Can cognitive load modify the effect of an objectified video game on sexism?

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Background

According to the General Learning Model (Buckley & Anderson, 2006):

- Video games (VG) provoke learning through automatic appraisal of the gaming situation
- Reappraisal process of this situation is possible, but a high degree of cognitive load can impair it

Sexual Objectification = A specific type of appearance-focus concentrated on sexual body parts (Gervais, 2013)

Individuals exposed to VG with a high degree of objectification experience increase in (Yao et al., 2010; Fox & Potocki, 2015):

- Sexual thoughts
- Sexist attitudes
- Rape myth acceptance (prejudicial, stereotyped, or false beliefs about rape, rape victims, and rapists)

At present, cognitive load in VG and its effect on the reappraisal process has never been evaluated in previous studies

Objectives

Examine whether cognitive load may be manipulated during VG use
Determine if higher cognitive load will influence sexist attitudes

Methods

Participants

19 Undergraduate university students with little experience with VG (10 males; 9 females)

Procedure

Participants played a sexually objectified fighting game for 5 minutes (Ultra Street Fighter IV; Figure 1). There were 2 conditions:

- High cognitive load (i.e. High number of VG/player interactions)
- Low cognitive load (i.e. Low number of VG/player interactions)

Measures

Cognitive load

During the VG: Verbal 2-Back Task
After the VG: Mental effort scale

Sexist attitudes

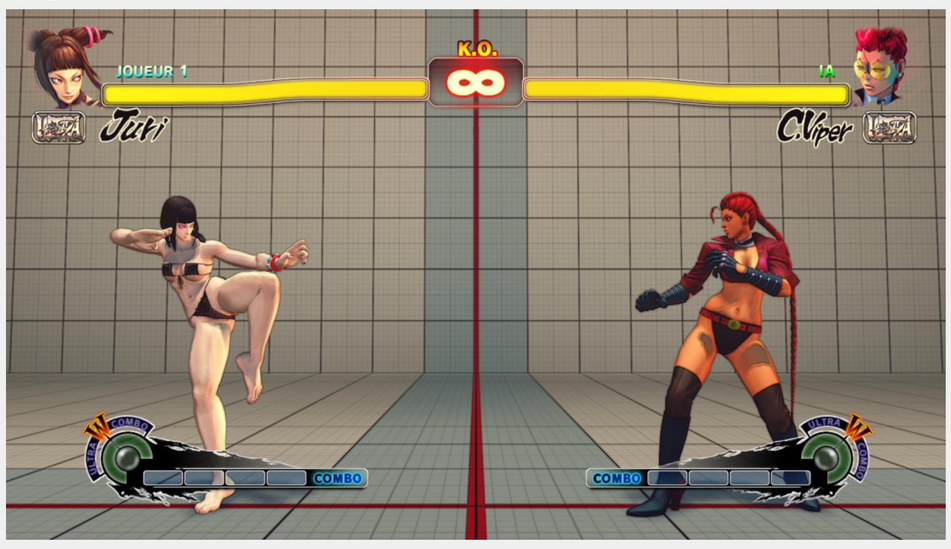
Ambivalent Sexism Inventory (Dardenne et al., 2006)

Results

I. Differences between cognitive loads

	Low Cognitive Load	High Cognitive Load	t(17)	p
N-Back Omission	29.30(8.74)	39.00(8.20)	-2.49	.02
N-Back False Alarm	4.5(2.63)	5.00(3.35)	-.36	.72
Mental Effort	3.00(1.63)	4.56(142)	-2.20	.04
Hostile Sexism	33.60(8.44)	29.33(5.33)	1.29	.21
Benevolent Sexism	18.40(5.16)	15.89(6.41)	.94	.35

Figure 1: Screenshot of the objectified VG



Discussion

Cognitive load can be manipulated during VG use

Participants under high cognitive load were:
- ❑ Less competent during the 2-Back task
- ❑ Subjectively rated the VG as more cognitively demanding

Higher cognitive load did not influence the degree of adhesion to sexist attitudes

No effect were found for both hostile and benevolent sexist attitudes

But, the totality of the cognitive resources could have been used by the combination of the VG and the 2-back task, creating an absence of real differences between our two conditions

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