no significant difference between participants in the two conditions for spatial orientation or total fixation duration. However, it is essential to note that the study is still ongoing, and these findings are considered preliminary.

Table 1. T test analysis results for hypothesis 1

	N	Mean	SD	t	df	p
Abstract condition	8	32.9	24.7	.758	14	.379
Concrete condition	8	25.3	13.3			

Table 2. T test analysis results for hypothesis 2

	N	Mean	SD	t	df	p
Abstract condition	8	780	133	.859	13	.823
Concrete condition	8	840	133			

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