

Exploring the Impact of Background Inconsistency on Consumers' Negative Feelings Toward Virtual Influencers

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Introduction & Background

- Virtual influencers (VIs) are widely used in social network advertisement (SNA). Although human-like VIs aim to reflect realism, consumers can experience a range of emotions from attractiveness to feelings of uncanniness and fear. In particular, recent studies have shown that the way VIs are presented can influence how consumers evaluated them (Ham et al., 2022).
- The effect of background image on evaluations of VIs can be explained through **Mandler's schema-incongruity framework (1982)**. Schema-incongruity framework explains that as humans process new information based on their existing expectations or schemas (e.g., consistency or asymmetry), incongruent information leads to negative evaluation if incongruity is not properly resolved.
- Research Objective** : This study aims to investigate the effects of VI-background image inconsistency on consumers' emotional responses towards VI through experiment.

Literature Review

- Based on Mandler's schema incongruity framework, VIs in a real-world background may be perceived less favorably due to heightened inconsistency between the background image (i.e., reality) and the nature of the character (i.e., virtuality). In this study, reality background is hypothesized to be more inconsistent with the VI than virtuality background as consumers will naturally process that virtual humans match up better with virtuality background while real humans match up better with reality background.

Hypotheses

- H1**: When the background image is real world, consumers perceive higher level of uncanniness towards VI via heightened inconsistency.
- H2**: The effect of perceived inconsistency on perceived uncanniness is greater when consumers' categorization uncertainty about VI is low.

Methodology

- Single factor between-subjects design**



- Sample size**: 200 South Korean female Instagram users aged 20s~50s with no awareness of Rozy, a famous Korean VI used in the experimental stimulus of this study
- Data Analysis**: Bias-corrected bootstrapping analysis was conducted using Hayes (2018)'s SPSS Process Macro Model 4 and 7 with 5,000 samples. Age and awareness of VI were controlled as covariates.

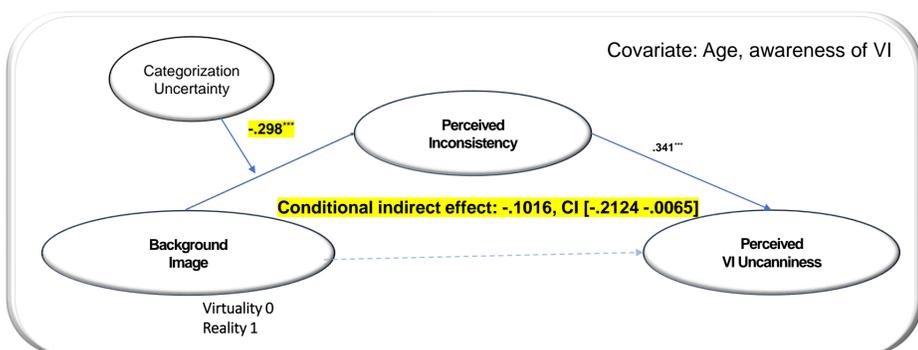


Fig 1. Moderated mediation model of categorization uncertainty

Results

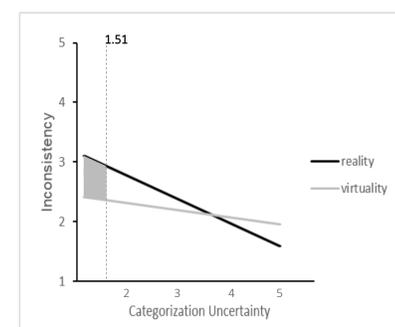
- Moderated mediation analysis**
 - Mediating effect (tested using model 4)**: The results showed that the direct effect of background image on perceived VI uncanniness was not statistically significant, but the indirect effect of background image on perceived VI uncanniness was statistically significant. Thus, **H1 is accepted**.

Table 1. Moderation effect of categorization uncertainty on perceived inconsistency

Dependent variable	Independent variable	Coefficient of Effect	95% Confidence Interval		R ²	F
			LLCI	ULCI		
Perceived Inconsistency	Background Image	.885	.1203	1.6495	.062	2.583*
	Categorization Uncertainty	.009	-.1709	.1888		
Perceived VI Uncanniness	CU x BI	-.298*	-.5476	-.0476	.164	9.571**
	Background Image	.153	-.0769	.3819		
	Perceived Inconsistency	.341***	.2271	.4556		

*p<.001, **p<.05, ***p<.01

- Moderated mediation effect (tested using model 7)** : The **negative moderating effect of categorization uncertainty** in the indirect path was significant, which was mediated by perceived inconsistency. Specifically, the negative interaction effect of background image and categorization uncertainty on perceived VI uncanniness was statistically significant. Thus, **H2 was supported**.
- According to the results of Johnson-Neyman test, negative interaction effect was significant up to 1.51 of CU value.



Conclusion

- The findings of the study revealed that inconsistency between the reality background image and the VI character influences negative feelings towards the VI character.
- In particular, this can be intensified when consumers certainly recognize the character to be virtual being.
- Therefore, VI marketers should consider utilizing virtuality cues in the background image in order to address processing inconsistency, which thus can help to promote more positive evaluations towards VIs.