Consumer experiences of virtual reality: Insights from VR luxury brand fashion shows

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ABSTRACT

Virtual reality (VR) offers a new medium for marketing communications, where consumers are immersed into technologically synthesized 'real-use' experiences of products and services. In this study, we theorize and investigate empirically how consumers derive meanings from VR experiences. Using the ZMET technique, we uncover three themes: VR as democratization, VR as embodied escapism, and VR as actualized anxiety. Our focus on the consumption meanings of VR experiences provides an illuminating entrée into the discussion of how this technology is likely to shape marketing communications and consumer behavior in the foreseeable future.

1. Introduction

One important technological innovation that is expected to impact the future of marketing and advertising practice greatly is virtual reality (VR). VR is formally defined as "the illusion of participation in a synthetic environment rather than external observation of such an environment. VR relies on three-dimensional (3D), stereoscopic, head-tracked displays, hand/body tracking and binaural sound. VR is an immersive, multisensory experience" (Gigante, 1993, p. 3). Although the earliest references to VR date back to the 1990's, it has been only recently that technological and socioeconomic developments have allowed "VR to evolve from a niche technology mainly enjoyed within the gaming communities into the realm of everyday experiences" (Tussyadiah, Wang, Jung, & tom Dieck, 2018, p. 140). Indeed, with the rise of highly sophisticated and affordable personal devices, such as *Samsung Gear VR* and *Oculus Rift*, VR is now a 'part of the mainstream consumer consciousness' with the headset market estimated to reach 81.2 million units by 2021 (Lamkin, 2017).

Against the backdrop of this rising mainstream popularity, there have been pioneering discussions about how VR – as a novel and experientially distinct medium of communications – can augment current and future marketing communications strategies. At the broadest level, by virtue of offering a highly immersive media environment that was absent previously, VR enables marketers to stage rich consumer-centric experiences beyond what is possible within the boundaries of traditional media (Guttentag, 2010; Ahn & Bailenson, 2011; Tussyadiah

et al., 2018). Not surprisingly, the emerging practical applications of VR in marketing communications are most evident within the experience-intensive industries, such as computer gaming, tourism, and fashion (Guttentag, 2010; Huang, Liaw, & Lai, 2016; Ahn, Bailenson, & Park, 2014; Tussyadiah et al., 2018). However, even within these specialized domains, extant theory with regards to how consumers experience VR communications and what this entails for the future of advertising practice is underdeveloped.

Previous studies have focused largely on exploring the role of 'presence' within VR – defined as the psychological state of feeling that the virtual experience is real (Heeter, 1992; Lombard & Ditton, 1997). For instance, Tussyadiah et al. (2018) found that heightened presence in VR enhances enjoyment, attitudes, and visiting intentions in the context of tourism marketing, whereas Grigorovici and Constantin (2004) discuss how presence heightens brand recall in VR computer games. In a more general context, Ahn and Bailenson (2011) show that the sense of presence, manipulated as a function of low- and high-immersive VR environments, moderates the effect of self-endorsing. However, beyond these psychological effects of presence induced by the technological affordances of VR, we have only a limited, broad-brush sense of how consumers experience VR, and what consumption meanings they construct post-experiences.

The purpose of this paper is to broaden our perspective regarding VR marketing communications and consumption experiences. Specifically, we shift the focus away from the technological affordances of VR *per se*, and towards the complex experiential cultural gestalt (Thompson, 1997)

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of virtuality, technological discourses, and interpretive strategies that underscore the mental models of VR consumption (Christensen & Olson, 2002). In this endeavor, we are informed by two streams of research: socio-cultural discourses of cyberspace consumption (Buchanan-Oliver, Cruz, & Schroeder, 2010; Ko, Ko, & Chun, 2017; Zhang and Dholakia, 2018; Bridges, 2018; Shin, Chae, & Ko, 2018; Kim, Kang, & Taylor, 2018) and the ontological properties of the digital virtual (Shields, 2003; Denegri-Knott & Molesworth, 2010; Guercini, Bernal, & Prentice, 2018; Mir-Bernal, Guercini, & Sádaba, 2018; Bonilla, del Olmo Arriaga, & Andreu, 2019).

The specific research objective of our study is to illustrate how the socio-cultural background of utopian and dystopian discourses (Buchanan-Oliver et al., 2010; Lee, Ko, Chae, & Minami, 2017) underscores the consumption experiences of modern VR communications, which take place 'in-between' the ontological categories of the virtual and the material (Denegri-Knott and Molesworth, 2010; Kim, Ko, & Kim, 2018). Our empirical investigation employed the ZMET approach (Zaltman & Coulter, 1995; Coulter, 2006; Venkatesh, Joy, Sherry, & Deschenes, 2010), an analytical technique that uses qualitative data based on visual images that are interpreted by consumers, and adopts a hermeneutic model of experiential gestalt (Thompson, 1997) in order to make sense of the emerging emic (first-person) meanings ascribed to VR experiences by consumers.

In this endeavor, twenty participants from South Korea experienced a staged VR luxury brand fashion show, and were asked to reflect on their experiences using several of the procedures of Zaltman Metaphor Elicitation Technique (ZMET) interviewing method (Coulter, 2006). We then analyzed the interviews using a hermeneutic approach that elicits consumption meanings describing the experiential gestalt (Thompson, 1997). Our analysis revealed three themes: VR as democratization, VR as embodied escapism, and VR as actualized anxiety. These themes underscore complex imagery and ambivalence in respect of the way consumers interpret VR experiences, whereby the emergent consumption meanings are permeated with both utopian and dystopian themes, and further intertwined with notions of being 'virtual' or 'material'. Important theoretical and practical implications regarding the role of VR technologies in digital virtual consumption (Denegri-Knott and Molesworth, 2010), consumer culture (Arnould & Thompson, 2005), and VR marketing communications practice (Guttentag, 2010; Ahn & Bailenson, 2011; Tussyadiah et al., 2018) are discussed at the end.

2. Theoretical framework

2.1. Cultural discourses of cyberspace consumption: Utopian and dystopian

A stream of consumer culture research (Arnould & Thompson, 2005) posits that consumption experiences are culturally-constituted. That is, consumers make sense of their experiences against the socio-historical background of cultural categories, common sense beliefs, folk knowledge, myths, and other historically available frames of reference, which make an experiential gestalt intelligible and meaningful (Thompson, 1997). Put differently, rather than approaching a meaning-making process with a 'clean state', our inter-operation of experiences is framed within relevant socio-cultural discourses and personal histories that are salient in a given consumption context.

While VR has only recently begun to emerge as a mainstream communication device, the socio-cultural discourses depicting the 'future' role of VR-like cyberspace technologies have been popularized for decades. Consider, for instance, the plethora of sci-fi books (e.g., *1985's Ender's Game*), motion pictures (*The Matrix from 1999*), and even advertising commercials (*Apple Macintosh, 1984*), which portray the role of VR as a mass-communication device that changes consumers' lives in the future. Albeit one may argue that these cultural narratives pre-date modern devices and, therefore, have very little in common with what VR consumption entails today, consumer culture researchers have

repeatedly shown that such socio-historically routinized discourses, can exert powerful influence beyond their factual applications on how people interpret their consumption experiences (Stern, 1995; Thompson, 2004; Buchanan-Oliver & Seo, 2012).

Several interdisciplinary studies that discuss the socio-cultural representations of technology consumption (Foucault, 1973; Hayles, 1999; Buchanan-Oliver et al., 2010; Lee, 2017) are particularly informative for the purposes of our study. Buchanan-Oliver et al. (2010) identify the prevalence of oppositional discourses regarding the way cyberspaces have been portrayed in consumer culture. On the one hand, cyberspaces are often conceived as utopian spaces of emancipation, where VR technology creates the idealized 'public sphere', which is not dominated by the state or powerful economic organizations (Buchanan-Oliver et al., 2010). Indeed, consider the plot of a recent motion picture and the novel of the same name – *Ready Player One* – featuring an underprivileged protagonist who defeats a powerful commercial organization within the boundaries of VR, where 'anyone can do anything'. In a similar vein, the emergence of other cyberspaces, such as content communities (e.g., *YouTube*), collaborative projects like *Wikipedia*, and virtual game worlds such as *World of Warcraft*, is often framed as the flattening of traditional marketing institutions and the enablement of consumer empowerment (e.g., Kaplan & Haenlein, 2009; Seo, 2013).

On the other hand, there are also oppositional, dystopian, discourses surrounding the role of cyberspaces. As Buchanan-Oliver et al. (2010, p. 643) note, "[cyberspace] technologies can also be seen as a disciplinary apparatus for the production of docile bodies in the interests of powerful institutions", whereby they perpetuate surveillance and subjugate people to act according to "the requirements of the machine". Contrary to imagining cyberspaces as a space of unlimited freedom, these narratives depict VR technology as a totalitarian power that takes people's freedom away and replaces it with a mere illusion (Robins, 1995; Barzilai-Nahon, 2006; McGowan, 2013). Popular cultural texts that actualize this view include cult-like motion pictures, such as *Terminator* and *Matrix*, which portray dystopian futures where machines rule over people. Beyond popular culture, there are growing and more material concerns about the protection of consumers' privacy in modern cyberspaces including the Internet more broadly, which also uphold the dystopian view of technology performing surveilling and controlling functions (e.g., Fuchs, 2013).

The discussion above raises interesting questions for developing a more holistic insight into VR consumer experiences: given the importance of socio-cultural discourses in framing consumption meanings (Thompson, 1997; Arnould & Thompson, 2005), what role do these conflicting utopian and dystopian themes about cyberspaces play within the emergent consumer experiences of VR marketing communications?

2.2. Ontological category of digital virtual: hyper-virtual and hyper-material

While the socio-cultural discourses of cyberspace consumption point toward the prevalence of oppositional themes that may provide a cultural frame for the ways consumers make sense of their VR experiences (Buchanan-Oliver et al., 2010), such experiences are also underpinned by the ontological structure that inhibits the notions of 'real' and 'possible', and 'ideal' and 'actual' (Shields, 2003, 2006; Denegri-Knott & Molesworth, 2010). This structure heightens the meaning of the term 'virtual', and of the ways VR experiences can be juxtaposed against, and related to, our experiences in the physical world.

Specifically, the concept of 'virtual reality' is as old as humanity, because cultural rituals, literature, games, and even brands can be all viewed as different manifestations of virtual realities that predate VR (Shields, 2003, 2006). This is because beyond equating the material to 'real' and the virtual to 'not real' or 'possible', the ontological category of 'the virtual' can be, instead, conceived as taking place within imagination as the 'ideal' – beyond the 'actual' material reality – which retains the properties of being 'real' (Shields, 2003, 2006). Indeed, brand

meanings that exist within consumers' minds are not material; yet, very few marketers would argue that they are 'not real' (Denegri-Knott & Molesworth, 2010). This implies that the virtual *is* real; but that it refers to the specific aspect of reality that is 'ideal', imagined, or as Shields (2003; 2006) calls it, the 'ideal-real'. In other words, the virtual refers to what we imagine a reality (such as an imagined product concept) to be, rather than what this reality represents in its material actualization (as a physical good). Further, Shields (2006, p. 285) notes that the process of actualization – turning the virtual into the material – is a performance where the virtual constitutes a capacity to be actualized into a single material object; at the same time, however, the virtual is also a multiplicity which can be actualized in different ways: "If it [the virtual] is known by its effects, then it is known through a specific instantiation, not as a whole. It thus retains its creative character as an ontological category pertinent to discussions of change, becoming… the genetic power of codes as well as of codings themselves".

Informed by this ontological category of 'the virtual', Denegri-Knott and Molesworth (2010) term the consumption practices occurring within computer-mediated environments – including VR – as digital virtual consumption, noting that it takes place 'in-between' the strictly virtual and the material categories. On the one hand, seeing or using a product in a cyberspace does not occur merely by the virtue of consumer imagination; hence, such an experience is not merely virtual. On the other hand, this experience is also not strictly material, as the objects (e.g., products) experienced within cyberspaces lack important material properties such as weight, and they cease to exist outside the boundaries of a cyberspace. Thus, Denegri-Knott and Molesworth (2010) conclude that digital virtual consumption can be viewed as a form of material actualization of the virtual, but where consumers are less constrained by the boundaries and laws of the material that underpins our physical consumption.

This conceptualization of digital virtual consumption as occurring in an 'in-between' space between the virtual and the material has important implications for deepening our understanding of VR experiences and of their ontological properties. On the one hand, the sense of presence within VR environments – which has received extensive attention from previous studies (e.g., Ahn & Bailenson, 2011; Tussyadiah et al., 2018) – can be viewed as heightening *the materiality* of VR consumption. The previously reported moderating role of presence on the effect of self-endorsing in VR advertising (Ahn & Bailenson, 2011), for instance, could be interpreted as consumers feeling that their experiences of self-referencing in VR traverse beyond the boundaries of their cyberspace. In other words, VR experiences – by the virtue of offering a 'realistic' simulation of physical reality – may feel to be more actual and, therefore, material.

On the other hand, VR environments also heighten 'the virtual' of consumption experience – by expanding repertoires of available resources and strategies for evoking consumer imaginary (Martin, 2004; Denegri-Knott & Molesworth, 2010). In particular, the simulated consumption experiences within VR – such as being able to defy the rules of physical reality by stopping or going back in time, for example, or by revisiting an experience, or even to imagine entirely new realities in computer-generated game worlds – empower consumers to expand the boundaries of their imagination and to include into the virtual what was previously only probable and abstract (Shields, 2006; Denegri-Knott & Molesworth, 2013). Thus, we consider VR experiences to be both '*hyper*'-material and '*hyper*'-virtual, borrowing the suffix '*hyper-*' from postmodern theorists (Baudrillard, 1983; Foucault, 1973), who view the hyper to be more real than 'real' and argue that: "when the real that is the environment, is no longer a given, but is reproduced by a simulated environment, it does not become unreal, but realer than real" (Atwal & Williams, 2009, p.340).

Accordingly, another important question that arises from the discussion above is: what does being hyper-material and hyper-virtual mean in the context of VR marketing communications? Further, whether and how do these ontological properties intertwine with the utopian and dystopian cultural discourses within consumer experiences of VR?

3. Methodology

3.1. Theoretical approach

The concept of experiential gestalt and the hermeneutic model of meaning construction (Thompson, 1997) offer a useful methodological approach to explore how the two streams of theorizing (technological discourses and ontological properties) can be integrated to enable us to derive useful insights about the consumer experiences of VR communications. The gestalt theory of perception posits that an image that is salient in a person's perceptual field "emerges in a codetermining relationship to a contextual background […thus,] the perceptual totality is a dynamic perceptual relationship that presents multiple configurations of part-to-whole relationships" (Thompson, 1997, p. 446). In the context of consumption meanings, this perspective posits that a given consumption experience conveys multiple possible interpretations that are dialectically intertwined with the contextual background, wherein we focus on the socio-historical discourses of cyberspace consumption (Buchanan-Oliver et al., 2010) and the ontological properties of the digital virtual (Denegri-Knott & Molesworth, 2010). Thus, in querying consumption experiences of VR, our focus is on how the emergent emic consumer interpretations of VR experiences are both enabled and constrained by these two broader etic (theoretical) conventions (Belk, Wallendorf, & Sherry, 1989).

3.2. Data collection and analysis

Our study employs a modified ZMET (Zaltman Metaphor Elicitation Technique) method to explore consumer experiences of VR communications (Zaltman & Coulter, 1995; Christensen & Olson, 2002; Coulter, 2006; Joy, Sherry, Venkatesh, Wang, & Chan, 2012). This method has been used widely by consumer researchers to understand how cultural concepts and cognitive principles are intertwined within consumer interpretations of their experiences (Joy et al., 2012). ZMET is based on a semi-structured, in-depth interview technique; it is, however, centered on probing visual images that participants bring to the interview (see Coulter, 2006 for details). "Since ZMET data is informant-driven rather than researcher driven, the ZMET interview affords researchers an opportunity to have consumers more freely express and expand on their thoughts and feelings, attitudes and perspectives" (Coulter, 2006; p. 400). Further, it is particularly useful for probing participants' perceptions regarding abstract concepts and representations, such as their feelings and immersive experiences, because it allows participants to project these abstract concepts by connecting them to metaphors and visual images (Zaltman & Zaltman, 2008).

The context of our investigation is consumer experiences of virtual luxury brand fashion shows. Virtual fashion shows have emerged as a novel form of VR marketing communications in the fashion industry, whereby consumers are able to experience the brand's prerecorded catwalk show using their personal VR devices. It has been adopted by several luxury fashion brands such as *Louis Vuitton, ELLE* to utilize the new technological capabilities of VR in marketing communications. For the purposes of this study, we recruited twenty participants from Seoul, South Korea who were interested in fashion (given the context of our investigation), but had limited or no previous experience of VR. A brief profile of participants is presented in Table 1. We employed a two-stage process. At the first stage, we invited participants into a research lab, and asked them to watch a pre-selected fashion show using a VR headset device. Following this, we asked them to come back one week later for the second stage. In preparation for this second stage, participants were asked to find six to seven images that reflected their thoughts and feelings associated with the VR experience of the fashion show that they watched. At this stage, we interviewed the participants using several

Table 1
Brief profile of participants.

Participant No	Age	Gender	Education	First VR Experience
1	26	Male	College	No
2	27	Male	Postgraduate	Yes
3	29	Female	Postgraduate	No
4	26	Female	College	Yes
5	26	Female	College	Yes
6	27	Female	Postgraduate	No
7	27	Female	Postgraduate	No
8	25	Female	College	Yes
9	27	Female	Postgraduate	No
10	29	Male	Postgraduate	No
11	33	Male	Postgraduate	Yes
12	38	Female	Postgraduate	Yes
13	30	Male	Postgraduate	No
14	23	Female	College	Yes
15	27	Female	Postgraduate	Yes
17	24	Male	College	Yes
17	24	Male	College	No
18	26	Male	College	Yes
19	30	Male	College	No
20	25	Male	College	No

components of the ZMET method (Coulter, 2006). Participants were asked to relate how each image represented their thoughts and feelings about the VR experience (storytelling). They were also asked to widen the frames of the pictures they had selected, and to describe what else might enter the pictures, or if any pictures were missing (metaphor probing / missing images). All interviews were recorded and transcribed.

NVivo software was used for coding and reorganizing the collected data prior to further abstraction. To better understand emerging themes, we employed a hermeneutic framework of interpretation (Thompson, 1997). This framework perceives consumption stories derived from interviews to reflect the experimental gestalt of meanings ascribed by a participant to particular objects or events (e.g., a VR experience) (Thompson, 1997). Further, while these meanings provide 'thick' descriptions of participants' personal experiences, they are also perceived to be contextualized within the broader contextual background of relevant conventions salient to a given consumption context (Thompson, 1997). Such an approach was deemed to be useful, because it enabled us to gain a deeper understanding of how the emergent consumer interpretations of VR experiences are reflective of the intersection between socio-cultural discourses of cyberspace consumption and ontological properties of the digital virtual. The analysis involved close readings of the transcripts, through which we identified central themes, and developed provisional categories and conceptual connections, which aided our subsequent induction of the broader underlying themes about the consumption meanings of VR experiences. The themes were refined until we were satisfied that they were captured in the quotes (Spiggle, 1994), and we present them in their final form in our findings.

4. Findings

Three themes emerged from our analysis: (1) VR as democratization (2) VR as escapism, (3) and VR as actualized anxiety. Under each theme, we present several selected illustrative excerpts from the interviews and visual images that were sourced from our participants (see Fig. 1a–k).

4.1. VR as democratization

One distinct property of VR communications that emerged from our study was that VR experiences can democratize and commodify even the most exclusive physical consumption experiences. Consider the following excerpt from Participant 4 (female, 26 years old):

"I felt like I was the main character in the VR fashion show. It's hard to buy regular tickets, and it's impossible to get a good seat. However, this [VR] was a special experience…I felt though it was a show exclusively for me, because I had the front row seat. It's like having the queen's privileges (Fig. 1a)"

Participation in fashion shows has traditionally underscored the hierarchal relational positions in the field of luxury fashion consumption, whereby such participation signifies the exclusivity and status privileges of VIP participants (Entwistle & Rocamora, 2006, Fionda & Moore, 2009; Burns, Hutchins, & Mathisen, 2019). VR fashion shows democratize this privileged consumption by making it available to everyone within the boundaries of virtual reality. Our findings reveal that this process of democratization engenders ambivalence in terms of how consumers ascribe personalized meanings to their VR experiences of fashion shows. On the one hand, VR experiences heighten the participant's feelings of importance (e.g., acquiring status). As Participant 4 notes, experiencing a fashion show through VR made her feel as if she had *"the queen's privileges"*, because it offered her access to consumption that is inaccessible to her in the physical world. A similar response was noted by other participants. For instance, Participant 13 (male, 31 years old) revealed that he *"felt like a celebrity"* (Fig. 1b). This theme of acquiring higher status and becoming someone else is consistent with Denegri-Knott and Molesworth (2010) notion that digital virtual consumption can actualize experimentation, whereby consumers can temporarily adopt new subject positions (e.g., to become a VIP).

On the other hand, and more interestingly, we found that the same notion of democratization elicits a sense that consumers feel more 'equal' within the boundaries of VR, because everyone possesses the same – seemingly unlimited – access to the restricted 'exclusive' consumption events of the physical world:

"Watching VR makes people equal, like a balancing of the scales (Fig. 1c) […] When I visited the fashion show myself [by VR], I did not see famous people and had no idea how they enjoy fashion shows [before], but now I know I learned how to enjoy social status in cultural events, and I had the experience of participating in cultural events, so I think VR makes people and celebrates the same." Participant 6 (female, 27 years old).

This notion is evident within Participant 6′s metaphoric association that VR makes *"people equal like a balancing of the scales"* (Fig. 1c), because regardless of whether you are a celebrity or a graduate student, VR communications enable you to experience fashion shows as the same (VIP) participant.

Thus, our first theme of VR as democratization reflects the utopian discourse of emancipation (Buchanan-Oliver et al., 2010), where VR liberates consumption experiences from social and market institutions by making them available freely to everyone. In this way, VR communications are perceived to dematerialize and, thus delegitimize social hierarchies that exist in the physical world. In the context of virtual fashion shows, exclusivity ceases to exist as a limited resource that is available to the 'happy few', and emerges as a commodified resource that is available to the 'happy many'.

Further, a close examination of this emancipation reveals that it emerges as an intricate process of idealizing the material into the virtual which, in turn, actualizes into a new form of the material (Shields, 2003). That is, the physical consumption of fashion shows has previously constructed exclusivity both virtually (imagined as exclusive) and materially (through limited availability) (Entwistle & Rocamora, 2006). VR experiences of fashion shows, however, sustain only the virtual properties of such exclusivity (i.e., they are still imagined as exclusive) and, instead, acquire a new form of materiality – whereby this consumption becomes accessible to everyone and, therefore, it is no longer (materially) actualized as exclusive. In other words, VR communications emerge as an agent of 'democratized exclusivity' with distinct material properties.
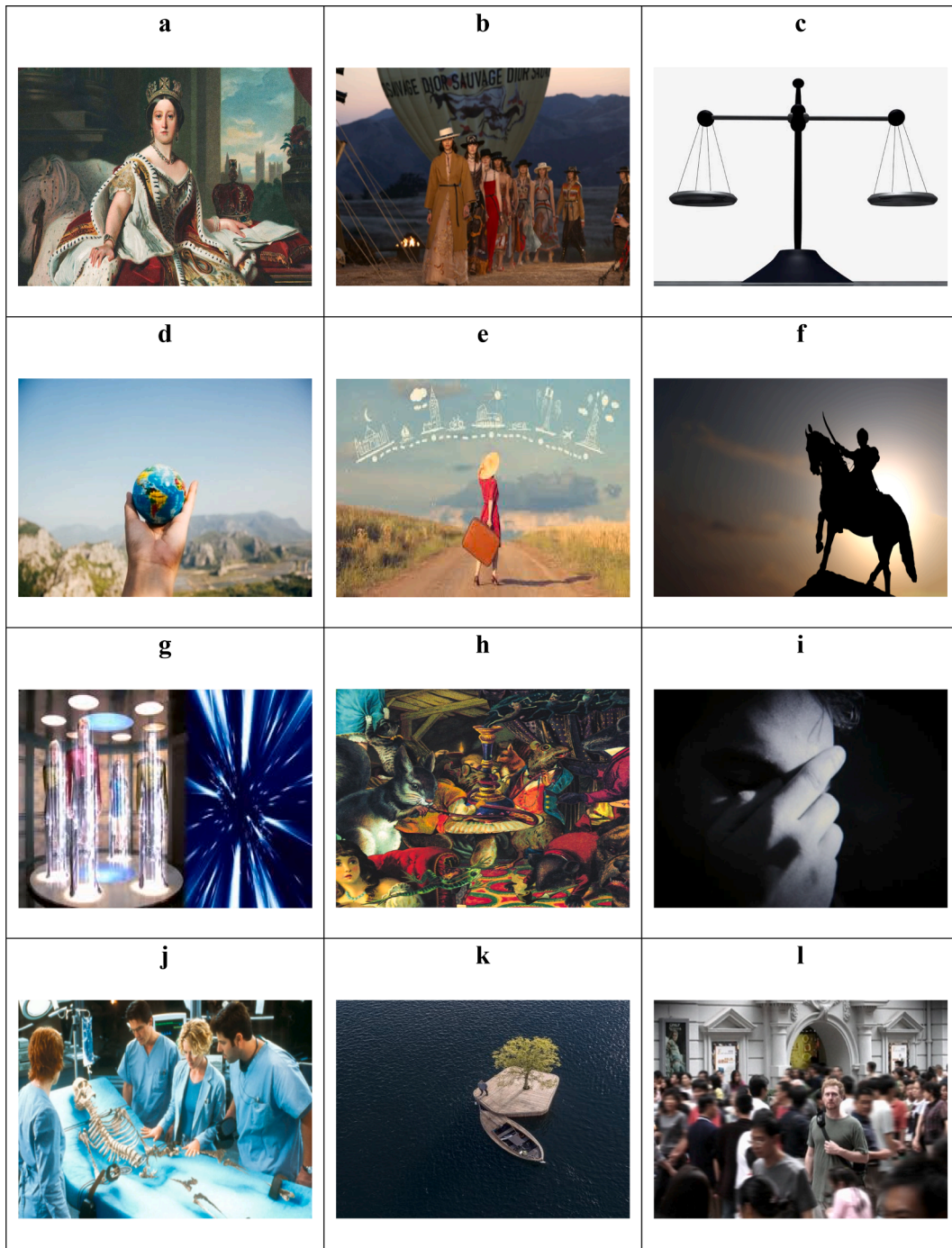
Fig. 1. Selected participant images.

4.2. VR as escapism

The second related theme that has emerged from our findings is the notion of VR as escapism. Escapism refers to experiences that fulfil consumer desires to relieve themselves of the mental burdens of their ordinary lives (Hirschman, 1983; Cruz, Seo, & Buchanan-Oliver, 2018). Previous studies note that escapism is an important motivation for use of virtual worlds (Verhagen, Feldberg, van den Hooff, Meents, & Merikivi, 2012). Our findings reveal that, similarity to our results for democratization, VR as escapism reflects the utopian discourses of emancipation. Yet, this form of emancipation is qualitatively distinct, because it denotes the consumers' personal escapes from the ordinary rather than a means of dematerializing social hierarchies:

"With VR, I felt that I could feel free to go anywhere without physical movement and feel like I could experience it all (Fig. 1d). I have a busy life and I have limited time. So, when you need a healing, you want to go on a trip […] – when I look at the fashion show with VR, I think that it could help the stress to go away." Participant 7 (female, 27 years old).

"I imagined that I could travel through VR. I felt it was similar to going away like in the photo I chose (Fig. 1e) – like I imagined I wanted to be healed. I experienced a virtual space that seems to be able to heal my heart, and I actually have a desire to go to this place" Participant 5 (female, 26 years old).

In the excerpts above, both Participant 7 and Participant 5 note that

VR experiences are intrinsically enjoyable and facilitate escape from their daily routines. Our findings further illustrate that the properties of VR – which allow this medium to expand available resources for evoking consumer imaginary (Martin, 2004; Denegri-Knott & Molesworth, 2010) – play an important role in constructing escapism. For instance, Participant 7 highlights that VR enables her "*to go anywhere without physical movement*" and "*experience it all*", which is a unique virtual aspect of VR experiences. In the same vein, when Participant 4 (female, 26 years old) discussed her escapism experiences, she noted that she felt like a "*conqueror*" in VR (Fig. 1f): "*I could control everything as I want. In VR, I could set my visual orientation seeing only what I want to see. I don't have to see what I don't want. I could look up and down and I felt like I became a conqueror*". On the other hand, Participant 3 (female, 29 years old) conjured the images of teleportation (Fig. 1g), noting that "*When I put on a VR headset, I felt like I was teleported to a different space. I think it is interesting and fun*".

Thus, beyond democratization, VR communications offer emancipation by providing resources for evoking and thematising consumer imagination. In so doing, VR communications expand the virtual (Shields, 2003) and actualize consumer fantasy (Denegri-Knott & Molesworth, 2010; Martin, 2004). Hence, VR emerges as an agent of embodied escapism.

4.3. VR as actualized anxiety

Contrary to the themes of democratization and escapism, our last theme of VR as actualized anxiety reflects the dystopian notion that cyberspaces can produce 'docile bodies' (Foucault, 1973; Buchanan-Oliver et al., 2010). Within this theme of VR experiences, we found that consumption meanings reflect anxiety, loneliness, and even fear:

"I chose this picture because VR felt complicated to me. I wanted to show a collection of nonsensical elements that represent how anxious I felt (Fig. 1h). VR is a new technology that could make our lives better just like the Internet and mobile phones did, but we also have to think about the fact that it could bring some negative aspects to our society. I wanted to show how conflicted and concerned I became while watching the VR content." Participant 7 (female, 27 years old).
"I felt alone (Fig. 1i). My response to the experience of VR started as fear and moved on to loneliness. In the end, it made me realize that I cannot have any interactions with people or objects in the VR and I felt lonely". Participant 1 (male, 26 years old).
"The last picture [of those this participant brought to the interview] is a picture of the main character turning into a ghost in the movie 'Hollow Man' (Fig. 1j)… I think when I entered the virtual space through immersion I felt pleasure, but in the end, I think that there is an alienation and anxiety that makes you feel like a ghost – that does not exist in the real world." Participant 13 (male, 31 years old).

A close reading of these consumer interpretations reveals that the anxiety arising from VR experiences has been often framed against the cultural backdrop of popularized dystopian discourses, such as the motion picture *Hollow Man* brought by Participant 13.

Further, we found that these dystopian discourses become actualized for consumers as a result of VR experiences having a liminal position between the virtual and the material, such that consumers experienced them as being ambiguous with regards to their material properties. That is, our participants noted that VR experiences felt very proximate to their physical world experiences in terms of some aspects of their materiality – for example, their vividness – but not in other ways such as the social interactions they lacked. Both Participant 1 (Fig. 1i) and Participant 7 (Fig. 1k) noted that it is the absence of 'actual' (i.e., material) social interactions with people and objects (compared to the physical world) that made them feel lonely in VR. Similarity, Participant 8 (female, 24 years old) commented: "*I was excited at first [watching a fashion show], but over time, I felt fearful. It made me think that I existed in VR, but*

everyone passed me by like I wasn't there. VR experience made me feel that I was standing in the space alone. I felt lonely" (Fig. 1l). In short, VR communications, due to their illusive materiality, actualize participants' anxiety with regards to how cyberspaces may become a dystopian, totalitarian power that takes consumers' freedom away and replaces it with a mere illusion.

5. Discussion

Although previous studies have explored the psychological experiences induced by VR technology extensively, our paper offers an alternative perspective by focusing on the role of socio-cultural discourses and ontological properties. In doing so, we offer novel insights into how consumers experience VR marketing communications. Our empirical investigation using the ZMET method reveals that VR experiences induce ambivalent meanings that consumers construct post-experience. On the one hand, these consumption meanings reflect positive feelings of joy, excitement, freedom and escape from social hierarchies and market institutions, which fosters a sense of empowerment within the VR environment. As Participant 4 noted, she felt like a conqueror because everything was under her control, even the 'reality' itself. On the other hand, we also found that VR experiences can elicit feelings of anxiety, loneliness and fear, making consumers resist VR technology. We illustrate that these quasi-oppositional consumer interpretations of VR communications are reflective of both the utopian (democratization and escapism) and dystopian (anxiety inducing) cultural discourses that permeate technology consumption (Buchanan-Oliver et al., 2010).

Further, we found that these utopian and dystopian themes within VR consumption become idealized and actualized by the virtue of the unique ontological properties of VR. That is, the liminal position of VR against 'the virtual' or 'the material' fosters a set of interpretive strategies that assist consumers with sense-making of VR communications. For instance, the sense that VR is an agent of democratization is enabled by maintaining the virtuality of physical experiences (i.e., exclusivity) and by further actualizing this virtuality into a new sense of materiality that exists only within the boundaries of VR environment – 'exclusivity for everyone'. On the other hand, VR escapism becomes imagined by expanding the boundaries of the virtual – the user can go anywhere without physically moving – whereas anxiety becomes actualized as a result of misalignment between the material properties of VR and the physical world, such as the lack of social interactions. Thus, the ontological properties of hyper-virtual and hyper-material within VR environment underscore the consumer experience and interpretation of utopian and dystopian themes.

The theoretical tenets discussed above have several practical implications. First, previous studies have focused largely on the positive aspects of VR experiences (Ahn & Bailenson, 2011; Tussyadiah et al., 2018). We draw attention to the potential of VR communications to elicit negative responses. We further interpret such experiences to be related to the cultural discourses of utopia and dystopia (Buchanan-Oliver et al., 2010). This means that managers should pay close attention to the contextual topography of cultural narratives related to VR consumption. At the broadest level, this could mean avoiding intertextual connections between VR consumption and dystopian themes, such as product placement in narratives depicting an apocalyptic future, or fostering stronger associations with utopian themes of consumer empowerment and emancipation.

Further, since consumer anxieties within VR arise due to the misalignment between the realism of some aspects of the experience, such as its vividness, and the absence of other aspects such as the absence of social interactions VR properties, it would be important to reconcile this misalignment in order to maximize VR's potential as communications tool. For instance, managers could consider whether technological affordances allow them to decrease VR's vividness to imbue it with social interactivity. In addition, the use of effective disclosures prior or during VR experiences, which can moderate the effect

of narrative transportation (Seo, Li, Choi, & Yoon, 2018), could be useful in reducing consumer anxieties.

In respect of the study of VR experiences, we recognize that the three themes described in our study are illustrative and may not be exhaustive. Our key purpose was to draw attention to the fact that the ontological properties of VR experiences and cultural discourses, many of which have predated the modern emergence of actual VR consumption, offer an important lens to gain a more holistic understanding of post-experience consumption meanings. For instance, further questions may arise as to whether there are other cultural discourses that permeate VR consumption, and whether they may change over time and across different cultures. We also recognize that there could be individual differences in the ways consumers frame VR consumption. Thus, future research could explore whether people's expertise and knowledge about VR, previous personal experiences with other emerging technologies and general technological savviness, may influence their interpretation of VR experiences. Finally, we investigated VR consumption in the specific context of fashion shows. Therefore, it would be interesting to compare whether the influence of cultural discourses and ontological properties might be different across different consumption settings, such as pop-up retailing stores (Warnaby & Shi, 2019) and tourism (Tussyadiah et al., 2018).

In conclusion, we hope that this pioneering study, with its focus on a more holistic consumer experience-centered (as opposed to technology affordances-centered) investigation of the roles played by cultural discourses and ontological properties within VR experiences, will generate interest in consumer behavior and marketing communications issues relating to the use of VR experiences.

Acknowledgement

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