

***Experiential Consumption of Video Game and In-Show Ads:
Phenomenological Explanation through Thought Experimentation***

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ABSTRACT:

Although survey, experimental, and interpretive methods offer meaningful insight to video game and in-show advertising effects, exact knowledge of how recipients respond in real-time to such promotional stimuli is relatively unknown; unbiased and error-free data in such methodological settings are unattainable. To bypass such imprecision, we turn to thought experimentation to consider how gamers (viewers) respond to in-game (in-show) ads. Leaning on distinctiveness theory and dual-process theory, our thought experiments suggest how dopamine levels in video gamers and television viewers are influenced as they are exposed to unique and novel advertisements while in game-playing and show-watching mode, adding insight to these experiential consumptive types. Future research direction is offered.

Keywords: dual-process theory; experiential consumption; in-game advertising; in-show advertising; distinctiveness theory; thought experiment

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Marketers compete for attention and memory in a progressively cluttered and fragmented marketplace for an increasingly wary, resistant, and technologically savvy consumer; advertising which does not appear to be advertising and messages presented in novel ways may be expected to rise above the myriad of persuasive appeals assailing consumers (Dahlen and Edenius 2007; Stanton and Burke 1998). Hence, product and brand placement in movies, television programming, music, novels, live entertainment, and more recently digital media has increased dramatically (Balasubramanian, Karrh, and Patwardhan 2006; Homer 2009). While the growth of product and brand placement has been, at best, uneven and its effects subject to some confusion and controversy, the sheer volume (14 billion in 2010) and reach of the industry argue for more academic inquiry (Balasubramanian, Karrh, and Patwardhan 2006; Homer 2009).

A focus here, video games provide a unique communicative playground in which advertisers should participate. In this milieu, advertisers are taking advantage of the experiential nature of video gaming by speaking to the product interests of a captive and engaged audience. Financially, the video game industry is a marketplace stalwart, illustrated by the fact that Americans spent \$13 billion on video game software in 2006, trumping box office expenditures by \$3 billion (Horrow and Swatek 2011). Furthermore, downloadable-only video game revenue was \$3.8 billion in 2010 (Savov 2011). In one month (April 2011), total video game sales reached \$961.2 million (NPG Group 2011). As evidenced by allocation of in-game advertising (IGA) monies escalating in recent years (i.e., \$90 million in 2007 to

\$800 million in 2012) (Horrow and Swatek 2011), IGA has proven to be an appealing marketing communication tool to reach a uniquely defined and technology-bound consumer, especially the hard-to-reach 18-34 year old demographic (Lorenzon and Russell 2012).

The video game industry's presence in mainstream society can be attributed in part to the experiential nature of gaming. Similar to a servicescape ameliorating a resort patron's experience (Bitner 1992), the video game playing phenomena moves beyond whether a player wins or loses; the realism offered by such technology puts images of playing *Pong* on *Atari* incomprehensible. The realistic graphics offered by sport video games for example, put the fan right in the middle of their favourite team's stadium, where field conditions, stadium design, player attributes, and advertising mirror the real world. Here, the realistic, experiential nature of playing and a highly competitive environment enhance value perceptions of video game purchases and participation. As experiential consumption phenomena strongly influence buying decisions (Holbrook, Lehmann, and O'Shaughnessy 1986), being able to theoretically ground drivers of experiential and aesthetic consumption are essential to understanding consumer behaviour (Gazley, Clark, and Sinha 2011).

Additionally, within movies and television, brand and product placement (i.e., in-show advertising – ISA) simulate reality by marketing a given brand or product while providing the consumer with clues to time, location, and actors' personalities (Balasubramanian, Karrh, and Patwardhan 2006). Just as fans attending or watching football, baseball, hockey, or soccer games encounter ubiquitous real or virtual advertising, so does the gaming aficionado and not always with appreciation for the intrusion (Nelson,

Keum, and Yaros 2004). The key difference, apart from the fact that the gamer is more involved than a passive observer (Lee and Faber 2007), is that currently, the brand or product in interactive gaming is to some extent customizable. Thus, while television programs or film producers may place products in the hands of actors or have brand images in front, behind, or surround scenes, these images are static and have relatively short shelf life (Karniouchina, Uslay, and Erenburg 2011; Nelson 2002). However, in downloadable sport or action games for example, personalization or customization of the games may range from the congruity, proximity, and prominence of billboards (Chang et al. 2010; Lewis and Porter 2010), to the clothes, props, and characters of the participants (Nelson 2002).

Although commonly practiced, IGA effects remain relatively arcane. Thus, researchers have called for further IGA inquiry (Lee and Faber 2007; Nelson, Yaros, and Keum 2006; Walsh, Kim, and Ross 2008; Yang et al. 2006). Also, as ISA has not been exhaustively explored in the television and film industries (Balasubramanian, Karrh, and Patwardhan 2006), further technological advances toward interactive television and digital graphical interfaces offer exponentially expanding marketing opportunities for the ISA researcher. In partial closure of these research fissures, we propose multiple thought experiments grounded in the experiential consumption of video game and in-show ads.

Thought experimentation is a data-free (because in essence, the data are unattainable), theoretically-grounded approach to expand the boundaries of understanding and explanation; through a 'what if' scenario, they are used as a means to answer (or propose) research questions (Sorensen 1992). For example, and specific to our investigation, *what if* marketers could gauge, in a video game setting, gamers' dopamine level response to

in-game ads upon real-time exposure? If calculable, marketers' understanding of such consumption-related responses would enable efficacious brand strategy development; yet, such invaluable data are inaccessible under current technological conditions. In this sense, thought experiments are characteristically inquisitive; they beguile to our intuitions and curiosity by offering boundless theoretical insight (Brown and Fehige 2011). When robust empirical elucidation is elusive, as illustrated in the above example, thought experimentation can be employed to assist in understanding the posited research question(s) (Boettke and Subrick 2002).

Specifically, our exposition proceeds as follows. First, we review the extant literature on IGA, ISA, and experiential consumption. Next, we discuss the theoretical frameworks (i.e., novelty-based advertising creativity, distinctiveness theory, and dual-process theory) that ground our phenomenological explanatory endeavour. Then, we describe our thought experiments for the video game and interactive television markets, followed by a discussion and future research direction.

Relevant Substantive Literature

In-Game Advertising (IGA)

To grow revenue and enhance game realism, scores of video game producers have adopted IGA (Kim and McClung 2010; Nelson 2002; Yang et al. 2006). In sport video games particularly, brand placement strategies are proving popular among advertisers (Walsh, Kim, and Ross 2008). Research on the effects of product and brand placement in video gaming is

fraught with the same challenges and inconsistencies noted in television and movie placement with additional difficulties due to the active involvement of the player in controlling and modifying the game environment (Lee and Faber 2007). For example, in a first-person shooter video game, gamers recalled embedded billboards but not the depicted brand names (Chaney, Lin, and Chaney 2004). Brand message location (proximity), game involvement, and game-playing experience interact to influence brand memory, such that experienced gamers identify focal ads better than peripheral ads; yet, this effect disappears when game involvement is high (Lee and Faber 2007). Although highly incongruent brands are better recalled than either moderately incongruent or highly congruent brands (Lee and Faber 2007), highly incongruent IGA takes away from game realism and amplifies annoyance levels (Lewis and Porter 2010). Regarding multiplayer settings, playing with a partner versus playing alone increases players' recall of the in-game ads (Dardis and Schmierbach 2012).

For the most part, gamers' attitude toward product placement is favourable; when tactically effective, placement within video games can increase brand awareness (Kim and McClung 2010; Nelson 2002; Sung and Gregorio 2008; Walsh, Kim, and Ross 2008). Further, brand placement in video games positively affects brand memory and correlates positively with intent to purchase the placed brand (Kim and McClung 2010; Yang et al. 2006). Additionally, implicit associations tests reveal that gamers classify in-game-advertised brands as 'good' quicker than they label them as 'bad' or categorize out-of-game brands as 'good' (Glass 2007). Furthermore, animated video game billboard ads compared to static billboard ads increase ad recognition and yield more favourable attitude in ad responses (Huang and Yang 2012).

In-Show Advertising (ISA)

Beginning in the 1930's and 1940's when moviemakers experimented with the placement of commercial messages, overtly as well as discretely, consumers have held a wide range of attitudes toward the commercial invasion of entertainment media from favourable to benign to overtly hostile (Balasubramanian, Karrh, and Patwardhan 2006; Nelson 2002; Nelson, Keum, and Yaros 2004; Yang et al. 2006). Perhaps originally conceived as a way to defray production costs, ISA is pursued currently as a way to overcome consumer resistance to advertising and the dual problems of saturation and fragmentation in traditional media markets (Balasubramanian, Karrh, and Patwardhan 2006; Dahlen and Edenius 2007; Homer 2009). Support for product and brand placement as efficacious and profitable exists (Matthes et al. 2011; Wiles and Danielova 2009); however, research on when, where, and why product placement works, yields mixed results (Balasubramanian, Karrh, and Patwardhan 2006; Homer 2009). Marketers are thus left to ponder the appropriate manner mix of prominence, repetition, and vividness of ISA to achieve the desired cognitive, affective, and conative effects (Balasubramanian, Karrh, and Patwardhan 2006; Homer 2009).

Empirical investigation though, is helping to clarify ISA effects. For example, in movies, brand placement recognition is higher for audio-visual prominent placement than visual-only placement (Brennan and Babin 2004). Along these lines, Wilson and Till (2011) found that placed brands in movies with audio-visual elements, that are prominently displayed, with high actor involvement, and with multiple verbal references significantly increase viewers' category-cued recall of the placed brand. Further, Yang and Roskos-

Ewoldsen (2007) showed that viewers recognized the placed brand in movies more when the brand was used by the main character or when the brand was integral to the plot than when the brand was merely a background component. Regarding genre focus, product placement in humorous movie scenes generates positive emotive responses from viewers (Jin and Villegas 2007), whereas brand recognition is more common in drama films (Park and Berger 2010) when compared to action and comedy films. Additionally, although attitudes toward brand placement are favourable across film, television, and video game media, placement in film and television programming is deemed more acceptable (Sung and Gregorio 2008). Compared to movies, viewer exposure to brand placement in television shows occurs less frequently, possibly explaining the weak effect of television placed brands on viewers' brand attitudes (Ong 2004).

Experiential Consumption

Phenomenological in nature, the experiential view of consumption comprises fantasies, feelings, and fun as part of the exchange process; this consumptive type is a subjective state where a variety of symbolic meanings, hedonic responses, and aesthetic criteria are experienced and examined (Holbrook and Hirschman 1982). Its prominence is evident across a variety of contexts including evaluation of online information quality (Värlander 2007), interactive museums and theme parks (Bigné, Mattila, and Andreu 2008), internet banking (Mäenpää et al. 2006), casino gambling (Cotte 1997; Loroz 2004), web browsing flow (Novak, Hoffman, and Duhachek 2003), imaginary shopping spaces through magazines (Stevens and Maclaran 2005) and online purchases (Andrews et al. 2007), to name a few. Moreover, play within sports and games, as seen in video game settings, offers a unique and

integral part of the consumption experience, replete with emotional and cognitive responses (Holbrook et al. 1984).

Consumers' active role in both the creation and consumption of an experience is fundamental to making this experience successful; in this sense, consumers are co-producers of the exchange (Sierra and McQuitty 2005). In addition, research has demonstrated differences between brand awareness and recall between television and video gaming due to the involvement and engagement of the game experience (Walsh, Kim, and Ross 2008). Here, experiential consumption is grounded in escapism, aesthetic appreciation, and narrative connection (Chronis 2005; Hamilton and Wagner 2011), where involvement, excitement, novelty, and social bonding influence this type of consumption in terms of planning, enjoying, and remembering such experiences (Wikström 2008). As evident in the video game playing and television viewing milieus, these experiential dimensions abound, which make these settings appropriate for phenomenological inquiry into such consumptive aspects.

Understanding what drives consumers to partake in experiential consumption is important to both researchers and practitioners (Chronis 2005); yet, our knowledge about experiential consumption is not exhaustive (Wikström 2008). To help extend our understanding of this consumptive type, we employ thought experimentation. Specifically, we delve into the tactical side of advertising within video games and television shows. For advertisers, naturalistic mechanisms that could capture consumer responses (e.g., cognitive and emotive) to video game and television show ads in real time would offer priceless insight to strategic effectiveness and the consumptive experience of playing video games

and watching beloved shows, providing a robust road map to develop effective in-game and in-show advertisements.

Yet, such measurement devices, as we propose, do not currently exist. Thus, advertisers are left in the dark regarding how the psyche of video gamers and television viewers are truly influenced when they come across ads embedded within such games and shows. Here, the subjectivity in consumption i.e., a personal psychological state, including one's way of feeling, thinking, and perceiving, which is in constant flux based on the situational circumstances (Addis and Holbrook 2001), underpins and provides impetus for our thought experiments.

Theoretical Frameworks

Novelty-based Advertising Creativity

As a creativity cog, novelty theory highlights distinctiveness as an apt, attention-grabbing tactic (O'Quin and Besemer 1989); it is an enduring, focal aspect of successful ad campaigns that relates positively to viewers' recall, attitudes, and emotional responses (Ang, Lee, and Leong 2007). Research shows that ads deemed creative catch viewer attention, boost ad recall, and enhance persuasive appeals that drive purchase behavior (Bell 1992). Further, original print (Sierra, Heiser, and Torres 2012) and mobile SMS ads spawn favorable ad responses (Beneke et al. 2010), where unique online ads improve click-through rates and increase user interaction compared to their less novel and creative counterparts (Rosenkrans 2010, 2009).

Distinctiveness Theory

An assertion of distinctiveness theory posits stimuli with uncommon contextual components are detected more readily than worn stimuli (McGuire 1984); this stimulus paucity is context-specific, and in order for it to be viewed as distinctive, it must be distinguished by clear boundaries that separate it from other relevant stimuli. For example, ads with SMS-type copy or avatar spokespeople are uncommon in video games; therefore, their use represents a distinctive promotional strategy that may generate more favourable viewer responses, both cognitive and emotive, toward the ad and advertised brand than parallel ads with traditional language copy or human spokespeople.

Dual-Process Theory

As cognitions and emotions work jointly to influence choice during the decision making process (Hansen 2005), focusing solely on cognitive acuties or emotional responses as choice antecedents leaves meaningful variance unexplained (van Gelder, de Vries, and van der Pligt 2009). In this sense, dual-process frameworks provide a comprehensive view of decision-making processes by modelling both cognitive and emotive factors as choice precursors. Espousing this notion, research suggests that cognitive-based systematic models do not precisely describe how people decide; choice processes are more appropriately modeled by incorporating cognitive and emotive decision-making determinants (Finucane and Holup 2006). For example, researchers who assume that online golf tee times are made strictly based on green fees (cognitive appeal) fail to accurately capture consumer decision

processes. In addition to fair green fees (cognitive appeal), the ambiance of the website (e.g., color scheme) and golf course images portrayed (e.g., lavish greens and picturesque water holes) (both emotional appeals) influence golfers' intention to play a round of golf at a certain golf course.

Thought Experimentation

Naturalistic laws help us develop intuitions of physical possibility, which can be dissected via thought experimentation to reveal some of the very laws in which these intuitions are grounded; in this sense, thought experiments allege to answer (or raise) questions by sheer reflection of design (i.e., the 'what if' scenario) (Sorensen 1992). Accordingly, this data-free method is based on theoretical isolation; hence, thought experiments are nothing more than theoretical models (Mäki 2005). As such, one cardinal function of thought experimentation, namely constructive thought experiments (the focus here), is to provide support for, or dispute a theory, by making the theory's claims lucid (Brown 2011); therefore, thought experiments serve as a heuristic aid, appealing to our intuitions by giving us new insights about various ambits of inquiry (Brown and Fehige 2011).

As Boettke and Subrick (2002) posit, the most influential thought experiments are those of contrast (e.g., the mind's constant flux with using cognition or emotion decision-making determinants); they argue that the workings of the mind operate as a complex adaptive decentralized system. It's accepted that interconnectedness and coordination are essential in studying both the mind and the market, and although algorithms and artificial intelligence have been used to replicate such interplay, the human attributes of the brain

cannot be accurately captured in an actual real-time experience (e.g., dopamine levels cannot be mimicked by feeling-devoid technology at sporting events or casino venues). As a result, sound scientific explanation is unavailable; therefore, we turn to thought experimentation to aid in such numinous understanding (Boettke and Subrick 2002).

Proposed Method

Thought Experiment #1

The focus here is pointed toward the video game experience, specifically gamers' responses to video game ads. Entertainment or embedded marketing pertains to the strategy of inserting brands and/or brand references into entertainment outlets, such as seen in movies and video games; because of the seemingly impossible challenge of capturing real-world, real-time data regarding embedded marketing tactics, consumer behaviour research on this type of experiential consumption is lacking (Hackley and Tiwsakul 2006). Within the video game experiential view of consumption, key components include *interaction* (as in multi-player domains), *variability* (as no two games are identical), *rationality* and *emotions* (as in gamers' knowing when to lean on either brain function during play or how they respond to game stimuli), and *uncertainty* (as in outcomes of such games are not knowable beforehand) (Addis and Holbrook 2001). Within this phenomenological domain, differentiating between more hedonic and less hedonic-based decision processes is important in an effort to extend our understanding concerning this type of consumptive puzzle (Mäenpää et al. 2006).

Personalization is central to the experiential view of consumption (McIntosh and

Siggs 2005), such as tailored, unique ads being shown to targeted gamers during their video game experience. Although neuroscience offers insight about the chemical workings of the brain during exposure to marketing stimuli, such data collection takes place in artificial environments; for example, consumers are not strapped to neurological devices as they browse their local mall. Further, how gamers, while in play mode, respond to IGA in the comfort of their home is left to wonder. What if advertisers could tap into consumers' minds in real-time, while avoiding any sort of Hawthorne-type effects? How much more would they know about their targeted customers? Our thought experiment probes these questions.

Memory effects among others, readily lead to less than reliable data. Perhaps more importantly, research in interactive media environments suggests that actively engaged players may not consciously attend to many aspects of the visual environment; much of what they think and feel during the game, particularly as it relates to advertising and branded elements, is nonconscious and therefore not subject to recall (Brasel 2011). As it is, the only physiological evidence of arousal and presence on brand recall in video games was obtained measuring skin conductance levels (Jeong, Bohil, and Biocca 2011). In terms of viewers being exposed to distinct ads and their subsequent dopamine level activation (if any), advertisers and their brand managing counterparts operate in a world of mystery as to the true emotional and cognitive effects of such promotional tactics and attitudinal responses.

The proposed thought experiment here suggests measuring how gamers' dopamine levels vary based on promotional exposure. Using Kinect-type technology (i.e., wireless and

hand held device-devoid), brain activity is monitored in real-time as gamers are exposed to and view such ads; subsequently, the chemical workings of the gamer's brain are discerned. Although the ad literature is replete with evidence that novel or unique ads compared to common ads lead to more favourable ad responses, viewer dopamine variance in real-time under real-conditions when exposed to such ads is incalculable and therefore, unknown.

Higher dopamine levels would trigger robust hedonic responses (i.e., higher levels of emotive responses) whereas reduced dopamine levels would suggest less hedonic responses (i.e., higher levels of cognitive responses). Moreover, favourable (e.g., elated or excited) or unfavourable (e.g., disgust or anger) dopamine responses could be identified and adjusted for, as the game unfolded. It can be argued also, that as favourable dopamine levels are activated, the experiential value of playing the game increases for the gamer. Although ads are readily embedded in sport-related video games to enhance the realism of the game, developers of these promotional efforts are in the dark about how such ads truly influence gamers' emotive and cognitive responses toward such brands and the game developer for that matter.

In essence, this constructive thought experiment proffers how dual-process theory is at work when gamers are exposed to differing types of ads during play. When the time comes, if ever, advertisers would deliver, based on gamers' login and/or game registration data, and alter (if needed), based on dopamine responses, promotional stimuli during a game. So, a gamer who is Hispanic and a self-proclaimed avid golfer would be shown appropriate ads during his/her video game experience; such ads could be continued throughout the game experience if dopamine levels are triggered as expected; if dopamine

levels are not as expected, ads could be altered to show pet products and resort offerings for example, based on gamers' demographic data and personal interests. In this respect, how advertisers influence dual-process responses based on IGA would be executed with a level of appropriateness that currently is not possible, while ameliorating the experiential value of the game.

Thought Experiment #2

Just as the marketer's ability to insert and examine responses to product and brand placement was enhanced by the advance from analogue to digital media, so too will the technological advent of interactive television. Many of the differences between in-game advertising and in-show advertising are attributed to the interactive versus passive nature of the media (Brasel 2011; Walsh, Kim, and Ross 2008); technological advances affording unobtrusive data collection through dopamine level readings in real-time and two-way communication between viewers and advertisers would meaningfully alter the advertising and promotional landscape. We therefore envision a constructive thought experiment with regard to the promotion of complementary products wherein marketing theory may be finely dissected. Although researchers are beginning to look at effects of participating on-line, in interactive programming (Cauberghe and Pelsmacker 2008), the type of interactivity envisioned and, means of capturing real-time viewer dopamine response to ISA in our thought experiment goes well beyond current technology.

Where some of the player's preferences may be known through selection of props (e.g., branding the race car to be driven in a NASCAR video game) and some clues to the persona of the video game player may be available (e.g., selection of a hero in an action

game or selection of team in a sport game), unless the television viewer participates in a viewer panel (e.g., Nielsen) or a market research panel, none of the data collected by search engines on web users are available (at least to our knowledge) to the networks and service providers; nor are viewers' dopamine levels when exposed to ISA. However, in the proposed methodological, interactive-based setting, what is currently known or collected about the user's preferences could be applied to program offerings in real-time.

Yoon, Choi, and Song (2011) suggest a scenario where two movie viewers have entirely different responses to embedded brands in films, one positive and one extremely negative. In our proposed thought experiment, given current household products captured in real-time, not only could the negative brand attitude potentially be avoided, but data on the marketing of competitive and/or complementary products could be obtained. For example, in television shows or movie programming viewed by the consumer, known product preferences based on snapshots of household products and brands, such as soft drinks, snacks, and/or appliances, taken by Kinect-type technology, as captured during television viewing, could be inserted as appropriate into the behaviours of the protagonist or conversely, competitive products consumed by the antagonist. In this manner, viewers' dual-process responses could be explored, and preferential brand choice could be reinforced or angles of indifference between competing products could potentially be estimated.

Academic researchers would also have a treasure trove of unfiltered data to examine, such as advertising and promotional dual-process response, the value of product placement estimated, and theories of consumer choice tested. Perhaps more importantly, today, personal salespeople exist as the only communications mode employed by marketers

which essentially adapt and conform the product or service offering to the individual needs of the customer in the consultative, adaptive model of relationship selling (Spiro and Weitz 1990; Weitz, Sujan, and Sujan 1986). In the envisioned experimental environment, marketers capturing viewers' chemical activity in the brain during television viewing would enable effective customization or personalization of the persuasive appeal, promotional design, and placed product within the television program designed specifically to reach desired dopamine responses in viewers.

Discussion

Although quantitative and qualitative methods used to examine IGA and ISA effects are useful and justified, the data used in such investigation contexts are not error-free and are subject to self-report and social desirability biases; as such, what researchers think they gleaned from samples may not accurately reflect respondents' true attitudes. In this situation, just because subjects' responses were obtained, it does not mean the answers provided were true indicators of how they felt or thought at the moment of brand exposure or data collection. Because the research administrator could not tap into the respondent's mind in real time, unobtrusively, there is no way to know if in fact the data collected are truly representative of the respondent's emotions and cognitions. Because of these methodological limitations, experiential consumption is very difficult if not impossible to accurately measure, yet its importance to marketing managers should not be ignored (Palmer and Koenig-Lewis 2009). To evade such imprecision, thought experimentation was used to explore how the experiential consumption of IGA and ISA could influence dual-

process responses in gamers and viewers.

Our constructive thought experiments further support dual-process theory in an experiential consumptive setting. The advertising literature reveals that when compared to common or uncreative ads, ads deemed distinct or novel generate more favourable ad and brand-related responses. Thus, advertisers would be wise to capitalize on the benefits of creative-driven promotional campaigns. Leaning on novelty and distinctiveness theoretical frameworks, the proposed thought experiments suggest how gamers (viewers) respond emotively and cognitively to in-game (in-show) ads. Although neuroscience methodologies can measure such hedonic-laden or -lacking responses in artificial settings, in real-time under real conditions unfortunately, neuroscience cannot capture such data; in such naturalistic environments, subjects are not strapped to such dopamine measurement devices.

However, the proposed thought experiments yield insight to the dopamine workings of gamers' and viewers' minds when exposed to in-game and in-show promotional stimuli. As novel and distinct ads generate favourable advertising outcomes, we posit that dopamine levels and therefore emotive responses (toward such ads and brands) in gamers and viewers will increase when exposed to such ads during play and during show watching mode. Likewise, common and overused ads in similar settings will net lower levels of dopamine activation and therefore increase cognitive responses (toward such ads and brands) in gamers and viewers. As cognitions and emotions can be traced back to the chemical workings of the brain, the thought experiments here confirm the importance of gamers' and viewers' dual-process responses to the experiential consumptive nature of in-

game and in-show advertising.

For the most part, understanding consumers' response effect-determinants under a host of experimental settings lends useful insight to practitioners and researchers alike. Here, the ability to pinpoint the source of a larger or smaller effect size facilitates maturation of research streams and progression of theoretical understanding (Peterson and Jolibert 1995). Our constructive thought experiments aid in this methodological push by suggesting how dual-process responses, in the form of dopamine level activation, are influenced by the experiential nature of in-game and in-show advertising. As a result, ad researchers are better positioned to advance their IGA and/or ISA paradigms, as our method offers a theoretically-based, comparative rubric for evaluating the effects of in-game, in-show, and other constrained-setting promotional stimuli.

Future Research Direction

Our thought experiments suggest other avenues for advertising researchers to travel. For example, in addition to moving beyond measures such as ad recall, evaluating dual-process theoretical responses to ad stimuli in multiplayer gaming environments is worth exploring, as the bulk of IGA research centres on single-player contexts (Dardis and Schmierbach 2012). Regarding the experiential flow of this consumptive type, gamers' navigational choice is germane (Novak, Hoffman, and Duhachek 2003); here, during a game break or as a means to break away from a game, the gamer is able to click on a brand logo and/or ad and be directed toward brand-related information. When such opportunities arise and gamers click

on such links, how might they perceive and respond to such brands and promotional tactics while they are in game mode? How might categorical and/or attitudinal differences affect dopamine responses to IGA or ISA? For example, does a Hispanic risk seeker experience heightened levels of dopamine bustle when exposed to a distinct and relevant video game or television show ad compared to an Asian gamer or viewer who is more risk averse? Moving beyond IGA and ISA, would other contextual-constrained advertising (e.g., in-store advertising, website advertising, in-stadium advertising) generate varying dual-process responses? For example, how might end-of-aisle displays or stadium signage hinder or augment consumers' or fans' experiential consumption value? Would behavioural responses or dopamine activation differ based on the executional elements employed (e.g., fear or humour)?

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