Inhabiting the image of *Collisions*: Virtual reality cinema as a medium of ethical experience

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Abstract

Many early cinematic virtual reality projects were dominated by a "demo-aesthetic," focusing primarily on the expressive potential of the medium as opposed to an interventional purpose as an ideologically charged artwork. However, recent films by artists such as Lynette Wallworth, Chris Milk, Gabo Arora, and Felix & Paul have utilised the unique expressive and immersive properties of virtual reality to capitalise on the political and ethical capabilities of this new mode. This article seeks to examine virtual reality's potential as a medium of ethical experience, through a critical examination of Australian virtual reality artist Lynette Wallworth's *Collisions* (2015). *Collisions* tells the story of Nyarri Morgan's firsthand encounter with the effects of nuclear testing in the South Australia desert in the 1950s. As a virtual reality experience, the film utilises aspects of presence to engage the spectator in an ethical understanding of the consequences of Morgan's witnessing, and the effects of the nuclear testing in relation to the Martu people's stewardship of the land. This ethical inhabitation is assisted by the altered spatial and temporal dynamics in the experience of the virtual reality spectator.

Keywords

Virtual Reality; Cine-ethics; Documentary; Presence

In recent years, film theory has undergone related affective and ethical turns. The affective turn correlates to the increasing focus on affect, emotion, subjectivity and the body, while the ethical turn sees theorists considering how the cinema may constitute an aesthetic encounter that can forge a variety of ethically significant experiences. To examine the relation of the affective and the ethical, theorists such as Robert Sinnerbrink have attempted to build connections between phenomenological and cognitivist approaches, while also acknowledging the importance of contributions to the field of cine-ethics from philosophy, empirical psychology, neuroscience, and

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evolutionary biology (82). This article seeks to further this consideration of the interrelation between cinema's affective and ethical capacities by turning to the burgeoning new field of cinematic virtual reality; specifically, Lynette Wallworth's 2015 virtual reality short film *Collisions* as an exemplar for how the medium of virtual reality may reconfigure some of the existing conceptions around the ethico-aesthetics of cinema. This consideration of cinema as a "medium of ethical experience" is informed by what Sinnerbrink identifies as its "transformative potential to sharpen our moral perception, challenge our beliefs through experiential means, and thus enhance our understanding of moral-social complexity" (17).

The relatively primitive space of cinematic virtual reality has found many virtual reality artists wrestling with how much this new mode can draw from established cinematic paradigms, such as linear narrative progression, techniques of montage, and emotional engagement via identification with diegetic characters. There is, in many of these early creative works, a reductive move back to the concept of the frame, as filmmakers attempt to manipulate and control the viewer's attention. What appears to be common to the more successful conceptualisations of this new mode is the abandonment of the cinematic frame in favour of rethinking the spectator's experience in terms of enhancing a sense of presence, defined by virtual reality scholars as:

> *[A] psychological state or subjective perception in which even though part of all of an individual's current experience is generated by and or filtered through human-made technology, part of all of the individual's perception fails to accurately acknowledge the role of the technology in the experience. (The Concept of Presence)*

By emphasising the role of presence, virtual reality filmmakers can produce an experience of spectatorship that is less dependent on narrative linearity and instead opens the possibility for manifold subjective experiences of space and time. These experiences manifest uniquely for each viewer, dependent on where they choose to look and when; thus, it is evident that the spatial and temporal dimensions of these experiences will be different to conventional cinema.

This reconfiguration of experience has inevitable consequences for the ethical possibilities of virtual reality. This facility to situate a viewer within a constructed three-dimensional world, as in the case of "room-scale" productions that allow the viewer to move freely through space, or within the spatio-temporal matrix of a previously recorded moment, such is the case with 360-degree video, introduces new dimensions of spectatorship. This is especially evident when comparing how documentary operates in virtual reality in comparison to traditional non-virtual reality documentary. Virtual reality documentaries may use all the tools of conventional documentary, such as interviews, historical footage, and re-enactments, yet they also create a facility for the viewer to be situated inside a particular space-time configuration; in the case of 360-degree video, one that has previously been recorded, but one that nonetheless indexically corresponds to the space-time inhabited by the recording camera. This leads the viewer to a form of subjective witnessing that differs from the kind of witnessing produced either by rewatching historical footage or by first-hand accounts. Documentary theorist Bill Nichols, for example, argues that the choices

of camera placement and editing necessarily results in the framing of reality, and therefore the historical record (Representing 78-79). While this mediation still comes into play in virtual reality, it is to some degree ameliorated. This article seeks to contrast the ethical dimensions of virtual reality with traditional documentary cinema and explore how the altered dynamics of the viewer's spatial and temporal interface with the image contributes to this construction of a new ethical experience.

The problem of the "empathy machine"

The production of an ethical engagement is at the foundation of the work of contemporary virtual reality filmmakers such as Wallworth, Chris Milk, Gabo Arora, Nonny De La Peña, and Felix & Paul, who each have recognised that the aesthetic capacities of virtual reality allow for a new relation between viewer and film. Many of these filmmakers see the dynamics of the viewer's emotional engagement as concomitant with the heightened corporeal interface with the image; as Milk says, referring to the "window" of traditional cinema and television, "I don't want you in the window, I want you through the window, I want you on the other side, in the world, inhabiting the world". However, this consideration of the ethical capacities of virtual reality by creators is relatively recent, and much of the early history of the form has, in the words of Erkki Huhtamo "concentrated on exploring the expressive potential of the medium, instead of using it for ideologically charged critical purposes" (471-472). This "demo-aesthetic," as he calls it, is often the default state for a fledgling artistic domain, given that many of its practitioners are still learning the boundaries of its "expressive potential."

The recent move towards utilising the "expressive potential" of the medium as a means of exploring ethical questions has seen many theorists examining virtual reality's attempt to legitimate itself as an "empathy machine." This term was popularised by Milk's 2015 TED Talk, in which he discussed developing virtual reality works in collaboration with the United Nations with the explicit purpose of producing stories that could facilitate greater human connection and perhaps bridge the subjective divide between humans. One example of these kind of projects is the short film *Clouds Over Sidra* (2017), which places the viewer in the Za'atari refugee camp in Jordan to attempt to help them understand the subjective experience of a refugee child.

Sam Gregory highlights the potential for virtual reality experiences like *Clouds Over Sidra* to act as a type of "poverty tourism" and argues that filmmakers like Milk are confusing immersion with empathy (cited in Bello *Of Virtual Reality and Vérité*). Furthermore, the implications of the "empathy machine" concept have also been critiqued by media theorists such as Janet H. Murray and Grant Bollmer. Murray contends that empathy emerges not from the technology of the headset itself but from "well-chosen and highly specific stories, insightful interpretation, and strong compositional skills within a mature medium of communication," and argues that early virtual reality is far from a "mature medium." Bollmer, however, questions the entire notion of an empathy machine by claiming that empathy itself is a problematic concept to use for political or ethical purposes. He contends that technologies that are designed to foster empathy, like virtual reality, "*presume* to acknowledge the experience of

another, but inherently cannot" (64; original emphasis). What occurs instead, he argues, is that the user "hastily *absorbs* the other's experience into their own experience." In this model, empathy is better understood as an "aesthetic and empirical directive about sensation and knowledge" as opposed to a "psychological or ethical construct" (64; original emphasis). In place of empathy, Bollmer posits the alternative conception of "radical compassion" as a more valid means of examining the capacities of virtual reality, where the "sensation and direct experiential knowledge" produced by the experience is necessarily "bracketed" from its ethical and political implications (65).

The possibility of transcending our own body and inhabiting another, and therefore understanding another's experience, has been an enduring promise of virtual reality (Bolter and Grusin 22-23). The idea of subjective witnessing described above may seem to lead toward this promise, however, like Bollmer, I find it far too simplistic to propose that because virtual reality can place the viewer in the virtual position of another, they will somehow comprehend their existence, their past and their experience. Rather than positing virtual reality as an "empathy machine," it is perhaps more valuable to reframe virtual reality's capacity for transformation and affectivity as an outcome of an intensified ethical engagement.

Collisions and the "charge of the real"

Lynette Wallworth's *Collisions* provides an ideal location to explore these concepts. *Collisions* tells the story of Martu man, Nyarri Nyarri Morgan. Walking an Aboriginal trade route through Maralinga, South Australia in the 1950s, Morgan witnessed firsthand the devastating effects of an atomic detonation test. Nici Cumpston and Una Rey observe the urgency to archive these stories, given there are so few living witnesses who can offer these types of accounts, and *Collisions* does this powerfully through Morgan's retelling (66). The integration of this story with the aesthetic capacities of cinematic virtual reality is key to its compelling affect. The film takes the viewer to Martu country in the present day, and, while Morgan retells his story, then places the viewer as a virtual witness to the atomic bomb blast. In doing so, the film implicitly stages a consideration of the manifold ethical questions that emerge from what is arguably modernity's most heinous invention; among them, an examination of the legacy of the physical, environmental and spiritual damage done by the nuclear testing, and a consideration of the contemporary issues around mining and indigenous land rights.

In *Cinematic Ethics: Exploring Ethical Experience through Film*, Sinnerbrink proposes that cinema has often been a location for where cultures "find imaginative narrative ways to address, reflect upon, question, and explore some of the most important moral-ethical and cultural-political issues of our times" (16). Importantly, however, this concept of cinematic ethics is not constrained to how films thematise moral or ethical questions through the narrative content alone. Sinnerbrink is expansive in his conception of how traditional cinema can provoke or engage spectators to engage in diverse forms of ethical experience. This diversity emerges not only through "an intellectual or abstract reflection on moral problems or ethical dilemmas but [...] through a situated, emotionally engaged, aesthetically receptive response to

images that work on us in a multimodal manner, engaging our senses, emotions, and powers of reasoning" (20).

Sinnerbrink posits that there have traditionally been three interrelated aspects of cinema as a medium of ethical experience: firstly, that it can depict ethical content or experience through narrative, in the form of morally or ethically charged situations that the protagonists must negotiate; secondly, through the reflexive presentation of ethical experience in the filmmaking process itself, both from the perspectives of filmmaker and spectator; and thirdly, the ethics of cinema in terms of its broader cultural, social and ideological concerns. To these he adds a fourth: the relation between ethics and "the aesthetic dimensions of cinema" (17). Here he draws our attention to the way the aesthetic form can intensify our experience and focus our attention in a way that more fully expresses the complexity of that which is being considered.

In this understanding, aesthetics and ethics are intimately and expressively related; ethical experience is not constrained to an intellectual consideration of moral or ethical dilemmas but extends out to how the images affect the viewer in a multimodal sense: cognitively, but also emotionally, corporeally, and sensorially. The corporeal and sensorial aspects of this consideration are crucial. In her book *Carnal Thoughts* (2004), Vivian Sobchack argues for a dynamic understanding of a bodily engagement with images that is not entirely predicated on semantic content. She contends that the way in which fictional film content intersects with documentary may arouse a "documentary consciousness" in the viewer, which she defines as "a particular mode of embodied and ethical spectatorship that informs and transforms the space of the irreal into the space of the real" (261). While Sobchack is referring specifically to the use of actual documentary footage within a fictional diegesis here, the notion I wish to draw on is what she calls "the charge of the real" (284): the way our consciousness of an image as fictional moves to documentary consciousness, which is then infused with "an ethical charge" (284). Sobchack points out that our engagement with cinematic representations is "more labile and dynamic" than that which formal or generic conventions would seek to preclude: for example, the disparate elements of fiction and documentary, when integrated in a single film, can be experienced by the viewer in a manner that vacillates between the different types of consciousness each generates (268).

This conception provides a productive way to examine the fictionalised re-enactment of Morgan's encounter with the nuclear fall-out cloud in *Collisions*, which manifested for him as the spirit of his Gods; he says, in translated voice over, in the moments after the viewer witnesses the detonation in the desert, "I thought I saw the spirit of my Gods, rising to speak with me." In *Collisions*, a clearly anthropomorphic shape rises out of the ensuing mushroom cloud, including two shafts of light that may represent a set of eyes looking down at the viewer. In this segment the film shifts from the vérité documentary form to a subjective construction of Nyarri's recollections, yet it is freighted with an intensity that belies its status as a computer-generated construction. Imbued with our knowledge of the catastrophic environmental and health consequences that arise from this testing, there is a form of affective surplus that infuses the image, despite its irreal nature. This is an example of Sobchack's "charge of the real," occurring as the sudden

(or, in some cases, subtle) experience of the emergence of our extracinematic and extratextual knowledge of the world, permeated with an ethical charge, in the space where previously we may have been engaged through a fictional consciousness that is arguably more resistant to this thought.

This documentary consciousness certainly applies to non-virtual reality cinema, but what the virtual reality experience intensifies is the palpable aspect of the appearance of the God-like shape in the sky. In conventional documentary, this re-enactment may be read by the viewer as metaphor: the God-like form in the cloud as a representation of Morgan's experience of the spirit, despite the literalness with which he is describing it. In virtual reality, this literal quality manifests through our experience of witnessing the event in much the same way that Morgan did.

Aspects of presence in virtual reality

Conventional cinema traditionally aims to make transparent the cinematic apparatus so that the viewer becomes imbricated with the sound and image. In virtual reality this effacement of the cinematic apparatus is, in a sense, replaced by the notion of "presence" described earlier: the partial reality of that which is being perceived by the spectator. Virtual reality deemphasises the mediating role of certain aesthetic techniques that make clear that the viewer is experiencing a film: the traditional use of montage, camera angle and focal length, and sound, for example. Instead, it produces for the spectator a time and space which they can inhabit with relative perceptual freedom.

Kent Bye builds on this notion of presence by delineating it into four aspects: active presence, embodied presence, emotional presence, and mental/social presence. He labels this breakdown of the qualitative aspects of experience the "elemental theory of presence" (Bye). Bye contends that different modes of virtual reality constrain or amplify these various aspects of presence, however they are all active in experience. Active presence refers to the agency of the viewer, and the capacities for interactivity and exploration. Embodied presence refers to the sensory-perception of virtual reality and the different mode of embodied cognition it promotes. Emotional presence describes how virtual reality utilises story, character, music and rhythm, among other aspects, to facilitate greater emotional connection. Finally, mental/social presence covers virtual reality's communicative quality, its use as a space for social interactions, and its facility for mental abstractions.

While each of these aspects contributes to the more unified dimension of presence, it is important to not draw a simplistic equivalence between presence and the construction of empathy; like those who question the notion of an "empathy machine" above, I am sceptical that empathy emerges from presence alone. However, Bye's presences may provide a means to understand how virtual reality can provoke an intensified ethical engagement. In *Collisions,* for example, embodied and active presence come to the fore in ways that transcend conventional documentary. Not only does the narrative perform a meditative and compassionate reflection on the devastating clash of indigenous culture and modern technology, but the film also uses the medium of virtual reality in a

way that reflects upon the responsibilities between documentary filmmaker and subject. Wallworth has expressed in interviews that she sees this technology as extending the immersive properties of cinema, and that this immersion is intimately tied to how Morgan, and the Martu, tell their stories. As Wallworth told *Mashable* in 2016, the Martu:

> *care most about giving people a sense of what it feels like to be in their country. There is no better way to have that sensation than with virtual reality. You don't just land there, you are travelled there. We follow the kind of protocols of meeting that apply to me when I visit, so you are given context and understanding about why you are there. (Mandybur)*

What this metaphorical transportation of the viewer allows for is an expression of twin desires by Wallworth: that she can tell the story as the Martu would, and that she can place the viewer as a witness to the event in a way that carries with it "presence." This witnessing is, for Wallworth, a way of overcoming the possibility of spectatorial detachment that she sees as more present in other forms. In her words, *Collisions* makes the viewer stand where Morgan stood and see what he saw: "it makes you present" and therefore "it makes it personal" (Mandybur).

Kit MacFarlane contends that the film establishes what he describes as "the sense of an outsider's gaze" (he notes that the narration stresses that the bomb test was "the day our world collided with [Morgan's]") that leads the viewer "into a sense of a different space, and with it, the possibility of another outlook" (80), which would cohere with the kind of experience Wallworth seeks to build.

A fold in time and space

Nichols, in a consideration of the recreation of prior events in conventional documentary cinema, contends that re-enactments "effect a fold in time. [They] vivify the sense of the lived experience, the vécu of others. They take past time and make it present. They take present time and fold it over what has already come to pass." In addition, they also make "what it feels like" to occupy a situation or perform an action "visible and more vivid" (*Documentary* 88). This contention is arguably even more relevant to the re-enactment in virtual reality, such as that of the atomic blast in *Collisions*, which enables the viewer to more literally occupy a situation.

Nichols has also written extensively on the ethical space in documentary film, asking questions of the filmmaker's relation to the historical world. He coins the term "axiographics" as a way of describing "the implantation of values in the configuration of space, in the constitution of a gaze, and in the relation of observer to observed" (*Representing* 77-78). The axiographics of *Collisions*, its ethical drive, plays out in the Wallworth's use of virtual reality's capacities in relation to these three elements. *Collisions* attempts to open the viewer's eyes to the contradictory drives behind two worldviews: on one side, the short-term thinking of the proponents of nuclear testing, and by extension, the short-term thinking of the modern economic imperatives driving the mining industry; on the other side, the notion of indigenous stewardship of land, of

multi-generational understandings of the environment, of how the connection between the Martu people and their country goes beyond considerations of its utility. Wallworth calls this a story "about the unintended consequences of technology" in alignment with the "extreme cultural interruption that occurred to Nyarri" (Taylor). She balances these two perspectives through collaboratively sharing the resources and capacities of this type of filmmaking, by allowing Morgan and the Martu to be the co-authors of this story and to share in their voices how knowledge is passed down in indigenous society. By placing these different worldviews in dialogue, Wallworth demonstrates that the negative consequences of technology are not limited to the material or economic: they can tear at the very heart of a culture.

Conclusion

The 360-degree camera, and the freedom of gaze that it provides, deliberately draws the viewer into sharing an ecological perspective of the relationship between country and people: where a 360-degree pan of the range may have supplied us with the same content visually, the presence of negotiating this space through our own perceptual choices acts to tie us more fully to this space, in a way that may reflect the Martu's philosophy of place. In her study of the Martu people's use and knowledge of their country, research scientist Fiona J. Walsh uses the triadic conjunction of "Country-People-Dreaming" to describe the interconnectedness of these aspects of the Martu culture (17). However, she also acknowledges that this triad underestimates the depth and complexity of the connectivity between these aspects and others: for the Martu, elements such as "plants/animals," "spirit," "children," "country," and Jukurrpa "travel routes" are inextricably linked together (357). Walsh contends that to describe the complexity of the connectivity, "the biological concept of symbiosis seems analogous. These inter-relations were necessary for the functioning of the whole system" (383).

Virtual reality becomes an effective vehicle for expressing this worldview: through presence, the viewer come to more fully understand the interconnectedness of the Martu people and their land through a mutual, albeit temporary, inhabitation. This is not land as property for ownership, but land as that which sustains its people. In *Collisions*, the Martu people's stewardship of the land, through fire management, is placed in stark counterpoint to the exploitation of the land through both nuclear testing and encroaching mining projects. This fire management is a technology also, one that the uninitiated viewer may not fully understand but will nonetheless grasp as vital to the Martu people's ecological philosophy.

The viewer's ethical relationship with a film may not be entirely dependent on their contemplation of the ethical content of the narrative, but also in how the film is productive of a capacity to think new meanings. Sinnerbrink describes how traditional cinema "enables an experientially 'thick' exploration of subjectivity, memory and historical experience" which contributes to the "ethical responsiveness and philosophical reflection" of the viewer (17). Virtual reality achieves this in a different manner to conventional cinema because of the altered dynamics of the viewer's spatial and temporal relationship to the image, where the experiential "thickness" Sinnerbrink refers to comes to include a different form of embodied relationship to the image. The

unique corporeality and sensorial dimensions of virtual reality combine with a cognitive and emotionally charged consideration of the image to evoke an encounter that can challenge, provoke, and inspire reflection from the spectator. *Collisions* unites perceptual, affective and cognitive engagement with experiential immersion, which not only enables the audience to witness a recreation of the atomic bomb test, but to more fully grasp the cultural trauma it enacted for Morgan and others. Through the presence it brings to the fore, and the skilful use of virtual reality cinema's spatial and temporal dimensions, the viewer may be drawn into an ethical inhabitation of the image, which can transform their understandings of others, of the world, and of themselves.

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