Crossmodal congruency between background music and the online store environment: The moderating role of shopping goals

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KNOWLEDGE IN ACTION

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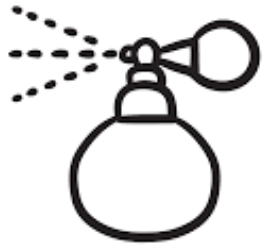
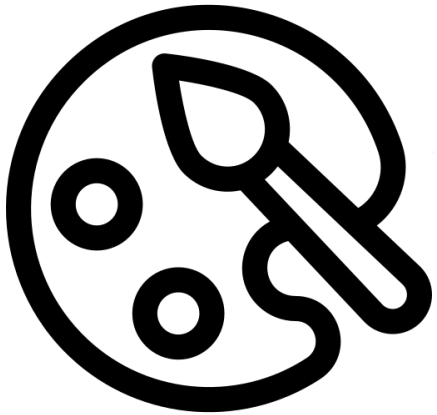
Introduction





Introduction

No background music?

- Disturbance of consumer or others in the environment

- Shopping goal?
  - Goal-directed vs. experiential browsing

(Eroglu et al., 2003; Wang et al., 2011).

Holistic environment

- Multisensory interaction effects between atmospheric cues

  - Congruent cues >> Incongruent cues

    (e.g., Mattila & Wirtz, 2001; Michon & Chebat, 2004)

    - Processing fluency

      (e.g., Schwarz, 2004; Winkielman et al., 2003)

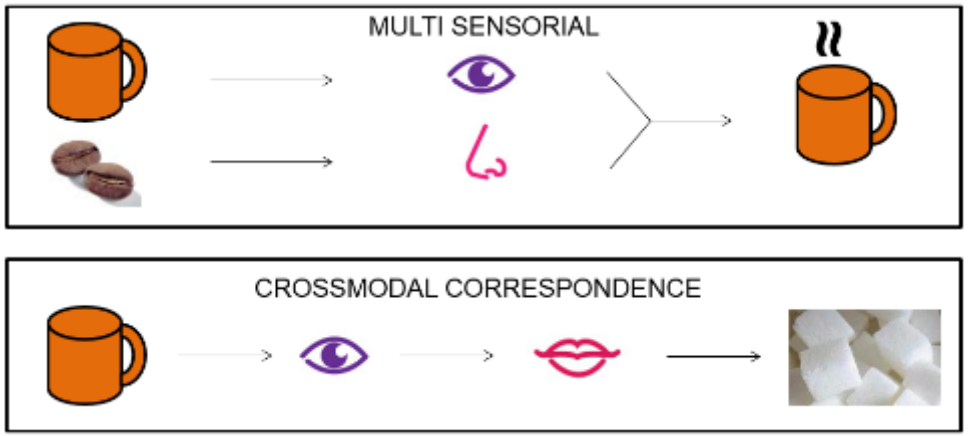
Holistic environment

- How to create congruity?
  - Previous research:
    - Sharing of one specific characteristic (e.g., Mattila & Wirtz, 2001)
    - Atmospheric cues are associated with diverse sensory characteristics (e.g., brightness, lightness, softness, warmth, Adams & Doucé, 2019)
    - Partial congruity is not enough to trigger positive consumer reactions (e.g., Doucé, 2022)
  - Incorporating multiple cue characteristics when choosing the appropriate atmospheric cues
    - Multisensory congruity via crossmodal correspondences

Crossmodal congruency

A crossmodal correspondence (CC) refers to the tendency of one sensory modality to be matched with another sensory modality

Spence (2012)



Crossmodal congruency

Adams & Doucé (2017)

= congruency between the CC elicited by an atmospheric cue and the CC elicited by the store environment

Crossmodal congruency index (CMCI)

= index composed of 11 bi-polar items

Star-shape	Spot-shape
Bright	Dim
Cold	Hot
Fragile	Sturdy
High	Low
Light	Dark
Light	Heavy
Loud	Quiet
Rough	Smooth
Shallow	Deep
Soft	Hard

used to inventarize on a 100 mm VAS for each dimension which CC is being elicited by a stimulus (e.g., environment, scent, music …)

Adams & Doucé (2017)

Crossmodal congruency score (CMCS)

= the sum of the absolute difference between the score for the two stimuli (i.e., environment and musical piece) on each dimension divided by the number of dimensions (i.e., 11)

$\Rightarrow$ a score between 0 and 100

The lower the score (= fewer differences)
=> the more crossmodally congruent

Hypotheses

- For experiential browsers:
  - crossmodally **congruent** background music will lead to more **positive** consumer reactions than the absence of background music
  - crossmodally **incongruent** background music will lead to more **positive** consumer reactions than the absence of background music,

- For goal-directed searchers:
  - crossmodally **congruent** background music will have **no effect** on consumer reactions compared to the absence of background music
  - crossmodally **incongruent** background music will lead to more **negative** consumer reactions than the absence of background music

Crossmodal congruency in online setting

- 3 x 2 between-subjects design
  - Music
    - No music
    - Crossmodally incongruent music
    - Crossmodally congruent music
  - Shopping goal
    - Goal-directed searchers
    - Experiential browsers
- Shopping task online clothing store
- 243 respondents
  - M_{age} = 25.37; 74 male and 165 female
- Dependent variables

(a) pleasure experienced (b) arousal experienced

(c) store evaluation (d) approach behavior

(e) money spent

Selecting the musical pieces to be used

- Pretest
  - 34 respondents
  - 11 bi-polar items of CMCI
    - Online store environment
      - Fashion store
    - Musical pieces
      - 10 musical pieces
        - Pop music – equal BPM
        - Instrumental versions
      - Pleasantness and fit with fashion store
        - 7-point Likert scale

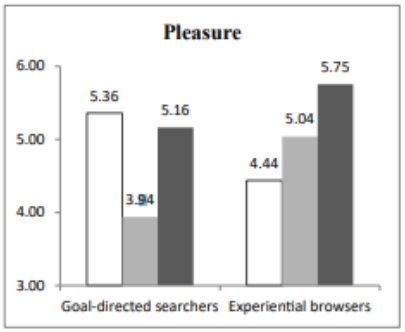
Selecting the musical pieces to be used

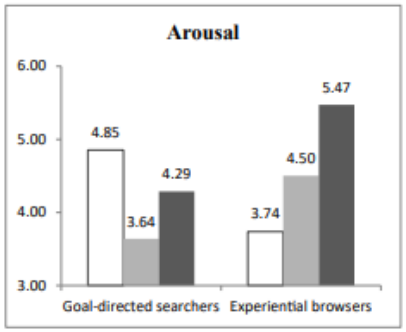
- Calculating the CMCS
  - 2 musical pieces not different in pleasure and fit
    - One with the lowest possible difference
      - Dancing in the Moonlight of Toploader
    - One with the highest possible difference
      - Get lucky of Daft Punk

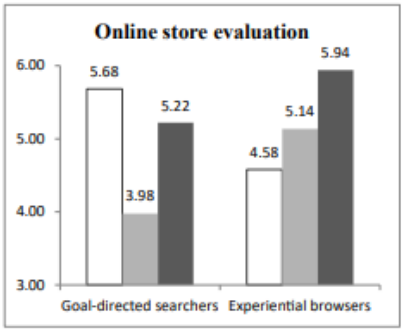
Results

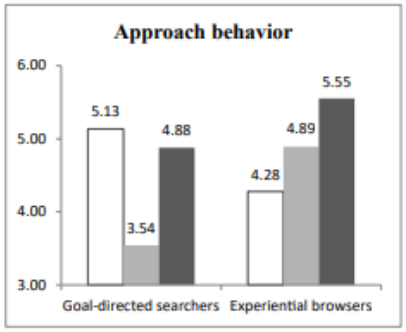
	Music x Shopping goal interaction		
Dependent variables	$F(2, 233)$	p	η_p^2
Pleasure	20.24	< .001	15
Arousal	19.89	< .001	.15
Online store evaluation	24.77	< .001	.18
Approach behavior	19.46	< .001	.14
Money spent	7.75	< .001	.06

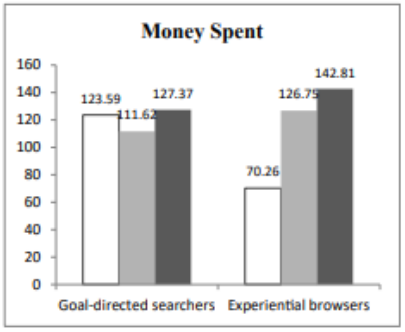
Results











Legend:

- No music
- Crossmodally incongruent music
- Crossmodally congruent music

Key contributions

- Establishing a more holistic way of determining congruency between background music and the online store environment via various elicited crossmodal correspondences

- Confirming the added value of congruent background music in an online store environment

- Showing that crossmodally congruent music cancels the negative effect of background music in an online store setting for goal-directed consumers.

Thank you for your attention!

Questions/Suggestions?

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