*Article*

# Blindness, Blinking and Boredom: Seeing and Being in Buddhism and Film

**Lina Verchery**

Committee on the Study of Religion, Harvard University, Cambridge, MA 02138, USA;
linaverchery@fas.harvard.edu

check for updates

**Abstract:** This essay takes up a paradoxical problem articulated by Buddhist philosopher, Nishitani Keiji: the eye does not see the eye itself. It argues that film has a therapeutic function by virtue of its ability to draw our attention to this precise aspect of our existential situation; namely, that we alternate between being *in* our experience and *perceiving* ourselves in our experience. Or, to borrow Nishitani's terms, we alternate between the act of seeing and the quest to see the eye itself. The essay explores this theme with reference to specific elements of formal cinematic language. Rather than focus on a particular film or set of films for analysis, we focus instead on how the grammar of cinematic language draws our attention to aspects of our existential situation that ordinarily escape our awareness. Insofar as this may also be a goal of Buddhist practice—that is, to expand one's ability to perceive reality for what it is, beginning with one's own experience of it—this essay highlights a few of the salient ways that perennial aspects of the human condition have been articulated through the languages of both Buddhism and film.

**Keywords:** Buddhism; film; aesthetics; Embodiment; cinematic realism; the uncanny valley; emergence; film editing; high frame rate cinema

## 1. Introduction

We are blind to many of the most powerful forces governing our lives. We are usually unaware of the air we breathe, the division and multiplication of our cells, our repressed fears and anxieties, what our face looks like to other people. Each of these mundane facts could not be more intimate, more inextricably threaded through the fiber of our everyday being, and yet they generally escape our perception. Some say this paradoxical blindness is a fundamental condition of our existence. As the Japanese Buddhist philosopher Nishitani Keiji (1900–1990) expressed it, "the eye does not see the eye itself" (Nishitani 1982, p. 152). To phrase this in standard Buddhist terms, there is a discrepancy between what we perceive of reality and the broader scope of reality itself; our very perceptions, because they are ordinarily characterized by ignorance, occlude aspects of reality from our view. The shock of Siddhārtha Gautama's first foray beyond the palace walls, we might say, was the sudden realization of this discrepancy: aging, sickness, and death—of which, up to that point in his life, he had been unaware—erupted into his world. He suddenly saw aspects of reality to which he had previously been blind.

This essay takes up the problem of this paradoxical blindness—that is, the discrepancy between our ordinary perceptions of reality and the broader purview of reality itself—and explores how film might coach us to approach the latter by expanding the former. Taking Nishitani's statement as my point of departure, I suggest that film has a therapeutic function by virtue of its ability to draw our attention to this precise aspect of our existential situation: namely, that we continually alternate between being *in* our experience and *perceiving* ourselves in our experience. Stated differently, we alternate between the first-order process of simply perceiving and the second-order process of

reflexively perceiving our perception. To borrow Nishitani's terms, we alternate between the act of seeing and the quest to see the eye itself.

What follows is an experimental engagement with these issues that draws on a range of interdisciplinary sources and adopts a variety of discursive modes[1]. I argue that attention to specific features of formal cinematic language—elements like frame rate, sound design, edit, and shot duration—can illuminate the aforementioned philosophical questions in salient ways. In contrast to scholarship that identifies Buddhist elements in the content of specific films[2], my interest here is to explore how the technical features of the cinematic form themselves create a mode of aesthetic discourse that resonates with Buddhist philosophical and existential issues. Thus, rather than focus on a particular film or set of films for analysis, we focus instead on how the grammar of cinematic language, so to speak, draws our attention to aspects of our existential situation that ordinarily escape our awareness. Insofar as this may also be a goal of Buddhist practice—namely, to expand one's ability to perceive reality for what it is, beginning with one's own experience of it—this essay attempts to highlight a few of the salient ways that perennial aspects of the human condition have been articulated through the languages of both Buddhism and film[3].

Specifically, I shall draw quite liberally from Buddhist resources and ideas, ranging from standard doctrinal teachings—like emptiness (*śūnyatā*, Ch. *kong* 空), no-self (*anātman*, Ch. *wuwo* 我), impermanence (*anicca*, Ch. *buchang* 不常), nonduality (*advaita*, Ch. *buer* 不二), and suchness (*tathātā*, Ch. *zhenru* 真如)—to various ways that creative thinkers have deployed such ideas in their work (as in the poetry of Matsuo Bashō or the writings of Nishida Kitarō and Nishitani Keiji, two of the central members of the Kyoto School of Buddhist philosophy). Throughout, I bring these Buddhist ideas into dialogue with technical aspects of film production, as well as with insights from a range of theorists commenting on art, film, perception, and semiotics. After an introductory section that lays out the basic *problematique*, we consider a number of filmic case studies: a phenomenology of boredom, intermittence and the illusion of continuity, empathy and the uncanny valley, emergence and the power of appearances, and the nonessential nature of "meaning". In their own ways, each case highlights a particular approach to the Buddha's teaching of the middle way, one that strongly contests the idea of the "middle" as an in-between place, a transcendent synthesis that emerges from the resolution of opposites. Instead, we shall see throughout this essay that, like breathing—in which one cannot simply hold a "middle breath" but must *alternate* between inhaling and exhaling—what is essential about the middle is its movement, the constant *alternation* between one pole and the other. This, I will suggest, is deeply tied to film's therapeutic function.

## 2. Total Cinema, Realism, and Hyperreality

Like many periods of watershed technological innovation, the digital revolution in cinema over the last few decades has been characterized by an almost utopian sense of optimism. Remarkable advances in computer-generated imagery (CGI), the use of high frame rates (HFR), 3D animation, and high-resolution projection have been lauded as major leaps toward creating a hyperrealist cinematic aesthetic. In fact, some believe these innovations, embraced by major studio pictures and art-house *auteurs* alike[4], will make cinema so lifelike that we will finally achieve the Bazinian dream of "total

---

[1]  Specifically, the essay is at times technical, philosophical, or phenomenological in tone, and at other times closer to a manifesto that draws on personal experience and affective, material, and embodied approaches.

[2]  I have argued this approach is methodologically problematic, see (Verchery (2014)) "Ethics of Inscrutability: Ontologies of Emptiness in Buddhist Film".

[3]  As we shall see below, I draw inspiration from the work of Francisca Cho, who critiques the "literary approach" to film analysis that treats films like texts to be read. Instead, Cho advocates for non-textual modes of aesthetic, embodied, and sensory filmic engagement. In light of this, I use linguistic metaphors here only heuristically—when speaking, for instance, of the "grammar" of cinematic "language"—not to suggest that films should be read like texts, but to highlight the particular aesthetic and semiotic networks at work in cinema, such that we can, in my opinion, speak of film as a form of non-textual language.

[4]  Such technologies have been put to use not only in major commercial films like James Cameron's 2009 film, *Avatar* (Cameron et al. 2010), Peter Jackson's 2012 film, *The Hobbit: An Unexpected Journey* (Jackson et al. 2013), Ang Lee's 2016 film, *Billy Lynn's Long Halftime Walk* (Lee et al. 2017) and rumored for Lee's forthcoming *Gemini Man* (Lee et al. 2019), but also in

cinema": that is, film as a "total and complete representation of reality" ([Bazin 2005](), p. 20). This dream is to create a cinematic experience that feels "unmediated" and "hyperreal" ([Turnock 2013](), p. 38), an effect sometimes called "liquid realism," to borrow a phrase from one of the movement's greatest visionaries, visual effects artist, Douglas Trumbull[5]. Discussing the effect of these new cinematic technologies, Trumbull describes cinema images that "flow naturalistically into the next, creating a visceral effect of motion, allowing the viewer to feel more mentally involved and physically immersed in the action" ([Turnock 2013](), p. 39). Indeed, in focus groups testing the combination of 3D and high frame rate imagery, audience members report feeling that they are no longer merely watching a film, but that they are *in* the film. As one viewer put it, "I felt like I was in the action, not looking at a screen" ([Michelle et al. 2017](), p. 9).

By way of illustration, let us consider some of the most groundbreaking recent work in the use of high frame rate imagery (HFR). Peter Jackson's 2012 *The Hobbit: An Unexpected Journey* ([Jackson et al. 2013]()) was shot and projected at 48 frames per second (fps), twice the standard rate of 24 fps. Ang Lee's 2016 *Billy Lynn's Long Halftime Walk* ([Lee et al. 2017]()) then took a huge leap forward, shooting and projecting at an unprecedented 120 fps. Understanding the mechanics of frame rates is simple[6]. In traditional celluloid shooting, a filmstrip travels in front of the camera gate 24 times per second, resulting in 24 photographic exposures per second. When projected back at the same speed, this produces the fluidity of motion and familiar 24 fps "cinematic look" to which most audiences are accustomed[7]. To increase the frame rate, a photographic exposure or digital image is recorded more times per second: 30, 48, 60, or even 120 frames per second. When played back at the same speed, the resulting effect is quite remarkable: the reduction of motion blur, smoother movement, and a sharper, more lifelike image. In fact, many flat-screen home televisions now have a special "motion smoothing" setting that gives ordinary 24 fps or 30 fps programs the look of 60 fps, noticeable especially in the smoothness of motion[8].

Proponents of HFR—like Trumbull, who calls it "3D without the glasses" ([Turnock 2015](), p. 254)—have argued that these technological innovations result in more intense and immersive experiences for the audience.

> There's a tremendously changed response. People unanimously reported not only greatly increased physiological response to the film, but better color, better sharpness, a sense of three-dimensionally, a sense of participation and an illusion of reality. (Trumbull, quoted in [Studlar 1983](), p. 1)

---

independent films like Werner Herzog's 2010 *Cave of Forgotten Dreams* ([Herzog et al. 2011]()) and Wim Wender's 2011 *Pina* ([Wenders et al. 2013]()).

5    Douglas Trumbull rose to prominence in the 1970s with his groundbreaking visual effects work on Stanley Kubrick's 1968 film, *2001: A Space Odyssey* ([Kubrick et al. 2007]()), as well as Steven Spielberg's 1977 film, *Close Encounters of the Third Kind* ([Spielberg et al. 2002]()), and Ridley Scott's 1982 film, *Blade Runner* ([Scott et al. 1999]()). In the 1980s, Trumbull developed "Showscan," a high frame rate capture and projection system combining HFR projection with large format film, like 70 mm and IMAX ([Turnock 2013]()). Currently, Trumbull continues his experimentation and invention at his home studio in the Berkshire hills of western Massachusetts.

6    Even without realizing it, many of us are already familiar with the "look" of different frame rates from watching television. The news, for instance, is typically shown at 30 fps (technically 29.97), resulting in a smoother, more realistic image than most television dramas, which are usually exhibited at 24 fps (broadcast at 23.98). Soap operas are a notable exception, being generally exhibited at 30 fps, like the news, or 60 fps (59.94), which to some results in their "cheap" aesthetic when compared to the more "cinematic look" of 24 fps. To reduce motion blur and achieve maximum crispness, many video games use 60 fps.

7    Although audiences today are used to the look of 24 fps, this frame rate was not standardized until the introduction of sound in the late 1920s. Prior to that time, frame rates varied widely—anywhere between 16 fps and 22 fps—and were often deliberately manipulated for effect (as in the technique of "undercranking," which involves purposely shooting fewer images per second such that, when replayed at full speed, subjects appear to be moving more quickly, a technique used to great effect, for example, in F. W. Murnau's 1922 classic, *Nosferatu: A Symphony of Horror* ([Murnau et al. 2013]()), or in any number of Buster Keaton's comedic action sequences).

8    This process, also known as "motion interpolation," is called "Auto Motion Plus" in Samsung televisions, "MotionFlow" in Sony televisions, and "TruMotion" in LG televisions.

In the same vein, the late film critic, Roger Ebert, described HFR as "incomparably more realistic than anything I had ever seen before on a movie screen" (Turnock 2013, p. 39)[9]. For Trumbull, this confirms that HFR and other cutting-edge cinematic technologies are creating cinematic experiences that are more intense, more immersive, and "more 'true to life'" (Turnock 2013, p. 45) than ever before.

Others contend, however, that this quest for cinematic realism will never bring cinema closer to reality because what we call "realism" is merely a set of constructed aesthetic codes and conventions. Julia Turnock gives voice to this perspective, highlighting the "historical contingency of what we accept as 'realistic'" in different epochs (Turnock 2013, p. 44). Turnock cites several films, for example, that were celebrated for their realism at the time of their release, but which no longer feel realistic to audiences today, who can now "see through" their techniques and tricks[10]. This is not, she adds, "as many assume, because our technology has gotten 'better', but because the codes and conventions of realism have changed" (Turnock 2013, p. 45). Likewise, aesthetic conventions that feel realistic in cinema today may not seem so in even just a few years (Turnock 2013, p. 44). Our aesthetic definitions of "reality" are like a raft that drifts further away from us the closer we come to approaching it.

To illustrate Turnock's point, we might return to the example of HFR, where it is argued that the unprecedented clarity of "liquid realism" does not actually result in a more immersive viewing experience. Ironically, there is evidence that it actually has the opposite effect: the more hyperreal the image, the less believable audiences find it to be. *The Hobbit*, for example, was met with vitriolic responses from critics and audiences alike, with *Village Voice* film critic Bilge Ebiri describing HFR as a "crime against cinema," and audiences complaining it makes films look "*too* real," "uncinematic," or "like a TV soap opera" (Turnock 2013, p. 31).[11] In his review, *New York Times* film critic A. O. Scott bemoaned how the "almost hallucinatory level of clarity" created by the use of HFR in *The Hobbit* "robs Middle-earth of some of its misty, archaic atmosphere, turning it into a gaudy high-definition tourist attraction" (Scott 2012)[12]. The problem with HFR, in other words, is that it looks *so real* that it leaves nothing to the imagination: sets, costumes, makeup, and even actors' performances are rendered with unforgiving accuracy.[13] This unrelenting visual fidelity ends up "undermining the suspension of disbelief," as Carolyn Michelle and others have concluded (Michelle et al. 2017, p. 1)[14]. This suggests a surprising and salient fact about our aesthetic approach to "reality": for a cinematic image to feel realistic it is vital that it not reveal *too much*. Michelle and her co-authors call this principle the "hyperreality paradox" (Michelle et al. 2017, p. 4): namely, the more hyperrealistic an image,

---

[9]　Laboratory experiments have attempted to empirically confirm these qualitative reactions by measuring audiences' physiological response to HFR with electrocardiograms, cephalograms, and galvanic skin response and muscle tension sensors. According to Trumbull, these "physiological tests showed that brainwaves, pulse and skin responses rose as the frame rate rose" (Turnock 2015, p. 254).

[10]　For example, Turnock cites Vittorio De Sica's 1949 film, *The Bicycles Thieves* (De Sica et al. 2007), and Robert Altman's 1975 film, *Nashville* (Altman et al. 2016), both lauded at the time for their "realism"—with De Sica still credited as the progenitor of Italian neorealist cinema and Altman celebrated for the naturalistic and improvisational character of his films—though audiences today are liable to find the realism of these films extremely dated. See (Turnock 2013, pp. 44–45).

[11]　The critical response to *The Hobbit*, Turnock notes, also reveals the implicit economic hierarchy of value that shapes audience perceptions of certain forms of media. In this case, the look of higher frame rates (which audiences recognize from low-budget television soap operas) is associated with cheapness, whereas the "cinematic" look of 24 fps familiar from film is perceived as more sophisticated and artistic. As Turnock explains, reception of *The Hobbit* was "mixed at best, if not hostile. The most common negative judgment is what is variously called 'the soap opera effect' or 'the Sports on TV' effect, meaning the footage unfavorably resembles these other (less prestigious) media forms . . . HFR filmmaking not only reveals the extent to which we are conditioned to accept cinematographic styles and traditions, both realistic and fantastic, as natural, but also hold them to a different and, for some, higher aesthetic standard than other forms of moving images" (Turnock 2013, p. 44).

[12]　Ang Lee's use of HFR in *Billy Lynn* incited similar reactions, with one reviewer describing the look of the opening shot as "a 3-D printout of a human being . . . The scene looked queer, uncinematic, like a theater sketch acted out in virtual reality" (Engber 2016).

[13]　As Daniel Engber remarked, in *The Hobbit*, "Gandalf's staff and Thorin's axe looked too fake, like low-end gear for LARPing (Live Action Role Playing) . . . . The actors, too, are more exposed in HFR. Just as high-definition cameras revealed the use of heavy powder and foundation, so do higher frame rates spotlight an actor's put-on smile. I couldn't tell if the performances in *Billy Lynn* were wooden, or if they'd been made to look that way when viewed at finer grain" (Engber 2016).

[14]　See also controlled experiments cited by (Quesnel et al. (2013)), where viewers reported the "footage was so hyperrealistic that it disrupted narrative engagement".

ironically, the less "real" it feels to viewers. Thus, the total disclosure made possible by hyperrealistic imagery is not only aesthetically uncomfortable, it is also *unrealistic*. Because it leaves no room for ambiguity, it is fundamentally *unlike life*. As technological innovations in digital cinema bring us ever closer to the dream of unmediated hyperrealism, it becomes increasingly apparent to audiences that mediation is, in fact, an essential part of how we experience the "real"[15].

Thus, philosophically, the debate surrounding cinematic realism begs the fundamental question of what we think *reality is*—less in an ontological or metaphysical sense than in the sense of identifying the assumptions that determine how we recognize and identify the "real". In *The Pervert's Guide to Cinema* (Žižek 2006), Slavoj Žižek points to this question in his commentary on the famous red pill/blue pill ultimatum[16] in the 1999 film, *The Matrix* (Wachowski et al. 2001), a film that is itself thoroughly imbued with Buddhist allusions:

> the choice between the blue and the red pill is not really a choice between illusion and reality . . . I want a third pill! . . . [A] pill that would enable me to perceive not the reality behind the illusion, but the *reality in illusion itself*. (italics added, Žižek 2006)

In the spirit of this third way, I contend that both of the foregoing perspectives on cinematic realism—the progressivist optimism of Trumbull and the historical constructivism of Turnock—have something to teach us about our experience of reality. Indeed, as we shall see throughout this essay, like the false dichotomy between the red and blue pills, these two positions should not be read as an either/or choice. Rather, it is their very tension that creates film's capacity to tap into a basic truth of our existential situation: whereas some audiences feel swept-away by the new HFR cinematic aesthetic, others find it fake and alienating. I argue it is precisely this oscillation between absorption and disbelief that is fundamental to cinema's therapeutic function.

## 3. Life, Lifeness, and the Emptiness of Emptiness

Debates about aesthetic realism are not, of course, unique to the cinema; they have analogs in many other spheres, notably that of modern literary theory. James Wood's *How Fiction Works* (Wood 2008) is a case in point. Turnock is for us what Roland Barthes is for Wood: a spokesperson for the constructivist position. Paraphrasing Barthes, Wood discusses the use of narrative detail in the modern novel—a technique popularized and best exemplified by Gustave Flaubert (1821–1880)—in order to create the *feeling* of realism. Channeling the constructivist perspective, Wood explains,

> The selection of detail is merely the quorum necessary to convince the reader that this is 'real,' that it 'really happened.' It may be 'real' but it is not *real*, because none of the details is very alive. The narrative, the grammar of the realism exists in order to announce to us: 'This is what reality *in a novel like this* looks like'. (Wood 2008, p. 83)

In other words, this use of narrative detail does not make a novel any more *real*, it merely conforms to a stylistic convention we recognize as "realism". By way of analogy, Wood cites Barthes' humorous example of how the laurel-leaf headbands worn in 1950s–60s Hollywood epics denote "Romanness". The cheesy hairpieces, Wood explains, signify "Romanness" in the same way Flaubert's use of detail signifies "realness". In both cases, nothing "actually *real* [is] being denoted" (ibid.); these are merely agreed-upon conventions within an arbitrary style known as "realism".

---

[15] Turnock notes that these recent technological innovations in digital cinema have actually trained viewers to become savvier, making even non-experts hyperaware of the effects and value of cinematic mediation. "Viewers are no longer fooled by claims of transparency, immersion, and immediacy . . . . Instead, [they] are beginning to recognize and embrace the layered artifice that moving image technologies have long striven to erase" (Turnock 2013, p. 48).

[16] This is the scene in *The Matrix* when Morpheus presents the main character, Neo, with a choice between two pills: the blue pill, which will erase his memory and return him to the virtual reality in which he had been previously living, or the red pill, which will awaken him to the truth by revealing the behind-the-scenes workings of the matrix.

And yet, like Žižek, Wood gives us a "third pill," as it were, insisting that convention and reality need not be either/or. Realism in the modern novel may be conventional, he explains, but that does not preclude its ability to communicate something real[17]. Far from mutually exclusive, convention and reality are in a dynamic relationship whereby one transforms into the other over time. What may have begun as the expression of a spontaneous, utterly original insight into life gradually becomes conventional as it is popularized. Convention, thus, is not

> untruthful *per se*, but it has a way of becoming, by repetition, steadily more and more conventional. Love becomes routine (and indeed Barthes once claimed that 'I love you' is the most clichéd thing anyone can say), but falling in love is not nullified by this fact. (Wood 2008, p. 236)

Thus, although innovation becomes convention over time, it does not follow that it has no connection to the real.

Wood's theory is salient for us because it foregrounds the structural dynamism through which "convention" and "innovation"—or, by analogy, "artifice" and "reality" or "mediation" and "immediacy"—can morph back and forth. It is the vitality of this morphing, I suggest, that makes the art of representation so exciting. Conventions and routines are necessary; they are the foundation for language, understanding, and order. And yet without the periodic injection of originality—a sudden break with convention that reveals a new perspective on the world—life would not be very alive. The art of representation is not about striving for complete originality and immediacy—nor is it, conversely, about blindly conforming to tradition, convention, and *les règles de l'art*—rather, its power lies precisely in the interplay of these two principles.

This brings us to a notion Wood calls *lifeness.* Rejecting the binary framework of life vs. artifice (and its structural analogs like innovation vs. convention, immediacy vs. mediation), lifeness acts as a third category—a proverbial "third pill"—that encompasses these dualisms within itself. Lifeness, Wood explains, is not merely *life* but, to borrow a Buddhist phrase, it is life in its full suchness: both ordinary and extraordinary, expected and unexpected, comprehensible and incomprehensible. Lifeness in literature, Wood explains, is more than mere verisimilitude. Rather, lifeness is life and art *together*; it is "life brought to different life by the highest artistry" (Wood 2008, p. 247). Readers familiar with Mahāyāna Buddhist philosophy may see a structural parallel here between lifeness and the notion of emptiness; not relative emptiness (*śūnyatā*), but true emptiness, often described as the *emptiness of emptiness* (*śūnyatāśūnyatā*). As richly theorized across Mahāyāna traditions, emptiness is not mere negation or nihilism. The latter follows from an incomplete understanding; a dualistic view that understands emptiness as merely the opposite of form. Since true liberation is the eradication of dualistic thinking, it follows that a dualistic understanding of emptiness—in terms of what it is *not*—is not true emptiness. Thus, we come to a second-order intervention that negates the negation: emptiness (*śūnyatā*) is itself empty (*śūnyatāśūnyatā*). The emptiness of emptiness, in other words, is the non-duality of emptiness and form. Since both form *and* emptiness are empty, there is no contradiction between them. Just as the interplay of emptiness and form is precisely *śūnyatāśūnyatā*, the interplay of reality and artifice is precisely *lifeness*. *Śūnyatāśūnyatā* allows for both negation and affirmation, just as lifeness allows for both mediation and immediacy. This not mere *realism,* but a kind of *pas de deux* between reality and artifice. This interplay is what enables art to engage real life, because real life, as we shall see presently, is so much more than simply *realistic*.

## 4. Seeing with Our Ears: The Unreality of Real Life

In ordinary conversation, we often refer to "real life" as though it were a self-evident category; a kind of shorthand for the empirical, material, sensible, factual, that which is "obviously" true. Often, it

---

[17] As Wood puts it, "just because artifice and convention are involved in a literary style does not mean that realism (or any other narrative style) is so artificial and conventional that it is incapable of referring to reality" (Wood 2008, p. 234).

is used to denounce its supposed opposites: fantasy, play, frivolity, imagination. Yet, upon reflection, "real life" is only *sometimes* "realistic" in this sense, and indeed often includes moments that feel utterly unreal. The shock of major life events—births, deaths, falling in love, accidents—are among the more dramatic examples of such moments, but in fact we needn't look further than everyday experience to find instances of this phenomenon: the uncanny face of an animal; meeting a celebrity; a coincidence; winning an unexpected prize; dreaming. Indeed, we might go so far as to say that the fact that life occasionally *feels unreal* is an intrinsic part of what *real life* is.

Conversely, more often than we like to admit, we perceive things as "real" when they are not. Even beyond the obvious examples—unrequited love, hallucinations, misremembering, false eyewitness accounts—such moments are so ubiquitous that we often fail to notice them. To cite an example from my own everyday experience, whenever I run the hairdryer, I think I hear my phone ring. Such auditory hallucinations, in which the ear "hears" a phantom overtone, are a well-known phenomenon. As Leonard Bernstein explained in his 1972–73 Harvard Norton Lectures (Bernstein 1992), every sound we hear is actually a combination of sounds (specifically, a fundamental and its overtones). When the fundamental note or one of its overtones is missing, the brain will frequently "fill in" the missing sounds. We *hear* them, but they are not there. Buddhist philosophical literature abounds with commentary on such phenomena, like the popular example in *Yogācāra* philosophy of a person with cataracts who sees a floating hair[18].

In other cases, the question is not whether or how an object of perception exists, but that we perceive it in such radically different ways. Many examples come to mind: color blindness, the pop-culture controversy over the color of "The Dress" on social media[19], or the worldwide Twitter debate over a sound that some heard as "yanny" and others heard as "laurel" depending on their perception of pitch[20]. As neuroscientist Beau Lotto notes, these perceptual discrepancies do not mean there is no empirical "real life" out there, but rather highlight how widely our interpretations of what is "real" can vary.

> When you say things like, *we don't see reality*, people think you're being a post-modern relativist. That's not the case. There is a physical world. It's just that we don't *see it*. Red doesn't exist, the note "C" doesn't exist. These are all things inside our heads that we project out into the world. (Lotto, quoted in Worrall 2017)

Film does not only reflect these variations in our perceptions of reality, but actively manipulates them, as in a memorable experience I had after a group film screening at the Flaherty Film Seminar.

We had just watched Lisandro Alonso's *Los Muertos* (Alonso et al. 2005), in which the main character is traveling alone through the jungles of Argentina. Hungry, he stops at the hollowed-out stump of a fallen tree in which a colony of bees have built a nest. As the bees swarm him, he casually reaches inside with his bare hands and unhurriedly grabs handful after handful of honeycomb which he proceeds to eat. During a group discussion after the film, one viewer marveled at the composure of the actor, who must have been stung numerous times during the filming of the scene (which consisted of a single uncut shot with no special effects). Another audience member in our group, who happened to be a sound recordist by profession, corrected her: "There were barely any bees in that shot". *Yet we had all seen them*! No, he contested, the sound design featured just enough droning of bees to suggest a swarm, even though there were only a few actual bees in the shot. As we reflected, none of us could remember whether we had really *seen* a swarm, or if we simply had the *impression* of having seen one. We heard the sound of buzzing, and that sound, combined with just a handful of real bees flying

---

[18]　As in the opening verse of Vasubandhu's *Viṃśatikāvijñaptimātratāsiddhi* (Silk and Vasubandhu 2016).

[19]　Though dismissed by some as a frivolous social media fad, neuroscientist Beau Lotto cites "The Dress" controversy as an example of how fundamental questions about cognition can trickle down from scientific circles into popular culture, specifically, he argues, because they tap into profound issues regarding perception and experience that have widespread resonance. See Lotto's book, *Deviate: The Science of Seeing Differently* (Lotto 2017).

[20]　See Josh Katz et al.'s series of articles on this for the *New York Times* (Katz et al. 2018).

around, was suggestive enough to have us all unconsciously "fill in" the image. We, the audience, were imaginatively *reaching into* the film[21].

The fact that film can trick our perception like this is more than just a clever ruse; it actually mirrors how we perceive everything around us. Humans are constantly leaping to interpretation, scanning for patterns, looking for meaning, filling-in the blanks. When watching films, moment-by-moment, we find ourselves alternately swept away or aware of the illusion. As such, films engage us in a process that is of a piece with how we experience the world: in life, we are continually contending with the question of what is real and unreal, even below the level of our conscious awareness. Consider the example of dreaming and waking up. When dreaming, we are engrossed. No matter how nonsensical the premise, it is accepted as real and true within the context of the dream. Upon waking, it is not uncommon to recall the dream and find it ridiculous, nonsensical, or even impossible to articulate using ordinary language and logic. At one moment, the dream felt utterly real. The next, it did not. Such experiences, albeit in less dramatic form, continue throughout the day: we think we hear our name called in a noisy room, but are mistaken; we think we see our friend from afar, but it is someone else; we think we see a rat in the dark, but it is just a funny rock. And yet, sometimes it *is* a rat, it *is* our friend, it *is* our name. The subjective experience borne of this constant alertness—the alternation between doubt and affirmation, between fiction and truth—is, I suggest, the mode in which we live our lives.

This brings us back to Nishitani's pithy observation that the eye does not see the eye itself. We might draw a structural analogy between the experience of *reaching into* a film—projecting the image of swarming bees being an extreme example—and the eye's act of outward seeing. In its simplest mode, the eye *sees* the world, just as the self *experiences* the world. It fully inhabits its subject position and looks outward, enters into things, is engrossed. When such moments occur during a film, we are immersed; we suspend disbelief. Like the eye that does not see itself, we *forget ourselves* and are swept away by the experience. But as self-aware and inquisitive beings, we cannot go long without reflexivity. The eye seeks to see itself, just as the self longs to know itself. As Sartre and others have argued (Sartre 1956, 1957), this requires that we shift from the position of subject to that of object. In such moments of self-reflection, we make ourselves into the objects of our own perception. In so doing, we shift from an outward-looking to a reflective gaze; we *remember ourselves*, relativize our position, and see ourselves as objects in the world alongside other things and beings like us.

To illustrate, let us again consider the example of sleeping and waking up. Sometimes, in the liminal microseconds after waking, there is a brief moment during which we haven't yet *remembered ourselves*. We don't yet recall our name, that it is Wednesday, or that our sheets are blue. This information, of course, comes rushing in mere instants later, and then we remember ourselves and our place in a network of embodied habits (*what's for breakfast*?), interpersonal relationships (*better not wake my spouse as I get up; I should walk the dog*), of social expectations (*I mustn't be late today*), of economic structures (*it's Saturday, I don't have to go to work*). Remembering ourselves involves a recognition of our place in a context that involves other selves like us. Though we remain inescapably the center of our own individual universe, we are reminded that we also exist as only one self in a sea of selves, each of whom is, like us, the center of their own world. Both of these perspectives on the self—self as subject and self as object—are equally true, but we generally do not hold both at the same time. In life, as in film, we alternately forget and remember ourselves. We *forget ourselves* as we become engrossed in our lives. Then we *remember ourselves* and our relative place in a larger reality.

---

21　Indeed, this *reaching into* a film is necessary for the most foundational feature of cinema, the illusion of motion, to occur. Given that film is simply a sequence of still images, it is in fact the viewer who projects the illusion of motion onto their rapid succession. The physiology behind why our brains convert a series of still images into motion remains contested, with some speculating that it is due to a principle known as the Persistence of Vision (that is, the momentary imprinting of images on the retina) or the *Phi* Phenomenon. See (Anderson and Fisher (1978)) and (Anderson and Anderson (1993)).

As we shall see presently, this existential oscillation is paralleled in the experience of watching films, in the infinitesimal movements between absorption and disbelief.

## 5. Boredom and the Boundaries of the Self

Must we *enjoy* a film for it to have a transformational impact on us? What about films that are bad or boring? What actually *happens* when we watch a boring film? A phenomenology of boredom, I suggest, begins with a feeling of disengagement; a sudden, growing awareness of the *distance* between ourselves and the film. Indeed, boredom actually requires a high degree of self-awareness; the feeling of boredom, I suggest, consists in large part of the *awareness* of the fact that one is bored. Unlike the non-discursive moments upon first waking up, when we have not yet remembered ourselves, boredom takes you out of the immediacy of experience and makes you self-aware[22]. Boredom, we might say, is the experience of being hyper-aware of the distance between ourselves and that which we had hoped would engage us. We acutely feel the gap. We are *here*, watching this terrible film, and the film is *there*, playing before us. Time is passing. Things might happen in the film, but those things do not involve us. Boredom is an experience of radical separation.

Ordinarily, we would say of a boring film that it is *bad*; if we are not engrossed, we consider the film a failure. In a recent interview, however, filmmaker Paul Schrader[23]—author of the classic *Transcendental Style in Film* (Schrader 1972)—proposes a salient framework for thinking more carefully about the existential function of boredom[24]. He describes the alternation between audience engagement and separation as a "leaning toward" and a "leaning away". Some films, he explains, *lean toward* their audience. They "lean toward you aggressively with their hands around your throat, trying to grab every second of your attention" (Schrader, quoted in Teti 2018). These are films, or moments in a film, that bombard the viewer with stimulation. The film takes over and controls you; there is little or no space for the audience to "read into" the film. Everything is given.

In contrast to this model, Schrader describes a different approach, one that incites audience participation by adopting what is "essentially a withholding device" (ibid.). These films or filmic moments "lean away from you. They use time—as other people would call it, boredom—as a technique" (ibid.). What does this technique do? One thing it does, says Schrader, is create "dead time". This is time in a film when, ostensibly, nothing is happening. Schrader cites a few examples: Pawel Pawlikowski's 2013 film, *Ida* (Pawlikowski et al. 2014), Chantal Akerman's 1975 film, *Jeanne Dielman, 23 Quay Du Commerce, 1080 Bruxelles* (Akerman et al. 2009), and the famous coffee scene in De Sica's masterful 1952 film, *Umberto D* (De Sica et al. 2004). In this scene, we see the maid of the house wake up and prepare herself a cup of coffee, step-by-step, in real time. She lights the stove, looks out the window, boils water, grinds the beans, pushes a door shut with her foot. The whole sequence lasts four and a half minutes—an eternity in cinematic time!—and arguably serves no narrative purpose. Schrader focusses on one of the details of the scene that seems especially superfluous: the maid strikes the match three times before successfully lighting the stove. Rather than cut when the stove does not light on her first attempt, De Sica allows the action to play out in its entirety.

> Now in real life you don't watch dead time. [In] De Sica's *Umberto D* . . . the famous shot of the maid striking the match three times . . . was no longer about the activity of striking

---

[22] Incidentally, one of the most common early hurdles of meditation training is grappling with—and eventually learning to enter into and engage—the experience of boredom.

[23] Paul Schrader is known for co-writing Martin Scorsese's 1976 *Taxi Driver* (Scorsese et al. 2005), 1980 *Raging Bull* (Scorsese et al. 1996), 1988 *The Last Temptation of Christ* (Scorsese et al. 2000), and 1999 *Bringing Out the Dead* (Scorsese et al. 2000), as well as his own work directing eighteen feature films, including the critically-acclaimed 1980 film, *American Gigolo* (Schrader et al. 2000), 1985's *Mishima: A Life in Four Chapters* (Schrader et al. 2008), and his most recent film, *First Reformed* (2018).

[24] Saliently, social anxiety about the incursion of technology and social media into both public and private spheres of life seems to have generated an uptick in mainstream interest in the value of boredom, as illustrated by the popularity of self-help books like Manoush Zomorodi's *Bored and Brilliant: How Spacing Out Can Unlock Your Most Productive and Creative Self* (Zomorodi 2017).

the match. It was about how long you're going to sit and watch. The filmmaker is using the power of cinema against itself to get you into a sense that you have to *participate*. (italics added, ibid.)

When a film *leans away*, we remember ourselves. The distance between the viewer and the film increases, and we are tasked with trying to narrow the gap ourselves. As Schrader explains, the film's withholding incites audience participation. When the film *leans away*, the viewers have to *lean in*. This withholding, however, must eventually be balanced with a gesture of release.

If you consistently withhold, and now the viewer is leaning toward you, now you have to, I think, in a certain moment, free them. Do something unexpected. In *Ida* it's the tracking shot at the end. In Bresson, it's just a burst of music. You show a movie for an hour and a half or two hours with no music at all, and all of a sudden at the end: *boom*! They blast Mozart . . . . The characters in Ozu's films never show any emotion at all, and then at the end: *whamo*! There's a big blast of emotion. (ibid.)

It is precisely this alternation—of deliberately increasing the distance between the audience and the film, and then suddenly collapsing it again—that is the dance of cinema. Every film engages in this dance with each beat, each moment, each choice, each scene. By leaning toward us and then leaning away—by causing us to forget ourselves and then remember—film pushes and pulls not only the boundaries of our attention, but of our self-awareness.

## 6. The Edit and Intermittence

It is more than mere poetic flourish to describe this alternation as a dance, since all dance is primarily about balance and timing. Film editors understand this better than anyone because they set the punctuation and rhythm of a film. One of the primary means through which films can incite audience engagement is the manipulation of duration[25]. Celebrated editor Walter Murch[26] says as much when describing his work as an editor.

Your job is partly to anticipate, partly to control the thought processes of the audience. To give them what they want and/or what they need just before they have to 'ask' for it—to be surprising yet self-evident at the same time. If you are too far behind or ahead of them, you create problems, but if you are right with them, leading them ever so slightly, the flow of events feels natural and exciting at the same time. (Murch 2001, p. 69)

Murch is describing a dynamic alternation akin to that discussed by Schrader, and he reaches the same conclusion: that striking a skillful balance between revelation and concealment—between giving and withholding, *leaning toward* and *leaning away*—incites a special level of participation in the viewer.

But what *is* editing and what does it *do*? Film, most fundamentally, is an art of intermittence. This seems counterintuitive. After all, films *feel* continuous and fluid. They usually follow a narrative trajectory, moving from beginning, middle, to end. Yet, as all film editors know, this impression of continuity is the product of a painstaking curation of discontinuity. As Murch explains, it requires a

vast amount of preparation, really, to arrive at the innocuously brief moment of decisive action: the cut—the moment of transition from one shot to the next—something that, appropriately enough, should look almost self-evidently simple and effortless. (Murch 2001, p. 4)

---

[25]　This is precisely what Schrader says when describing how films "lean away": they "hold on shots too long" and "are not going to cut" (Teti 2018).

[26]　Walter Murch, author of *In the Blink of an Eye: A Perspective on Film Editing* (Murch 2001), is a film editor and sound designer, best known for his work on Francis Ford Coppola's 1979 film, *Apocalypse Now* (Coppola et al. 2010), *The Godfather* trilogy (Coppola et al. 2008), and Anthony Minghella's 1996 *The English Patient* (Minghella et al. 2004).

Indeed, it is quite remarkable that films should feel continuous at all, given that, strictly speaking, *every* moment in a film is one of discontinuity. There is the jump from one scene to the next (which often involves a radical disjunction of physical space or time), as well as the jump, usually several times per second, between one shot and the next (which requires reorienting our visual position within the scene), and even, on the most basic level, the discontinuity that makes the illusion of motion itself possible: the sequential projection of 24, 30, or as we have discussed, 48, 60 or up to 120 still images per second. As Murch remarks,

> the mysterious part of it . . . is that the joining of those pieces—the "cut" in American terminology—actually does seem to work, even though it represents a total and instantaneous displacement of one field of vision with another, a displacement that sometimes also entails a jump forward or backward in time as well as space. (Murch 2001, p. 5)

The question, then, is how can such a seemingly unintuitive process—the radical use of discontinuity in film—feel so natural?

Here, again, I suggest the power of film is its ability to mirror a fundamental aspect of our existential situation: namely, the constant experience of intermittence in our daily lives. There is summer and then winter, night and then day, we sleep and wake up, we inhale and exhale, we blink. Editor and filmmaker Nathaniel Dorsky expresses this eloquently in a passage where he notes, in concert with Buddhist doctrinal ideas, that the principle of discontinuity even applies to our very notion of selfhood.

> On a visceral level, the intermittent quality of film is close to the way we experience the world. We don't experience a solid continuum of existence. Sometimes we are here and sometimes not . . . . After all, do any of us know *who* we actually are? Although we assume that we are something solid, in truth we only experience and maneuver through our existence . . . . We try to make the whole thing seem continuous and solid, but it's actually more intermittent than we often want to admit. In a sense, for film to be true, it has to trust this intermittence. (Dorsky 2003, p. 30)

Murch gives us a concrete example of this intermittence at work in our daily lives: we blink. Each blink, he argues, is a "cut". Even the seemingly continuous flow of our visual experience is, in fact, created by stitching together discontinuities. We create a montage. Murch first realized this while reading an interview with the legendary director John Huston, who proposed a practical exercise (which you can do as you read):

> Look at that lamp across the room. Now look back at me. Look back at that lamp. Now look back at me again. Do you see what you did? You *blinked.* Those are *cuts.* After the first look, you know that there's no reason to pan continuously from me to the lamp because you know what's in between. Your mind cut the scene. First you behold the lamp. *Cut.* Then you behold me.[27] (Huston, quoted in Murch 2001, p. 60)

This suggests one reason the discontinuities of film feel so natural—imperceptible, even—is because we operate with such discontinuities all the time. Like a film, which an editor chops up and then reassembles, we are continuously chopping up and reassembling our experience. We do this visually, as in Murch's example of how we blink, as well as in "our own thoughts—the way one realization will suddenly overwhelm everything else, to be, in turn, replaced by yet another" (Murch 2001, p. 57), or even in our large-scale perceptions, as when our interest in something causes it

---

[27] Murch continues, "What Huston asks us to consider is a physiological mechanism—the blink—that interrupts the apparent visual continuity of our perceptions: my head may move smoothly from one side of the room to the other, but, in fact, I am cutting the flow of visual images into significant bits, the better to juxtapose and compare those bits—'lamp' and 'face' in Huston's example—without irrelevant information getting in the way" (Murch 2001, p. 60).

to stand out, while other information fades into the background (as illustrated by the famous "invisible gorilla" test[28]). Indeed, Murch has observed people unconsciously curating their blinks in real time. People, he writes,

> will sometimes keep their eyes open for minutes at a time—at other times they will blink repeatedly—with many variations in between . . . On the one hand, I'm sure you've all been confronted by someone who was so angry that he didn't blink at all: This is a person, I believe, in the grip of a single thought that he holds (and that holds him), inhibiting the urge and need to blink. And then there is the opposite kind of anger that causes someone to blink every second or so: this time, the person is being assailed simultaneously by many conflicting emotions and thoughts, and is desperately (but unconsciously) using those blinks to try to separate these thoughts, sort things out, and regain some sort of control. (Murch 2001, p. 61)

Blinks, in other words, mark a point of transition from one thought to the next. They are a kind of physiological punctuation that enables one to pass from engagement to disengagement[29]. Like Schrader's "leaning toward" and "leaning away," it is the *alternation* here that is vital. As Murch puts it, "the blink is either something that helps an internal separation of thought to take place, or it is an involuntary reflex accompanying the mental separation that is taking place anyway" (Murch 2001, p. 62). Blinking, then, points to a fundamental principle of our existence that also finds expression in the cinematic form: namely, that the flow of our experience requires not only continuity, but discontinuity as well.

## 7. The Uncanny Valley: Affinity and Difference

A great deal of popular discourse about ethics revolves around a central assumption: that we need but recognize our *similarity* with the "other" in order to get along. This assumption underpins much mainstream rhetoric against xenophobia, discrimination, and even speciesism[30]. In light of the foregoing discussion, however, I would like to challenge this perspective, suggesting that interpersonal ethics require a dynamic alternation between intimacy and distance, between similarity and difference. Like discontinuity, difference is not only natural, but necessary.

Experiments in film, virtual reality, and robotics support this assertion, as most famously expressed in the theory of the "uncanny valley," first proposed in the 1970s by Masahiro Mori, a Professor of robotics at the Tokyo Institute of Technology. Mori's theory—inspired by his own childhood aversion to life-size wax figures and prosthetic hands—posits that our feeling of affinity for anthropomorphized non-sentient creatures, such as robots, does not actually increase in direct proportion to their human likeness. Rather, we feel strong affinity for creatures who are either *identical* to us (such as other humans) or who, despite a degree of human similarity, remain unambiguously non-human (like *anime* characters or the robot R2-D2 in *Star Wars*, who may boast human characteristics but would never be mistaken for human beings). In contrast, as Hund et al. explain, creatures who very closely resemble but are not identical to humans "elicit intensely aversive responses in an

---

[28] The "invisible gorilla" test was a research project by Christopher Chabris and Daniel Simons (Chabris and Simons 2010) designed to demonstrate selective attention bias. In the experiment, viewers are asked to watch a video of people passing a basketball and count the number of passes. Meanwhile, a person in a gorilla suit walks in and out of the frame. Because viewers are focused on the ball, they fail to notice the gorilla.

[29] Scientific research on blinking supports several of Murch's observations. A 2013 study by Tamami Nakano (Nakano et al. 2013) concluded that the precise moments when we blink are not random. "Although seemingly spontaneous, studies have revealed that people tend to blink at predictable moments. For someone reading, blinking often occurs after each sentence is finished, while for a person listening to a speech, it frequently comes when the speaker pauses between statements. A group of people all watching the same video tend to blink around the same time, too, when action briefly lags" (Nagano, paraphrased by Stromberg 2012).

[30] See salient critiques of this, however, raised by (Singer (1975)) and (Midgley (1983)).

onlooker, who will experience them as uncanny" (Hund et al. 2015, p. 87)[31]. This feeling of aversion has posed a serious problem for CGI animation. Indeed, to avoid the uncanny valley, many films featuring non-human characters—such as James Cameron's 2009 film, *Avatar* (Cameron et al. 2010) or Alex Garland's 2014 *Ex-Machina* (Garland et al. 2015)—have chosen *not* to use CGI to animate the non-human characters from scratch, opting instead to have these roles played by human actors, whose performances are then made to look *less* human with CGI after-the-fact. In other words, rather than use CGI to make a virtual character appear more human, it is used to render a human performance *less* human[32].

The notion of the uncanny—something that is "frightening in a distinctive, difficult to specify way . . . . creepy, eerie, unsettling, horrifying, and yet fascinating" (Hund et al. 2015, p. 86)—was perhaps best theorized by Ernst Jentsch in his 1906 essay, *On the Psychology of the Uncanny* (which later became an inspiration for Freud's famous essay on the same topic in 1919). Long before Mary Douglas' work on categorical ambiguity (Douglas 1984), Jentsch proposed that the profoundly discomfiting experience of the uncanny, *unheimlichkeit*, is actually a kind of cognitive paralysis[33] that results from categorical uncertainty about what a thing *is*, in particular, whether it is animate or inanimate[34]. As Hund explains,

> we experience a thing as uncanny if we regard it as belonging to two, incompatible kinds. One of [Jentsch's] examples concerns the reactions that some people have when viewing lifelike figures in a wax museum. The viewer knows that she is looking at inanimate simulacra of human beings, but nevertheless cannot help responding to them as human beings. Consequently, her mind is pulled in two antithetical directions at once. Categorizing the figures as both human and non-human, she is unable to fully settle on one interpretation to the exclusion of the other. This is Jentsch's paradigm for understanding the uncanny. It is the seemingly contradictory or interstitial character of a thing that imbues it with an aura of '*umheimlichkeit*'. (Hund et al. 2015, p. 86)

Mori provides several examples of the uncanny: the masks used in *Noh* drama, prosthetic appendages, a human corpse[35]. In each case, these non-human objects transcend the "established category of 'other' (animal, object), [and] begin to approach the human, but the likeness is not perfect" (Hanson et al. 2005, p. 30). This results in a categorial anomaly: they are not quite self, not quite other, and this produces a powerful anxiety[36].

Mori's theory of the uncanny is salient for us because it illustrates that *difference* plays a vital role, paradoxically, in establishing feelings of affinity and closeness. When the distance created by this

---

[31] Mori illustrates his point using a graph that has since become quite famous. Charting emotional affinity relative to human likeness, the graph displays a steady increase in affinity as the non-human entity becomes increasingly humanlike, until suddenly the affinity line plummets; this is the uncanny valley.

[32] The uncanny effect of many CGI characters is often due to extremely subtle movement and micro expressions, things that most viewers do not consciously perceive but can "feel". As Michelle et al. note, "virtual bodies often appear unconvincing because they do not conform to the physical norms and laws that viewers associate with and recognize from actual human bodies and movements, being subject to gravity and laws of physics governing mass, motion, impact, and so on, and with particular muscular and skeletal movements" (Michelle et al. 2017, p. 12). See also (Purse (2007)) and (Lamarre (2006)).

[33] Some have proposed evolutionary explanations for the uncanny valley effect, relating to mate selection, pathogen avoidance, mortality salience (that is, avoidance behaviors related to the awareness of one's death), and threat avoidance. These theories, however, remain far from conclusive, see (Smirnov and Pracejus (2011)) and (MacDorman and Chattopadhyay (2017)).

[34] As Jentsch noted, "Among all the psychical uncertainties that can become a cause for the uncanny feeling to arise . . . there is one in particular that is able to develop a fairly regular, powerful and very general effect: namely, doubt as to whether an apparently living being really is animate and, conversely, doubt as to whether a lifeless object may not in fact be animate" (Jentsch 1997).

[35] Jentsch also identified the human corpse as an example of the uncanny, noting that we find the corpses of familiars uncanny because they simultaneously occupy two incompatible categories: "As Jentsch pointed out, corpses are experienced as uncanny [*unheimlich*] because we tend to see them simultaneously as persons (the 'dear departed') and as cold slabs of inanimate flesh" (Smith 2018, p. 11).

[36] Some work has argued that reactions to the uncanny valley are not purely negative. Hanson et al. argue, for instance, that the uncanny valley can produce not only feelings of danger or anxiety, but also "'surreal' (dreamlike) feelings, rather than fear" (Hanson et al. 2005, p. 30).

difference is transgressed—as in the example of wax figures that can be classified as neither human nor not-human—it gives rise to a powerful sense of revulsion. Affinity and affective connection, in other words, *need* difference; closeness *requires* distance. Saliently, in proposing his own response to the problem of the uncanny valley in robotics, Mori draws inspiration from Buddhism[37]. Mori suggests that in the fabrication of prosthetic hands, where the issue of uncanniness can be problematic, designers might follow the aesthetic principles at work in sculptures of Buddhas and bodhisattvas. In his original essay on the uncanny valley, *Bukimi No Tani Genshō*, Mori writes,

> Consider this model of a human hand created by a woodcarver who sculpts statues of Buddhas. The fingers bend freely at the joint. The hand lacks fingerprints, and it retains the natural color of the wood, but its roundness and beautiful curves do not elicit any eerie sensation. Perhaps this wooden hand could also serve as a reference for design. (Mori 2012, p. 100)

In other words, the key to this design's success lies in its ability to achieve similarity while preserving difference. Although the hand resembles a human hand in its shape and movement, it deliberately includes features that foreground *difference*, like the unadulterated color of the natural wood and the absence of fingerprints. Mori's insight echoes the motif we have developed throughout this essay about the vital importance of *alternation*: similarity followed by difference, intimacy followed by distance, continuity followed by discontinuity. What is essential is the alternating ebb and flow, rather than a melding of categories.

## 8. "Trans-Descendental" Style in Film: Something More from Something Less

So far, we have seen a variety of examples of interstitial gaps or techniques of *withholding*: the importance of preserving difference to avoid the uncanny valley, the way discontinuity in film editing mirrors how we process information in daily life, the special engagement created by distance when a film "leans away". What all these examples have in common is that their withholding is *generative*. As Schrader, Murch, and Dorsky have all noted, this withholding allows something *new* to arise. Something *less*, in other words, gives us something *more*. But, what precisely is this "more"? How it is possible that less is more? How does this "more" come about?

One way to approach these questions, I suggest, is with appeal to the principle of emergence. In its most basic formulation, emergence refers to a self-ordering system in which lower-order dynamics give rise to more complex, higher-order patterns[38]. One of the most salient discussions of the principle of emergence, in my opinion, occurs in Eduardo Kohn's book, *How Forests Think* (Kohn 2013), which touches specifically on the question of how *something less* can give rise to something more. Kohn discusses the example of a whirlpool in a river, where the former is an emergent property of the latter. "Whirlpools possess novel properties with respect to the rivers in which they appear; namely, they come to exhibit a coordinated circular pattern of moving water" (Kohn 2013, p. 166). What is significant for us is that the whirlpool's emergent property—that is, its circular pattern of movement, the "something more" it displays with respect to the river in general—results from *constraint*, from a withholding, what Kohn calls "*something less*":

> This circular pattern in which the water in the whirlpool flows is more constrained and simpler than the otherwise freer, more turbulent, and hence less patterned flow of water in the rest of the river . . . . Water flowing through a whirlpool does so in a way that is

---

[37]　A lifelong Buddhist, Mori went on to write a book about the intersection of Buddhism and robotics, *The Buddha in the Robot* (Mori 1981).

[38]　See (Deacon (2008)). An oft-cited example of emergence is the ant colony. As far as we know, individual ants are not consciously aware of the larger architectural project in which they are involved, and there is no master ant-architect orchestrating the group's efforts. Yet, the cumulative result of each ant's individual activity is the tremendously complex and elegant structure of the ant colony. In other words, the ant colony is an emergent property that arises from each ant's work. For fascinating research that uses the theory of emergence to analyze the self-organization behaviors of ants, see the work of Deborah Gordon (Gordon 1999) at the Gordon Lab of Stanford University.

less free when compared to all the various less coordinated ways in which water otherwise moves through a river. This redundancy—this something less—is what results in the circular pattern of flow we associate with whirlpools. (ibid.)

Kohn's discussion of *something less* adds a vital dimension to the theory of emergence. We often assume that more is better than less, higher is better than lower, sophistication is better than simplicity, freedom is better than constraint. Yet emergence, in Kohn's presentation, confronts us with precisely the opposite view: the emergent property, the "something more," is precisely the result of constraint, of *withholding*, of "something less". Emergence does not *arise* but *descends*; it is not epiphenomenal or transcendent, but closer to a principle Kyoto School philosopher (and Nishitani's teacher), Nishida Kitarō (1870–1945), described as "trans-descendence". That is, Nishida sought to avoid the fallacy of "antinomial regress" that he saw throughout Western philosophy, whereby all oppositions—subject and object, thesis and antithesis—are resolved with appeal to a higher, external unifying force (synthesis). But as we have seen, notably in our discussion of the emptiness of emptiness in Mahāyāna Buddhism, appealing to a notion of transcendent synthesis does not, in fact, resolve the problem of dualism, but merely moves the dualism to a higher level[39]. Nishida's response to this problem was to posit a change of direction: non-duality is not to be achieved by transcending dualism (since transcendence, by definition, is itself dualistic), but rather by a deliberate step back, a regress. As James Heisig puts it, this was

> not meant to simply relativize the opposites from a higher standpoint . . . . It was not a matter of finding a standpoint from which to 'transcend' opposition but rather of bringing it down to a problem of consciousness, a standpoint of 'transdescendence' as [Nishida] called it". ([Heisig 2001](), p. 64)

The goal of "transdescendence," which was later also taken up by Nishitani, is not to seek out a higher-order resolution to the problem of dualism, but instead to *descend into* dualism itself in order to resolve it from within.

This framework offers a salient way to think about film. We often assume the value of film—or of art in general—is tied to what it *means*. Meaning is treated as the film's emergent property; it is the "something more" we must grasp if we are to *understand* the film. Yet astute critiques put forth by theorists like Francisca Cho and David MacDougall, among others, have thrown the primacy of meaning into question. Cho, for example, argues that film calls us to develop a mode of engagement that differs from the meaning-driven, discursive "literary approach that assumes film should be read like a text" ([Cho 2008](), p. 1). Instead, she advocates for a mode of "aesthetic, sense-based learning" (ibid.) and a "certain way of seeing experience [that] refuses certainty of meaning in favor of a meaningful uncertainty" ([Cho 2008](), p. 4). Quoting MacDougall, she warns,

> 'the meaning we find in what we see is always both a necessity and an obstacle. Meaning guides our seeing. Meaning allows us to categorize objects. Meaning is what imbues the image of a person with all we know about them. But meaning, when we force it on things, can also blind us, causing us to see only what we expect to see or distracting us from seeing very much at all'. ([Cho 2008](), p. 3)

This view is echoed by filmmaker Nathaniel Dorsky. In a statement reverberating with echoes of Emmanuel Levinas[40], Dorsky explains that when we defer to the tyranny of meaning, we render

---

39  As Feenberg and Arisaka explain with reference to Nishida's approach to the opposition of subject and object, "In [the] customary view, we take the subject and object of knowledge as forming together an object for a higher self-consciousness which perceives them as mutually determining. This critical perception, in turn, can become an object of reflection for a still broader self-consciousness which can itself be considered as a candidate for further reduction to an element in a higher unity, *ad infinitum*. At no point do subject and object escape the antinomial regress" ([Feenberg and Arisaka 1990](), p. 187).

40  The affirmation of transcendence within immanence, a major philosophical preoccupation of the Kyoto School, has a long tradition in Western philosophy as well (in, for instance, Levinas' *Ethics and Infinity* ([Levinas 1985]()) or, more recently, in

the "other"—in this case, the film—to our own measure, foreclosing the possibility of surprise and genuine encounter. As Dorsky puts it, if a film

> fails to take advantage of the self-existing magic of things, if it uses objects merely to *mean* something, it has thrown away one of its great possibilities. When we take an object and make it mean something, what we are doing, in a subtle or not so subtle way, is confirming ourselves. We are confirming our own concepts of who we are and what the world is. But allowing things to be seen for what they are offers a more open, more fertile ground than the realm of predetermined symbolic meaning. After all, the unknown is pure adventure. (Dorsky 2003, p. 38)

One of my favorite examples of a cinematic moment that defies epiphenomenal "meaning" is the penultimate shot in Claire Denis' 1999 film, *Beau Travail* (Denis et al. 2002). At this point in the story, the main character is contemplating his life, and even whether he should keep living at all. Holding a revolver, he lies down on his bed. The camera slowly pans from the revolver, to his chest, to his arm, where we see the beating of his pulse through a throbbing vein along his inner bicep. Although this image is just a brief moment in a shot that is itself a brief moment in an overarching narrative with multiple "meanings," there is a way in which this image doesn't *mean* anything at all. That is, the pulsating vein is not referential; it does not point to anything beyond itself from which to derive its meaning. It just *is itself*; indeed, it is just *life* itself. Even though the beating vein may, of course, be given any number of symbolic meanings, it is also—and, I would suggest, most importantly—*not* working on a higher-order symbolic level, but simply on the level of the iconic[41]. The visceral power of this image, in my view, is precisely that it *does not* move the viewer toward a higher-level meaning, but that it brings the viewer *down*, to the lower-order logic of appearances. To borrow Nishida's concept, this moment is an instant of *trans-descendent* cinema. It extracts us from the higher-order narrative of the film—with its story, its characters, its emotional crescendo—and lowers us into a glimpse of life that is nothing other—nothing more, nothing less—than just life itself. It is a spontaneous eruption of *lifenesss.*

## 9. Go to the Pine to Learn of the Pine: Ethics and Appearances

*Appearances* usually get a bad rap. Because they are superficial, they are seen as less valuable than that which is deep. Yet, as John Berger persuasively argues in his and Jean Mohr's remarkable book, *Another Way of Telling* (Berger and Mohr 1982), the power of appearances lies *precisely* in their superficiality; that is, in the fact that they are nothing else than what they are. This runs directly counter to the assumption that value lies primarily in depth, in that which *underlies*, in the revelation of that which is concealed. Instead, the value of appearances lies in the appearances themselves; they are irreducible. This recalls the "suchness" in the *haiku* poetry of Matsuo Bashō (1644–1694), highly celebrated in Buddhist circles. Bashō said of his own method: "Go to the pine if you want to learn about the pine, or to the bamboo if you want to learn about the bamboo" (Bashō 1966, p. 33). Here Bashō is making a point about iconic irreducibility. To learn of the pine, one need not refer to anything else but the pine itself; not books about the pine, photos of the pine, discourse about the pine. In phenomenological terms, one should go to the thing itself. This, of course, resonates with the Buddhist idea of suchness (*tathātā*, Ch. *zhenru* 真如, sometimes rendered in English as "thusness").

---

works like Rivera's *The Touch of Transcendence* (Rivera 2007). Indeed, a major focus of the Kyoto School was to creatively combine Mahāyāna Buddhist philosophy and European continental thought. Nishida's Buddhist philosophy, for example, sought to actively incorporate the insights of William James' notion of "pure experience," and Nishitani famously studied with Heidegger in Germany, where it is speculated that both thinkers deeply influenced each other's work.

41　One of the most effective discussions of the principle of iconicity and the broader system of semiotics is that put forth by Charles Sanders Pierce (which Kohn also discusses at length). Pierce proposed three levels of semiotic signification: the iconic, in which the sign resembles its referent (like a photograph of a fire and a real fire); the indexical, in which the sign does not resemble but has a relationship with the referent (like smoke and fire); and, finally, the symbolic, in which the sign's relation to the referent is utterly arbitrary (like the word "fire" and the phenomenon of fire).

Suchness is irreducible. Not subject to the dualistic judgments of discursive thought, suchness does not point beyond itself because, by definition, *it is* just *such as it is*. To encounter phenomena in their suchness calls for something like a phenomenological *epoché*; in Buddhist terms, we must not project our usual mental discriminations onto things, but simply encounter them as they are. In semiotic terms, this is closest to the iconic—that is, the level of *appearances*—since, unlike indexical or symbolic signification, icons do not *refer*. On the iconic level, things simply *are* such as they *are*.

This approach also suggests a new perspective on the relation between so-called higher-order and lower-order phenomena. Not only does it disrupt the conventional assumption that complexity is inherently more valuable than simplicity, but it even suggests that the former might be inextricably dependent on the latter. In their own ways, Pierce, Berger, and Kohn all agree on this point: namely, that supposedly higher-order phenomena—such as language, morality, and ethics—may, in fact, *be derived* from these lower-order phenomena, rather than the reverse. Kohn, for instance, shows that higher-level semiotic systems—indexicality and symbolism—are actually derived from and dependent on iconicity[42]. The world of icons and appearances, in other words, is not secondary to our higher-level symbolic systems of thought, language, and representation; rather, it is our supposedly "higher-level" systems that are derived from iconicity, from the basic web of appearances in which all humans and animals are embedded at the most atavistic level.

In his behavioral work studying primates, ethologist Frans De Waal reaches similar conclusions, arguing that complex moral behavior in primates, like empathy, is derived from a pre-discursive iconic—that is, appearance-based—process he calls "emotional contagion". De Waal describes emotional contagion, which is widely shared throughout the (human and non-human) animal world, thus:

> At the core of the empathic capacity is a relatively simple mechanism that provides an observer (the 'subject') with access to the emotional state of another (the 'object') through the subject's own neural and bodily representations. When the subject attends to the object's state, the subject's neural representations of similar states are automatically activated . . . (changes in heart rate, skin conductance, facial expression, body posture). This activation allows the subject to get 'under the skin' of the object, sharing its feelings and needs, which in turn fosters sympathy, compassion, and helping. (De Waal 2006, p. 37)

Significant for our purposes is that this empathic capacity is made possible by *appearances*; emotional contagion is essentially an iconic process of mimesis. In the same way that the indexical and the symbolic rely on the iconic, De Waal argues that complex moral behaviors can be ultimately traced back to mimetic emotional contagion—in other words, to the ethics of appearances[43] (De Waal 2006, p. 39).

These are but a few examples of research that might inspire us to think differently about the vital importance of appearances. Even our most celebrated higher-order capacities—like language, symbolic communication, and ethical behavior—might themselves depend on the primordial and irreducible power of appearances. In his writing about photography, John Berger suggests that photographs have an existential power precisely because they engage us on this primordial level. "The *look* of the world," he writes, "is the widest possible confirmation of the *thereness* of the world, and thus the look of the world continually proposes and confirms our relation to that thereness, which nourishes our sense of Being" (Berger and Mohr 1982, p. 87).

---

[42] As Kohn explains, referencing Deacon's work, "something emergent is never cut off from that from which it came and within which it is nested because it still depends on these more basic levels for its properties" (Kohn 54). The iconicity of appearances, Kohn argues, is fundamental to all levels of signification, including the symbolic and indexical, each of which is "nested" in the level below: the symbolic depends on the indexical, just as the indexical depends on the iconic. All semiotics, in other words, rest on the foundation of iconicity, that is, of *appearances*.

[43] Similar research investigating the connection between mimetic behavior and moral development is being done on the phenomenon of yawn contagion, which researchers think is an involuntary mimetic behavior that correlates with empathic capacity. See (Norscia et al. (2011)), "Yawn Contagion and Empathy in Homo Sapiens".

## 10. Concluding Remarks

In his book, *Devotional Cinema*, Nathaniel Dorsky makes a salient reflection on a fundamental paradox of human life that, in many ways, is at the heart of this essay. He muses,

> As human beings we find ourselves in a strange situation. We have the same basic qualities, problems, emotions, and interests that animals have: we experience danger and often need to defend ourselves, we need to eat and sleep, we feel anger and tenderness, and we reproduce. At the same time, we also have the ability to observe this entire experience, to see through the moments of anger, fear, and tenderness rather than just experience them. We are part of our experience and yet we can see through it. We can see through it, yet we are not free from it. We are both appreciators and victims of material existence. (Dorsky 2003, p. 18)

This, in a sense, is the same paradox articulated by Nishitani; namely, the tension between the eye's seeing and its quest to see the eye itself. In this essay, I have argued that film can have a therapeutic function by virtue of its ability to echo this state of paradoxical alternation: as we watch, we lean toward a film and away from it, we are engrossed and we are bored, we experience intimacy and distance. This dialectical ebb and flow is at the core not only of film but of all experience: even the highest reaches of meaning and symbolic discourse, as we have seen, flow back to the basic and primordial building blocks of appearances. As Berger put it, "when we give meaning to an event, that meaning is a response, not only to the known, but also to the unknown: meaning and mystery are inseparable" (Berger and Mohr 1982, p. 89).

Focusing on the phenomenon of light—which is at the very heart of cinematography—Berger makes a salient observation about the interface of art and life through the mediation of appearances. He writes, "seeing and organic life are both dependent upon light, and appearances are the face of this mutuality" (Berger and Mohr 1982, p. 114). This notion of the mutuality made possible by appearances might give us a framework through which to conceptualize the relation between film, or art in general, and the state of our being in the world. As Berger notes, light is the condition for the possibility not only of cinema, but of sight itself; it is that which enables us to *see*. And yet it is also that which enables us to *exist*: molecularly, our bodies are nourished by the sun on our skin; heat is a condition for all forms of life; the foundation of the entire food chain rests on photosynthesis. Thus, in Berger's formulation, light is that which nourishes life and also that which sustains perception; it is the condition for the possibility of the *thing itself*, as well as the means through which we might become *aware* of the thing. As Nishitani would put it, it is the eye's ability to see, and the seeing of the eye itself. I have proposed that our alternation between these states—our being *in* our experience, along with our ability to *see* ourselves in our experience—is a foundational dynamic that is mirrored in film. Through this mirroring, film sheds light on our own experience of what it feels like to be alive: by capturing the "self-existing magic" of appearances, *being* and *seeing* interface in film, like the remembering and forgetting of our selves. Film allows us both to *be* and to *see,* and this is its therapeutic power.

**Conflicts of Interest:** The author declares no conflict of interest.

## References

Akerman, Chantal, Evelyn Paul, Delphine Seyrig, Jan Decorte, Henri Storck, Jacques Doniol-Valcroze, Yves Bical, Babette Mangolte, Sami Frey, and Ivone Margulies. 2009. *Jeanne Dielman, 23, Quai Du Commerce, 1080 Bruxelles*. Irvington, New York: Criterion Collection.

Alonso, Lisandro, Francisco Vargas, Yolanda Dornez, Cobi Garlaza, and Flormaleva Migliora. 2005. *Los Muertos*. Buenos Aires: SBP S.A. Worldwide.

Altman, Robert, Joan Tewkesbury, Henry Gibson, Ronee Blakley, Keith Carradine, Lily Tomlin, and Gwen Welles. 2016. *Nashville*. New York: Criterion Collection.

Bashō, Matsuo. 1966. The Narrow Road to the Deep North: And Other Travel Sketches. Harmondsworth: Penguin.

Bazin, André. 2005. *What Is Cinema?: Essays*. Berkeley: University of California Press.

Berger, John, and Jean Mohr. 1982. *Another Way of Telling*. New York: Pantheon.

Bernstein, Leonard. 1992. *The Unanswered Question: Six Talks at Harvard*. West Long Branch: Kultur.

Cameron, James, Jon Landau, Mauro Fiore, Colin Wilson, Laeta Kalogridis, Sam Worthington, Zoë Saldana, Stephen Lang, Michelle Rodriguez, Giovanni Ribisi, and et al. 2010. *Avatar*. Beverly Hills: 20th Century Fox Home Entertainment, Lightstorm Entertainment.

Chabris, Christopher F., and Daniel J. Simons. 2010. *The Invisible Gorilla: And Other Ways Our Intuitions Deceive Us*. New York: Crown.

Cho, Francisca. 2008. Buddhism, Film, and Religious Knowing: Challenging the Literary Approach to Film. In *Teaching Religion and Film*. Oxford and New York: Oxford University Press.

Coppola, Francis Ford, Albert S. Ruddy, Marlon Brando, James Caan, Richard Castellano, Robert Duvall, Sterling Hayden, John Marley, Ricard Conte, Al Lettieri, and et al. 2008. *The Godfather*. Hollywood, California: Paramount.

Coppola, Francis Ford, John Milius, Kim Aubry, and Joseph Conrad. 2010. *Apocalypse Now*. Santa Monica: Lionsgate.

De Sica, Vittorio, Cesare Zavattini, Carlo Battisti, Maria Pia Casilio, and Lina Gennari. 2004. *Umberto D*. London: Nouveaux Pictures.

De Sica, Vittorio, Cesare Zavattini, Gerardo Guerrieri, Lamberto Maggiorani, Enzo Staiola, Lianella Carell, Gino Saltamerenda, Vittorio Antonucci, Giulio Chiari, Elena Altieri, and et al. 2007. *Bicycle Thieves: Ladri Di Biciclette*. Irvington and Santa Monica: Criterion Collection.

De Waal, Frans B. M. 2006. *Primates and Philosophers: How Morality Evolved*. University Center for Human Values Series; Princeton: Princeton University Press.

Deacon, Terrence W. 2008. *The Re-Emergence of Emergence*. Oxford and New York: Oxford University Press.

Denis, Claire, Herman Melville, Patrick Grandperret, Jérôme Minet, Jean-Pol Fargeau, Denis Lavant, Michel Subor, and Grégoire Colin. 2002. *Beau Travail*. New York: New Yorker Video.

Dorsky, Nathaniel. 2003. *Devotional Cinema*. Berkeley: Tuumba Press.

Douglas, Mary. 1984. *Purity and Danger: An Analysis of Concepts of Pollution and Taboo*. London and Boston: Ark Paperbacks.

Engber, Daniel. 2016. It Looked Great. It Was Unwatchable. *Slate Magazine*. October 20. Available online: http://www.slate.com/articles/arts/movies/2016/10/billy_lynn_s_long_halftime_walk_looks_fantastic_it_s_also_unwatchable.html (accessed on 20 July 2018).

Feenberg, Andrew, and Yoko Arisaka. 1990. Experiential Ontology: The Origins of the Nishida Philosophy in the Doctrine of Pure Experience. *International Philosophical Quarterly* 30: 173–205. [CrossRef]

Garland, Alex, Andrew Macdonald, Allon Reich, Rob Hardy, Ben Salisbury, Mark Digby, Sammy Sheldon, Mark Day, Domhnall Gleeson, Alicia Vikander, and et al. 2015. *Ex-Machina*. Santa Monica: Lionsgate, A24.

Gordon, Deborah. 1999. *Ants at Work: How an Insect Society Is Organized*. New York: Free Press.

Hanson, David, Andrew Olney, Steve Prilliman, Eric Mathews, Marge Zielke, Derek Hammond, Raul Fernandez, and Harry Stephanou. 2005. Upending the Uncanny Valley. *AAAI '05 Proceedings of the 20th National Conference on Artificial Intelligence* 4: 1728–29.

Heisig, James W. 2001. *Philosophers of Nothingness: An Essay on the Kyoto School*. Honolulu: University of Hawai'i Press.

Herzog, Werner, Erik Nelson, Adrienne Ciuffo, Joe Bini, Peter Zeitlinger, and Ernst Reijseger. 2011. *Cave of Forgotten Dreams*. Washington: MPI Media Group.

Hund, Wulf D., Charles W. Mills, and Silvia Sebastiani. 2015. *Simianization: Apes, Gender, Class, and Race*. Zurich: Lit.

Anderson, Joseph, and Barbara Anderson. 1993. The Myth of Persistence of Vision Revisited. *Journal of Film and Video* 45: 3–12.

Anderson, Joseph, and Barbara Fisher. 1978. The Myth of Persistence of Vision. *Journal of the University Film Association* 30: 3–8.

Jackson, Peter, Andy Serkis, Ian McKellen, Martin Freeman, Richard Armitage, James Nesbitt, Ken Stott, Cate Blanchett, Ian Holm, Christopher Lee, and et al. 2013. *The Hobbit: An Unexpected Journey*. Burbank, California: Warner Home Video.

Jentsch, Ernst. 1997. On the Psychology of the Uncanny (1906). *Angelaki* 2: 7–16. [CrossRef]

Katz, Josh, Jonathan Corum, and Jon Huang. 2018. We Made a Tool So You Can Hear Both Yanny and Laurel. *New York Times*. May 16. Available online: https://www.nytimes.com/interactive/2018/05/16/upshot/audio-clip-yanny-laurel-debate.html (accessed on 20 July 2018).

Kohn, Eduardo. 2013. *How Forests Think: Toward an Anthropology Beyond the Human*. Berkeley: University of California Press.

Kubrick, Stanley, Arthur C. Clarke, Geoffrey Unsworth, Ray Lovejoy, Aram Khachaturian, György Ligeti, Johann Strauss, Richard Strauss, Anthony Masters, Harry Lange, and et al. 2007. *2001: A Space Odyssey*. Burbank: Warner Home Video.

Lamarre, Thomas. 2006. New Media Worlds. In *Animated Worlds*. Edited by Suzanne Buchan. Bloomington: Indiana University Press.

Lee, Ang, Marc Platt, Rhodri Thomas, Stephen Cornwell, Jean-Christophe Castelli, Joe Alwyn, Kristen Stewart, Chris Tucker, Garrett Hedlund, Makenzie Leigh, and et al. 2017. *Billy Lynn's Long Halftime Walk*. Culver City: Sony Pictures Home Entertainment.

Lee, Ang, Brian Bell, Jerry Bruckheimer, Andrés Calderón, David Ellison, Michael Fottrell, Don Murphy, Chad Oman, Mike Stenson, and Mary Elizabeth Winstead. 2019. (anticipated). *Gemini Man*. Los Angeles: Skydance Media.

Levinas, Emmanuel. 1985. *Ethics and Infinity*. Pittsburgh: Duquesne University Press.

Lotto, Beau. 2017. *Deviate: The Science of Seeing Differently*. London: Weidenfeld and Nicholson.

MacDorman, Kevin, and Debaleena Chattopadhyay. 2017. Categorization-Based Stranger Avoidance Does Not Explain the Uncanny Valley Effect. *Cognition* 161: 132–35. [CrossRef] [PubMed]

Michelle, Carolyn, Charles Davis, Craig Hight, and Ann L. Hardy. 2017. The Hobbit Hyperreality Paradox. *Convergence: The International Journal of Research into New Media Technologies* 23: 229–50. [CrossRef]

Midgley, Mary. 1983. *Animals and Why They Matter*. Harmondsworth: Penguin Books.

Minghella, Anthony, Saul Zaentz, Anthony Minghella, Kristin Scott-Thomas, Ralph Fiennes, Juliette Binoche, Willem Dafoe, Naveen Andrews, and Michael Ondaatje. 2004. *The English Patient*. Los Angeles: Miramax Home Entertainment.

Mori, Masahiro. 1981. *The Buddha in the Robot*, 1st English ed. Tokyo: Kosei Pub. Co.

Mori, Masahiro. 2012. c1970. The Uncanny Valley (*Bukimi No Tani Genshō*). Translated by Karl F. MacDorman, and Norri Kageki. *IEEE Robotics and Automation* 19: 98–100. [CrossRef]

Murch, Walter. 2001. *In the Blink of an Eye*. Los Angeles: Silman-James Press.

Murnau, F. W., Henrik Galeen, Enrico Dieckmann, Max Schreck, Greta Schroeder-Matrey, Ruth Yorck, Bram Stoker, Berndt Heller, and Rundfunk Saarländischer. 2013. *Nosferatu: A Symphony of Horror*. New York: Kino Classics.

Nakano, Tamami, Makoto Kato, Yusuke Morito, Seishi Itoi, and Shigeru Kitazawa. 2013. Blink-Related Momentary Activation of the Default Mode Network While Viewing Videos. *Proceedings of the National Academy of Sciences USA* 110: 702–6. [CrossRef] [PubMed]

Nishitani, Keiji. 1982. *Religion and Nothingness*. Nanzan Studies in Religion and Culture. Berkeley: University of California Press.

Norscia, Ivan, Elisabetta Palagi, and Lesley Joy Rogers. 2011. Yawn Contagion and Empathy in Homo Sapiens (Yawn Contagion and Empathy in Humans). *PLoS ONE* 6: e28472. [CrossRef] [PubMed]

Pawlikowski, Pawel, Eric Abraham, Piotr Dzięcioł, Ewa Puszczyńska, Pawel Pawlikowski, Rebecca Lenkiewicz, Łukasz Żal, Ryszard Lenczewski, Jarosław Kamiński, Kristian Andersen, and et al. 2014. *Ida*. Chicago: Music Box Films.

Purse, Lisa. 2007. Digital Heroes in Contemporary Hollywood: Exertion, Identification and the Virtual Action Body. *Film Criticism* 32: 5–25.

Quesnel, Denise, Maria Lantin, Alan Goldman, and Sean Arden. 2013. *High Frame Rate (HFR) White Paper*. Vancouver: S3D Centre.

Rivera, Mayra. 2007. *The Touch of Transcendence: A Postcolonial Theology of God*. Louisville: Westminster John Knox Press.

Sartre, Jean Paul. 1956. *Being and Nothingness: An Essay on Phenomenological Ontology*. New York: Philosophical Library.

Sartre, Jean Paul. 1957. *The Transcendence of the Ego: An Existentialist Theory of Consciousness*. New York: Noonday Press.

Schrader, Paul. 1972. *Transcendental Style in Film: Ozu, Bresson, Dreyer*. Berkeley: University of California Press.

Schrader, Paul, Jerry Bruckheimer, Richard Gere, and Lauren Hutton. 2000. *American Gigolo*. Hollywood: Paramount Pictures.

Schrader, Paul, Francis Ford Coppola, George Lucas, Chieko Schrader, Leonard Schrader, Mata Yamamoto, Tom Luddy, Ken Ogata, Kenji Sawada, Mitsugoro Bando, and et al. 2008. *Mishima: A Life in Four Chapters*. Irvington: Criterion Collection.

Scorsese, Martin, Irwin Winkler, Robert Chartoff, Paul Schrader, Mardik Martin, Joe Pesci, Cathy Moriarty, Joseph Carter, and Peter Savage. 1996. *Raging Bull*. Culver City: MGM/UA Home Video.

Scorsese, Martin, Paul Schrader, Willem Dafoe, Harvey Keitel, Barbara Hershey, Harry Dean Stanton, David Bowie, and Nikos Kazantzakis. 2000. *The Last Temptation of Christ*. Irvington: Criterion Collection.

Scorsese, Martin, Scott Rudin, Paul Schrader, Nicolas Cage, Patricia Arquette, John Goodman, Ving Rhames, and Joe Connelly. 2000. *Bringing out the Dead*. Hollywood: Paramount.

Scorsese, Martin, Paul Schrader, Jodie Foster, Albert Brooks, Harvey Keitel, Leonard Harris, Peter Boyle, and Cybill Shepherd. 2005. *Taxi Driver*. Culver City, California: Columbia TriStar Home Video.

Scott, Anthony Oliver. 2012. The Hobbit: An Unexpected Journey. Bilbo Begins His Ring Cycle. Directed by Peter Jackson. *New York Times*, December 14, C1.

Scott, Ridley, Michael Deeley, Hampton Fancher, David Webb Peoples, Harrison Ford, Rutget Hauer, Sean Young, Edward James Olmos, Daryl Hannah, Jordan Cronenweth, and et al. 1999. *Blade Runner*. Burbank: Warner Home Video.

Silk, Jonathan A., and Vasubandhu. 2016. *Materials towards the Study of Vasubandhus Viṁśikā: Sanskrit and Tibetan Critical Editions of the Verses and Autocommentary, an English Translation and Annotations*. Cambridge: Department of South Asian Studies, Harvard University.

Singer, Peter. 1975. *Animal Liberation: A New Ethics for Our Treatment of Animals*. New York: Random House.

Smirnov, Kristen, and John Pracejus. 2011. Empathy Drivers in the Uncanny Valley. *Advances in Consumer Research* 38: 807–9.

Smith, David Livingstone. 2018. What Makes Clowns, Vampires and Severed Hands Creepy? *Aeon*. June 6. Available online: www.aeon.co/essays/what-makes-clowns-vampires-and-severed-hands-creepy (accessed on 20 July 2018).

Spielberg, Steven, Richard Dreyfuss, François Truffaut, Teri Garr, Julia Phillips, Michael Phillips, and John Williams. 2002. *Close Encounters of the Third Kind*. Culver City: Columbia TriStar Home Entertainment.

Stromberg, Joseph. 2012. Why Do We Blink So Frequently? *Smithsonian Institution*. December 24. Available online: www.smithsonianmag.com/science-nature/why-do-we-blink-so-frequently-172334883/ (accessed on 20 July 2018).

Studlar, Gaylyn. 1983. Trumbull on Technology. *The USC Spectator*, 3.

Teti, Julia. 2018. Director Paul Schrader Talks Transcendental Style in Film. *The Playlist*. May 6. Available online: www.theplaylist.net/paul-schrader-transcendental-style-20180506/ (accessed on 20 July 2018).

Turnock, Julie. 2013. Removing the Pane of Glass: The Hobbit, 3D High Frame Rate Filmmaking, and the Rhetoric of Digital Convergence. *Film Criticism* 37: 30–59.

Turnock, Julie. 2015. *Plastic Reality: Special Effects, Technology, and the Emergence of 1970s Block Buster Aesthetics*. New York: Columbia University Press.

Verchery, Lina. 2014. Ethics of Inscrutability: Ontologies of Emptiness in Buddhist Film. *Contemporary Buddhism* 15: 145–63. [CrossRef]

Wachowski, Lana, Andy Wachowski, Keanu Reeves, Laurence Fishburne, and Carrie-Anne Moss. 2001. *The Matrix*. Village Roadshow Pictures, Silver Pictures, and Warner Bros. Pictures. Edited by Widescreen Version. Burbank: Warner Home Video.

Wenders, Wim, Pina Bausch, Gian-Piero Ringel, Claudie Ossard, Chris Bolzli, Peter Pabst, Rolf Borzik, and Hustvedt Thom. 2013. *Pina: Dance, Dance, Otherwise We Are Lost*. New York: Criterion Collection.

Wood, James. 2008. *How Fiction Works*. New York: Farrar, Straus and Giroux.

Worrall, Simon. 2017. The Amazing Ways Your Brain Determines What You See. *National Geographic*. May 21. Available online: news.nationalgeographic.com/2017/05/deviate-science-seeing-perception-brain-beau-lotto/ (accessed on 20 July 2018).

Žižek, Slavoj. 2006. *The Pervert's Guide to Cinema*. London: P Guide Ltd.

Zomorodi, Manoush. 2017. *Bored and Brilliant: How Spacing out Can Unlock Your Most Productive and Creative Self*. New York: Macmillan.