

Representation, Reality, and Emotions Across Media

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We read fiction because we enjoy the emotional responses it generates. Through fiction, we can delight at a clever and subtle use of language, deeply sympathize with characters, or marvel at a plot twist. Even tragic stories are, in some sense, enjoyable. Feelings motivate us to engage with other dramatic media as well: we go to the theater, watch films, and play videogames in large part to feel emotions. Yet, the wide variety of media and the emotions they cause challenges our ability to understand exactly *how* media generate emotions. In this paper, I argue that current theories are inadequate for most fruitfully understanding our emotional responses to artworks. I propose an alternate theory that suggests we can understand our emotional responses to art by integrating a multi-level theory of mind with an analysis of the key differences between representational media and reality. Based on this theory, I present a model of emotion that can both describe our affective responses to a wide variety of representational media and help us compare different types of media in terms of their ability to generate emotions in different ways.

I. Current Theories of Emotional Response

Imagine that you are holding a lottery ticket, looking intently at it, and listening to the winning numbers announced on TV. Number after number matches, and when the final number, 'fifteen', matches your final number, you have won millions of dollars. You look up at the TV screen, and you suddenly realize that what you heard as 'fifteen' was actually 'fifty'. You have won nothing. Your overwhelmingly

positive feelings are quickly replaced with a strong sense of disappointment. This scenario helps us to understand the common-sense notion that our emotions are based on our beliefs about the world. You were thrilled when you believed that you had won the lottery, but when you came to believe that you had lost, your positive emotions quickly changed to disappointment.

The role of beliefs in emotion gives rise to a central question about fiction. Why do we respond emotionally to fictions when we don't believe that their contents refer to the real world? When you read Tolstoy's *Anna Karenina*, you feel great sympathy for the protagonist, and, if you find the novel moving, you are very sad when she dies. But you don't believe that there is or was a person named Anna Karenina, and you don't believe that *Anna Karenina* is an account of actual events. Given that you don't believe in the narrative, why should you respond emotionally to it? When you stop believing that you won the lottery, your happiness disappears. Why doesn't your sadness disappear when you attend to your lack of belief in the reality of Anna Karenina and her situation?

Two theories that attempt to explain this apparent paradox are the *illusion theory* and the *pretend theory*.¹ Both are based on the premise that emotions are caused by beliefs. The illusion theory holds that when we engage with fiction, we are temporarily under the illusion that what we are seeing or reading about is real. Readers or viewers have emotional responses to *Anna Karenina* because, in some sense, they *do* believe in its reality. Unfortunately, this theory does not seem to accord with our experience of fiction.

Consider someone watching the film *Alien* (1979) and being terrified of the film's alien monster. The illusion theory would hold that the viewer is scared because as she watches the film she, in some sense, believes that the alien is threatening and dangerous in reality. But if she truly believes that the alien is real, even temporarily, we would expect her to run out of the house and call the authorities to report the horrible deaths she just witnessed. She does not. Her lack of action precludes the explanation that she is under an illusion that the film is real and thus undermines the viability of the illusion theory.

The pretend theory holds that the viewer does not believe that the alien is real; she knows that it is fictional. Therefore, she cannot really be scared, because people can only be scared of things that they believe might actually hurt them. More broadly, since it is absurd to think that we actually believe in fictions, the pretend theory claims that our emotional responses to fiction are not really genuine emotions. Rather, they are part of a game we play with fictions. When we read a book or see a film, the theory claims, we engage in a game of pretend, much like children playing cops and robbers. Just as the children might pretend a cardboard box is a car, a film viewer pretends the images and sounds of the film are actually a threatening alien. The viewer's heart races, she thinks of the awful things the alien might do to her, and she screams. But this reaction is a response to her imaginative make-believe, rather than a genuine fear.

The pretend theory is unsatisfying because it conflicts with our intuitions about how we read books or watch films. We do not consciously pretend to feel emotions, and what we feel feels real. The pretend theory attempts to address these problems by positing that the viewer's pretend fear is involuntary and feels just like real fear. Posed in this way, the pretend theory offers a seemingly viable explanation of how we can feel emotions in fictions: what we think of as real emotions are not real, they are pretend, so they can plausibly be generated without belief in the things that inspire them. Yet this theory raises as

many questions as it answers. When children sit in a box and pretend to be driving a car, their pretense is voluntary. Indeed, part of the concept of pretense is that the person pretending is consciously choosing to treat one thing as another. The notion that the film viewer is *involuntarily* pretending seems to stretch the meaning of pretense past its limits. Further, pretending is an activity that seems to invite wide variation. One child may pretend that the cardboard box is a car, while another pretends it is a fort, an oven, or a stage. In contrast, when faced with a horror movie, almost all viewers pretend to be scared of the alien. None pretend to be proud of the alien or in love with it. The pretend theory cannot explain why viewer responses based on games of make-believe would have so little variety.

The illusion theory and the pretend theory are both based on the notion that emotions rely on beliefs, yet they explain our responses to fictions through opposite strategies. The illusion theory holds that since we have emotional responses to fictions, we must believe in them. In contrast, the pretend theory states that since we do not believe in fictions, our emotional responses to them cannot be genuine. Since neither theory appears plausible, we may need to reject the premise on which both are based: that real emotions can only be generated by beliefs. Rejecting this premise is the central feature of philosopher Noël Carroll's theory of emotion and art, which he calls the *thought theory*.² Carroll argues that emotions can be generated just by the thought of things, even if we do not actually believe in them. Carroll gives the example of vividly imagining that we are on the edge of a dangerous precipice. If we actually visualize this scenario, we can be genuinely scared by it even if we believe that we are firmly on safe ground. The thought theory can begin to explain the initial question of how we can be emotionally moved by fictions. On this theory, we can be made sad just by the thought of Anna Karenina dying; we can be scared just by the thought of a monster, without believing that it is actually a threat.

Unfortunately, the thought theory does not

fully explain the scenarios described above that motivated the question of why we respond emotionally to fiction. If the thought theory is true, why are we not just as happy with the thought that we have won the lottery as with actually winning the lottery? Why are we not just as upset with the thought of a friend dying as we are by his actual death? Carroll provides no answer. The thought theory is also unable to answer two key questions about how we respond to media. First, why does the way an artwork is presented affect our response to it? Our response to *Alien* will be very different if we see it on a small portable DVD player than if we see it in a large IMAX theater. Yet both presentations prompt the same thoughts about the horrible deaths of the crew on the *Nostromo*, so according to the thought theory we should expect the same emotional responses rather than varied responses. A second unanswered question is, why do different media excel at generating different emotions? I think the premise of this question is intuitive, but I will motivate it with a few examples. Literature excels at generating rich characters with full mental lives. This is not to say that film cannot portray rich characters or that all literature does this, but literature seems to be best at this task. Our examples of characters who have a full, complex psychology that seem to approach the depth of real people come overwhelmingly from literature. Film excels at presenting exciting action sequences. Of course, literature can also have intense action scenes, and a brilliant painting may be able to evoke a sense of intense action, but films are advantaged in this task. It takes an exceptional book or painting to arouse the reader or viewer into an excited state through a depiction of action. Yet a second-rate Hollywood action film can do it easily. Or consider the emotion of regret. Can a film make you feel regret? Yes, in rare cases. A film might stir regret by reminding you of the romantic partner you let get away. But videogames excel in generating regret; it is common for gameplay to be punctuated with regret as the player realizes that different choices could have resulted in victory rather than defeat. The thought theory does not help us

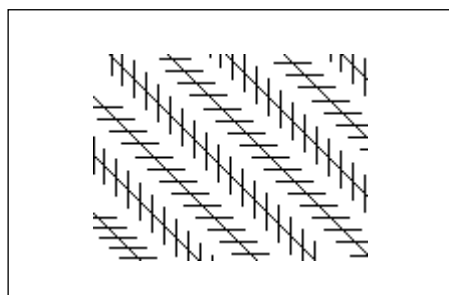
understand why different media have different strengths in generating emotions. The concept of the alien in the film *Alien* and the book based on the film is the same, but our emotional responses to the two media are different. The failure of the thought theory to explain these features of our engagement with artworks suggests that we need a different, more nuanced theory.³

II. A Multi-Level Approach

One problematic commonality of the illusion and pretend theories is that they consider belief the mental activity central to emotion. The thought theory, while not relying on belief, considers judgment central to emotion – *Alien* is horrifying because we judge the monster, even in thought, to be dangerous and disgusting. All three theories, then, assume that our minds form *unified evaluations* (whether beliefs or judgments) about the situations portrayed in artworks and that these evaluations underlie our emotional responses.

The contrary conception, that the mind has potentially competing aspects, goes back at least to Plato, who offered a multi-level model of the mind in *The Republic*. Plato notes that people can be thirsty yet not drink, and some can be happy in their suffering. Plato also describes Leontius, who was repulsed by rotting corpses and yet at the same time wanted to look at them.⁴

Optical illusions provide another example of this phenomenon:



In this image, the diagonal lines are parallel, although they do not appear to be so. We can convince ourselves that the lines are parallel by taking a ruler and measuring the distance

between their ends. But even if we convince ourselves that they are parallel and believe it very strongly, it is impossible for us to see them as such. In other words, although our conscious judgments tell us that the lines are parallel, our visual systems perceive them otherwise. This example shows how two mental systems can suggest contrary conclusions about the same object.

The notion that the mind has multiple aspects can be usefully applied to artworks. We respond to representational media not with one overall judgment, but through multi-level appraisals, such that different mental systems evaluate them in different ways.⁵ Film theorist Torben Grodal has applied this idea to film, discussing two levels of appraisal: *global* and *local*.⁶ Global appraisals are high-level summative judgments. Crucially, the reality-status of things we perceive (i.e., whether they are real or representations) is determined by global appraisals. Global appraisals are determined by numerous local appraisals, which are limited evaluations, made by mental subsystems, that are not overall judgments about a situation. A car's color, for example, is determined by a visual system dedicated to color evaluation, but the color is only part of the phenomenological experience of seeing the car.

Since reality-status is a global appraisal, we cannot speak of local subsystems appraising things as real or not. For example, consider the local process of visually detecting motion. Whether we perceive something as moving can act as an input to a global evaluation of its reality-status, but the motion detection itself cannot evaluate reality-status. The motion, at a local level, is not seen as real or unreal – it is just perceived as motion or stillness.

When we look at a photograph of a tiger, we note that the picture is two-dimensional and static. These features of the picture are identified by local appraisals, which are done automatically and non-consciously. These local appraisals feed into a global appraisal, which concludes that the photograph is not an actual tiger, but just a representation of one, and that we are not in danger. Our global appraisal of a thing or

situation can both affect and be affected by local appraisals, but local appraisals are not necessarily unified. Different mental systems can appraise situations differently.

A mental model based on multi-level appraisals allows us to satisfactorily explain why emotional responses to fiction are different than emotional responses to real life. The viewer watching *Alien* screams when the alien appears, but does not run away. The illusion, pretend, and thought theories offer accounts that do not strongly accord with our subjective experiences. A multi-level approach can explain the viewer's apparently contradictory behavior. Some of the viewer's mental systems respond to the alien as if it is a real danger, raising her heart rate and increasing her adrenaline. Other mental systems, such as the ones responsible for running and hiding, recognize that the alien is fictional and thus not a real danger that she must avoid.

This theory also helps us understand why a viewer would respond differently to the same film as seen on a portable DVD player and a large IMAX screen. The IMAX theater presents images that parts of the viewer's mind naively interpret as more threatening. The images are larger, and are thus interpreted as either bigger or closer and thus more dangerous. Also, in the IMAX theater, the film image dominates the viewer's visual field. On the portable player, the small image competes with surrounding off-screen information that constantly reminds the viewer that the alien she is seeing is not real. When watching on a small screen, she sees more cues of non-reality, and the fictional status of the images is more prominent in her mind.

Building on the distinction between global and local appraisals, Grodal develops a complex account of film genres based on the idea of narrative and stylistic 'flow', which centers on issues of character identification. Here, I break with Grodal's theory of emotional response for two reasons. First, I am interested in how emotions are evoked differently across media rather than just within film, and to do that requires different theoretical tools than those Grodal employs. Second, Grodal argues that there is 'no simple correlation between the

strength of a given experience and the reality-status of the object of the experience'.⁷ While I agree with this statement as given, I am interested in pursuing ways that we can understand the complex relationship between reality-status and viewer response in a comparative media framework.

How can a multi-level account of the mind help us understand emotional responses to artworks? We might begin by thinking about prototype emotion situations. It is easy to think of situations that generate prototypical emotional responses. When someone pushes you, you get angry. You see your romantic partner flirt with someone else and you get jealous. Someone you love dies; you feel grief. Although these situations differ, all prototype emotion situations share features by virtue of being real-world situations. These features are numerous, but a partial list would include:

- the progression of time is linear, non-reversible, and continuous;
- your sensory input includes high-resolution visual, auditory, olfactory, and tactile information;
- the people around you are real, not fictional;
- you and the objects you perceive can interact with each other;
- the objects you see have mass and weight;
- moving your body through the space of the situation gives you additional sensory information.

Of course, specific emotions would have additional prototype features. For example, the prototypical situation leading to anger would include a judgment that someone has wronged you or someone you care about. A prototypical feature of surprise would be a sudden and startling change in information.

Many situations do not feature all of these characteristics, and when certain features are removed, non-prototypical emotions may result. A sudden confrontation with a growling tiger in the jungle would feature the above characteristics, resulting in the prototype emotion of fear. Prototypical fear has many aspects: an increase in adrenaline, sweat, and

heart rate; a widening of the eyes and sudden alertness to the environment; an action tendency towards fight or flight; a phenomenological feeling; tensing of the muscles; and several others. A sudden confrontation with a tiger in a zoo, safely behind bars, does not have all of the above characteristics of the prototype situation. Although you and the tiger can perceive each other, you cannot physically interact. You understand that the tiger cannot break through the bars and harm you. If the tiger growled at you, you would presumably not run, suggesting that you do not have the action tendency associated with prototypical fear. Yet you might have increased heart rate, a flush of adrenaline, or a fearful expression, despite your belief that the tiger cannot harm you. What you feel is not prototypical fear but has many features of fear. In a museum, you might turn the corner and startle at the sight of a large saber-tooth tiger mounted on a display. You might get a short-lived flush of adrenaline, but your feeling is only a shade of the fear generated when confronting an actual threatening tiger.

When we combine the concept of a multi-level mind with the analysis of the prototype emotion situation, we can explain in more detail why we emotionally respond to fictions even though we do not believe them to be real. Since some features of the prototype emotion situation *are* recreated in an artwork, the mental subsystems that are tuned to respond to those features will respond in the same way to that artwork as they would to the prototype situation (i.e., to reality), because those local systems are likely not affected by global appraisals of reality-status. When a substantial number of mental subsystems are activated in this way, they can create affective responses that share many features of prototypical emotional responses. But, since artworks do not provide all of the features of the prototype situation, responses to them are not prototypical emotional responses; They are partial emotional responses, with only some of the features of a prototypical case.

I propose that as an artwork presents fewer or less salient aspects of the prototype situation, the potential for intense emotional response

decreases.⁸ Think about the jungle tiger or zoo tiger compared with a growling tiger in a film. Watching a tiger appear in a film, you might feel a flash of something that was like fear, but the feeling would likely be less intense than in the jungle. The film tiger, compared with the zoo tiger, is missing elements of the prototype emotion situation such as three-dimensionality, odor, and the ability to change your view of the tiger by moving your own body position; the absence of these elements reduces the potential for emotion. A still image of a threatening tiger probably would generate only a mild emotional response. The still image is missing an important element of a prototype emotion situation – motion. And merely reading the word ‘tiger’, in isolation, would probably not create an emotional response at all.⁹

We might call this approach to emotional response a *hybrid illusion theory*. Classic illusionism problematically holds that we emotionally respond to artworks because we are under the illusion that they are real. The hybrid illusion theory tempers this general notion with a more specific account of the multi-level mind. It states that only certain parts of our minds react to artworks as if they are real. We know globally that artworks are representations, but many of the mental subsystems that contribute to that overall evaluation do not distinguish between reality and representation. When a representation stimulates the mind in ways that are similar to how reality stimulates the mind, those subsystems react as if they are engaged with reality. When more features of the prototype emotion situation are recreated by the artwork and more subsystems are activated, the potential for emotional response increases.

The hybrid illusion theory may initially appear suspect on several fronts. To begin, a theory of emotional response that relies so heavily on general mental models may seem to imply the clearly false position that all viewers will respond similarly to a given work of art. In fact, the theory has no determinist implications. While the multi-level model of the mind describes large-scale structures that can help us understand emotional response, those structures are crucially

developed within historically and culturally specific contexts. In the next section, I discuss some specific ways that culture can generate varied emotional responses within a multi-level model of the mind.¹⁰

A related concern about hybrid illusion theory is that less realistic representations are often more evocative than more realistic ones. Classic stories of good versus evil are unrealistically simplified, but can be very exciting. Special effects can create a monster more frightening than anything existing in reality. We might rescue the theory from this apparent problem with an important qualifier: ‘all things being equal’. That is, *for the same event*, a stronger reality appraisal will tend to result in more intense emotions. So, the question is not whether a film like *Star Wars* (1977) is realistic; it is whether watching the film of *Star Wars* is more emotionally evocative than reading the screenplay, which lacks the visual simulation of reality. Similarly, we should not compare imaginary monsters to actual creatures. Rather, we should ask whether a real-life tiger would induce more fear than a similar filmed image of a tiger.

The hybrid illusion theory may also seem to imply a counterintuitive claim. Books and films often generate emotions that seem more intense than our everyday experiences. Yet the hybrid illusion theory suggests that realism correlates with emotional intensity, which seems to contradict this experience. The explanation requires a recognition that the contents of literature, film, and other media have been deliberately constructed to give you powerful emotional experiences, and they have to be so highly constructed precisely because representational media will tend to generate less intense emotions than reality *for a given event or experience*. It is because the filmed image of a shark is less scary than an actual shark that *Jaws* (1975) must use narrative structure, music, images of blood, screams, suspense, and special effects to generate intense fear. Or consider Shakespeare’s *Romeo and Juliet*. Although it is a very sad play, imagine actually witnessing two young lovers end their lives due to a miscommunication. The play is moving, but its

real-life counterpart would impact us on a far greater scale. When representational media are emotionally powerful, it is because they have overcome their inherent disadvantages in generating intense emotions. Artworks that solicit emotional responses are never just like real life because if they were, they would evoke only weak emotions.

The hybrid illusion theory helps us answer a question that the other theories could not: why films, literature, and videogames excel at producing different types of emotions. Each medium provides certain features of prototypical emotion-eliciting situations and fails to provide others. Film provides high visual resolution but no interactivity. Literature can expertly convey abstract concepts but cannot present visual information rapidly. Videogames provide interactivity but usually do not provide the depth of storytelling or characterization regularly achieved by other media. Consequently, each medium will excel at generating the emotions that most strongly rely on the features it can simulate or provide.

III. A Comparative Media Framework

The hybrid illusion theory provides a theoretical foundation for understanding how representational media can generate emotions, but there is more to be said about how specific books, films, and other art forms are structured to generate the emotions they do, and how media differ from each other in their capabilities and effectiveness. An important first step is generating a more specific framework for analyzing emotional response based on the various ways that readers, viewers, and players interact with representational media. In Figure 1, I propose a framework composed of three types of emotions and two kinds of audience roles.

Although this chart implies six exclusive categories, the categories strongly influence each other. In the interest of clarity, I will first describe the types of emotions and audience roles independently. When I turn to some more complicated examples, it will become clear how the categories overlap. Ultimately, I argue that in some artworks, representations can operate in all of these categories simultaneously.

Three Types of Emotions

Media theorist Ed Tan suggests that emotional responses to art can be categorized into two types: *represented-world emotions* and *artifact emotions*.¹¹ Represented-world emotions are simply those that are generated by the world represented in the artwork, including the characters, situations, and narrative events. This category includes most ordinary responses to popular films and books, such as happiness that Rocky Balboa wins the heavyweight title in *Rocky II* (1979), frustration with Rorschach's unyielding Manichaeian morality in the graphic novel *Watchmen* (DC Comics, 1987), or concern for the minimum-wage workers profiled in *Nickel and Dime* (Enrenreich, 2001).

Artifact emotions are those that are generated based on our response to a work as an artifact, or crafted art object. They are emotions of aesthetic evaluation. Artifact emotions include delight at the amazing special effects in *Back to the Future* (1985), admiration for the detailed brushwork of a pointillist painting, or disappointment that a murder mystery pinned the crime on a minor character. Although most audiences experience artifact emotions, they are particularly prominent for academic critics, popular critics, and aficionados of a genre, all of whom make evaluation of artworks *qua* artworks a regular part of their reading and viewing practices.

When we think about interactive media, such

<i>Audience Roles</i>	<i>Types of Emotions</i>		
	World	Artifact	Game
Observer-participant			
Actor-participant			

• Figure 1

as videogames, it becomes clear that these two categories do not cover the full spectrum of emotions that can be created by representational media. We must add a third category: *game emotions*.¹² Game emotions are emotions of competition, the emotions generated due to winning, losing, accomplishment, and frustration. Game emotions also can be social emotions, such as regret at failing to protect a partner, loyalty to a team member, or *schadenfreude* (pleasure at the misfortunes of others) when a competitor accidentally blows himself up with a grenade during a competitive game of *Halo* (Bungie, 2001).

These three kinds of emotion are not exclusive categories. Rather, they are different aspects of the complex emotional responses we have to media, which can draw on one category, two, or all three. Further, there is no correlation between the number of areas activated and the intensity of response. We might have a very intense, pure artifact emotion about the design of an abstract painting, or we might have an equally intense, complex response that draws on all three categories when playing a videogame set in a robust simulated world.

Each of the three types of emotional response – world, artifact, and game – has a context that is crucial to determining the emotions felt by the viewer. The context of game emotions are the game rules, which define the game's parameters, legal moves, and outcomes.¹³ When you play *Pac-Man* (Midway, 1980), one of the rules of the game is that when the Pac-Man eats the last dot, the board is completed. The characters all freeze in place and the board blinks, which signals to the player that the next board is about to appear and play will begin again. The player's game emotions are generated in the context of these rules. If the player understands these rules, when the Pac-Man eats the last dot on a board, she might feel a sense of accomplishment. She has completed her goal. If she was having trouble with the board and the deadly ghosts were close to killing Pac-Man, when she completes the board she may feel tremendously relieved.

Artifact emotions are emotions of evaluation. When we admire Hitchcock's editing, marvel at

Hemingway's brevity, or criticize a videogame for being too short, we are evaluating these objects as aesthetic accomplishments. As critical evaluations, artifact emotions occur against two types of contexts. The first is the context of conventions. Artworks are judged, consciously or not, against conventions of genre, style, medium, and narrative. If I go to see a film that bills itself as an objective documentary, yet I find it very slanted and thus determine that it is not accomplishing what it sets out to do, I may be disappointed in the film. This is not to say that artworks are judged positively to the degree that they fit a convention; they might be judged positively for flouting or subverting conventions. We might both agree that Oskar Fischinger's *Motion Painting No. 1* (1947) is very unconventional. The artifact emotions that the film generates, however, depend on the individual viewer. It is worth noting that critics' comments and analyses are part of the context for artifact emotions because they are mechanisms through which conventions are established and reinforced.

A second context for artifact emotions is technology – specifically, the technology of the medium in which an artwork is realized. Here, I mean technology in a broad sense, ranging from a simple technology like a piece of charcoal used for drawing to a complex technology such as the processing system of a modern videogame console. Technology sets our expectations for artworks by setting parameters for what we can expect an artwork to be. We understand that a film has the technological capability of editing, so we take both the presence and absence of editing as an artistic choice that contributes to our evaluation of a film. Interactive control of characters, however, is not a capability of ordinary films. Thus, the presence or absence of interactivity does not normally contribute to our artifact emotions about a film. This might change if we start to think in comparative media terms. If we compare the film *The Matrix* (1999) to the videogame *Enter the Matrix* (Shiny, 2003), for example, we might become aware of a lack of interactivity in the film compared to the game, and when re-watching the film we might feel

frustrated at the lack of interactivity. Nevertheless, the technology that allows interactivity is still part of the context of artifact emotion. By thinking of the film in comparison with the videogame, we have brought interactivity into the context of the film.

The context for the third type of emotions, world emotions, is a set of norms and rules we might call *world principles*. These wide-ranging principles can be as basic as laws of science (e.g., gravity) and as complex as cultural norms (e.g., gender norms). Our emotional responses crucially rely on our understanding of these principles. Consider a fantasy film, such as a vampire movie. One of the typical world principles of these films is that vampires burst into flame when forced into sunlight. A viewer who wants the vampire to die, and who understands this principle, will be relieved when the vampire is suddenly thrust into sunlight. If the viewer does not know that world principle, then he will be very surprised when the vampire



• Watching *The Matrix* (1999).



• Interacting with the videogame *Enter the Matrix* (Shiny, 2003).

suddenly bursts into flames for no apparent reason.

Many world principles are based on socio-cultural constructions. For example, the film *Twelve Angry Men* (1957) concerns a jury deliberation, which highlights culturally-defined issues such as consensus building, class conflict, and presumption of innocence. To the degree that these principles of the represented world appear to make claims about the actual world, the film might be said to be ideological. But cultural influence is not limited to world principles. Culture also affects the contexts of artifact and game emotions, because it is within cultures that artistic conventions, technologies, and game rules are created.

Two Kinds of Participation

There are two kinds of non-exclusive roles an audience member can play when engaging with a work of art, and the roles differ in the types of interactivity they afford. In the first role, observer-participant, the viewer or reader responds to the artwork but does not change the material form of the work. Engagement with traditional artworks is overwhelmingly observer-participant. When we watch films, read books, look at paintings, or go to the theater, we observe aspects of the artwork and respond to them. I call this role *observer-participant* in recognition that the person engaged with an artwork, in addition to merely observing its form, participates with it in very significant ways through her or his mental activities, which range in complexity. The most basic forms of participation with an artwork are perception and recognition of shapes, sounds, and language, and most viewers accomplish these tasks non-consciously and automatically.

At a more complex level, engagement may involve making inferences, following a story, and evaluating characters.¹⁴ These activities are often a mix of conscious and non-conscious mental activities. Here, we would expect more variation between audience members based on individual differences, including differences in historical context. For example, Western audiences watching a Japanese *anime* may see a character

killed by crucifixion and associate the character with Jesus Christ. The viewer might non-consciously attribute traits normally associated with Jesus to the character or might consciously hypothesize that the character will rise from the grave as a symbol of virtue and sacrifice. What the Western viewer may not know, however, is that after Christianity was banned from Japan in 1601, crucifixion remained as the Shogun's favorite form of capital punishment because of its brutality. Thus, crucifixion is associated in the mind of a typical Japanese viewer with feudal brutality, not holy sacrifice.¹⁵ In this way, we can see how historical context can affect individual response.

The mental activities that are most often conscious, deliberate, and reliant on higher-order cognition are artifact emotions such as appreciation of form and sophisticated thematic interpretation. As readers and viewers, we may evaluate how Salman Rushdie handles themes of colonialism, how Feuillade stages his actors, or how Eliot's poetry has a carefully controlled meter and rhyme. These evaluations may lead to different emotions, such as delight, disappointment, or confusion. This type of sophisticated response shows that this role involves not a mere observation, but *observer-participation*.

Observer-participation includes a broad range of activities, but none of them involve actually changing the material form of the artwork. Different readers may interpret Rushdie as saying different things about colonialism, but his words remain the same on the page. One reader may bring a sophisticated understanding of poetic meter to Eliot's poetry, while another may have no understanding of poetic meter, but both readers of a given poem will see the same words in the same order. It is because of this limitation that our engagement with traditional media is overwhelmingly observational, in my sense. When we engage with traditional media, we respond to a given artwork but we do not change its material instantiation.¹⁶

It is this aspect of the observer-participant that

distinguishes this role from actor-participant. Here, I mean *actor* in the general sense of activity or action. The actor-participant, in contrast to the observer-participant, *does* change the material form of an artwork, and this is an intended manner of engagement with the artwork. Since traditional representational media do not generally afford actor-participation, it may not be clear at first how a viewer could participate in an artwork in this way. Some familiar examples may help. Improvisational theater often relies on audience suggestions to determine the direction of skits or stories. The audience members who shout out these suggestions participate in the theater in a manner that clearly changes the outcome. Similar examples exist in the plays *Shear Madness* and *The Mystery of Edwin Drood*, in which audience members vote on which ending they would like to see enacted. For film, we might look to the interactive DVD *Tender Loving Care* (1999). The viewer watches this DVD with remote control in hand. At the end of each chapter, the characters ask the viewer questions, and the answers affect which scenes are shown.¹⁷

Although these examples show that traditional artworks can in rare cases solicit actor-participation, such interaction is the norm for videogames. As a player plays the videogame *Halo*, she strongly affects what appears onscreen through her gameplay. When she presses a button, the character she controls throws a grenade. It is in fact impossible to play a videogame without being an actor-participant because any moves the player makes in the game must be represented, and thus the player will inevitably, through gameplay, change the form of the game as it is displayed onscreen.

Like the three types of emotions, the two types of participation are not exclusive. To the contrary, an actor-participant must simultaneously be an observer-participant, because a player cannot make a move without having at least minimally observed the media context within which the move takes place.

V. Inputs to Emotion

One of the main benefits of this framework is its ability to help us to talk in more detail about specific features of artworks that act as inputs to emotions. In this article, due to space limitations, I offer only general categories of inputs, but it will become clear how the model might be used for a detailed analysis of specific works. In Figure 2, I propose several inputs to emotion which I will now describe.

Role: Observer-participant | Emotion: World | Inputs: Narrative Events/Environments

For the observer-participant, the inputs to world emotions are the situations and events of the represented world. The breaking of Piggy's glasses in Golding's *Lord of the Flies* is a narrative event that generates an emotional response. In addition to narrative events, mere environments or situations can generate world emotions. For example, if you watch the IMAX film *To Fly* (1976), which shows rock formations filmed from an airplane, your stomach might jump when you see a plateau suddenly seem to drop hundreds of feet away. Your vertigo is a world emotion because it is a response to a feature of the represented world – in this case, a represented fall.

Role: Observer-participant | Emotion: Artifact | Inputs: Style/Plot/Design

Inputs to artifact emotions are mostly formal features of the artwork, such as style and narrative construction. In film studies, the term *plot* is used to refer to the structured presentation of images and sounds used by the viewer to infer the narrative events.¹⁸ Appreciating the cleverness of a plot twist in *The*

Sixth Sense (1999) and feeling annoyed at the excessively shaky camerawork in *The Bourne Supremacy* (2004) are examples of artifact emotions. Artifact emotions can also be based on videogame design. The laserdisc-based game *Dragon's Lair* (Cinematronics, 1983) was hailed for its brilliant visuals, but the interaction was very limited. The unnatural control scheme frustrated players and critics argued that the game design was unsatisfying.

Role: Observer-participant | Emotion: Game | Inputs: Game Events

The observer-participant may emotionally respond to what happens during a game, in a manner similar to a sports fan. For an example from representational media, consider a girl who watches her friend play the neighborhood bully in the videogame *Mortal Kombat* (Midway, 1992). When the friend wins, the girl is joyous. The game event, her friend's victory, is the input to her game emotion.

I will now discuss the bottom row in reverse order.

Role: Actor-participant | Emotion: Game | Inputs: Gameplay

As an actor-participant, a game player helps create the material form of an artwork that generates her emotional response. Gameplay is fairly straightforward in this regard. When a player of the videogame *Tony Hawk Pro Skater 4* (Neversoft, 2002) performs a complex series of skateboard tricks, leading to a high score, the player may feel the pride of accomplishing a difficult task. The input to this emotion is the player's own gameplay actions – her good gameplay is the reason that she feels pride. Again, *actor-*

Audience Roles	Types of Emotions		
	World	Artifact	Game
Observer-participant	Narrative events Environments	Style/Plot/Design	Game events
Actor-participant	Role-play	Author/Artist	Gameplay

• Figure 2

participation requires *observer-participation*, because without observing the videogame environment, the player could never succeed at performing the tricks and scoring the points.

Role: Actor-participant | Emotion: Artifact | Inputs: Author/Artist

How does a videogame create author or artist inputs that generate artifact emotions for the actor-participant? Think about the *Tony Hawk* player. When she does the tricks that earn a high score, she feels the gameplay emotion of pride, but she may also admire her own ability to put together a series of tricks that are aesthetically pleasing in sequence. That is, she might admire not the way the game's graphics look (which would be an observer emotion), but the way *the sequence of moves that she authored* looks. To take another example, *Tony Hawk Pro Skater 4* players can design their own skateboards and equip their characters with various shirts, shoes, helmets, and haircuts. The player may take pleasure in designing a character that looks just like a real skater that they know, or be surprised that the combination they selected looks so awkward. These emotions of pleasure and surprise are responses to design choices of the player herself. As such, these activities are actor-participant inputs to aesthetic emotions.

When someone writes a critical analysis of a film, is that artifact actor-participation? No, because writing criticism is not part of the authorized, simultaneous engagement with a film intended by the filmmaker – it is something that occurs after seeing the film, as a separate activity. Similarly, writing a novel is not actor-participation, because that activity is the creation of an original, independent artwork rather than an act of creation within the authorized constraints set forth by an artwork. In contrast, when playing *Tony Hawk*, designing a skateboard and outfit *is* part of the engagement intended by the authors of the videogame.

Role: Actor-participant | Emotion: World | Inputs: Role-play

The final actor-participant category is world emotions. The actor input to world emotions is

role-play, in much the same manner that children might pretend to be cops and robbers. The children represent cops and robbers through their actions. They have emotional responses not just to the actions of the other children, which they observe as narrative events, but also to the actions in which they themselves engage. If a child, pretending to be a cop, cannot remember what she is supposed to say when she 'arrests' her friend, she may be angry at herself for being bad at pretending to be a cop. She is angry because she has failed to properly represent the world in her actions as a character.

Role-play by viewers and readers is very rare in traditional media but common in videogames. In the videogame *Lord of the Rings: Return of the King* (Electronic Arts, 2003), a player might control the character Aragorn. Part of her emotional response to the game may be the degree to which her actions faithfully or poorly match representations of that character in other media. Does her version of Aragorn fight in a similar style to the character in the original books or in the recent films? This type of emotion is even more significant in massively multiplayer online role-playing games (MMORGs) such as *World of Warcraft* (Blizzard, 2004). In MMORGs, players and their characters are part of a community of other player-characters. Players design their characters, name them, determine what they look like, and play them as certain personality types. Much of the emotional response to the game is determined by how players play their characters. Is their character a good wizard? An evil healer? An effective thief? An unconventional blacksmith? Their choices within the parameters set by the game are an input to their world emotions. Just as people's actions in the real world can contribute to their emotions, player actions in a represented world can contribute to player emotions.

VI. Conclusion

This framework lays out six types of inputs to emotion, based on two types of audience engagement with an artwork (observer-participation and actor-participation) and three

broad categories of emotion (world, artifact, and game). These input types are not exclusive categories. Rather, they are different aspects of the representations that compose artworks, and they necessarily relate to each other. For example, the inputs to artifact emotions (style/plot/design) are the means through which viewers receive the narrative information that act as inputs to world emotions. Analyzing how the inputs operate and interact can help us better understand the power of specific media to affect us. Consider the opening scene of the film *The Matrix* in which Trinity defeats numerous policemen at hand-to-hand combat by moving much faster than them, bouncing off the walls, and using martial arts. This scene typically generates artifact emotions, because the way the film represents Trinity's motion (as much faster than the other characters') is remarkable. The style of the scene evokes wonder and surprise that such images could be filmed. The scene also creates *world* emotions of surprise, because the viewer, in addition to wondering how the scene was filmed, wonders how the character portrayed can do what she does in the world of the film. In this case, the world and artifact emotions complement each other and perhaps increase the intensity of the viewer's wonder and surprise. What this example from *The Matrix* also demonstrates is that every representation in a traditional artwork – film, novel, poem, and painting – has the potential for both world emotions and artifact emotions. A single representation, such as an image of Trinity running up a wall, can generate two layers of emotions because the viewer can respond to different aspects of it. Further, although space precludes a detailed example, in most videogames, every representation has the potential for world, artifact, and game emotions, in both observer-participant and actor-participant roles. This observation may help us understand how some players can be so fulfilled by the play experience that they spend hundreds of hours playing a single game.

As I conclude, I can only gesture at the usefulness of this model for understanding why different media tend to generate different

emotions. The hybrid illusion theory suggests that various media have diverse strengths in generating emotions because those media tend to represent different features of the real world. The comparative media framework I propose attempts to significantly elaborate on how these differences work. Traditional artworks, for example, operate almost exclusively in the domain of world and artifact observer emotions, which gives them certain inputs and contexts for emotion. The resources they draw on generate certain emotions better than others. Since some emotions, such as suspense, can be lessened by interactivity, traditional non-interactive media will have an advantage in generating those emotions.¹⁹ Interactive media, while not necessarily generating more powerful emotions, tend to draw on a much wider variety of input types, giving them the potential to effectively generate emotions such as regret and loyalty that are not typically caused by traditional media.²⁰

Notes

- 1 The illusion theory is often associated with the phrase, 'willing suspension of disbelief', introduced by the poet Samuel Taylor Coleridge, 'Biographia Literaria' in Donald Stauffer (ed.), *Selected Poetry and Prose of Coleridge* (New York: The Modern Library, Random House, 1951), p. 264. The pretend theory has been pioneered by philosopher Kendall Walton in *Mimesis as Make-Believe* (Cambridge, MA, Harvard University Press, 1990). My discussion here follows Noël Carroll, *The Philosophy of Horror* (New York: Routledge, 1990), pp. 60–79.
- 2 Carroll, *The Philosophy of Horror*, pp. 79–88.
- 3 I take it as a given that videogames are representational media and, at least potentially, works of art. For a defense of this position, see Aaron Smuts, 'Are Video Games Art?', *Contemporary Aesthetics*, 3:1 (2005).
- 4 Edith Hamilton and Huntington Cairns (eds), *The Collected Dialogues of Plato, Including the Letters*, Bollingen Series, 71 (New York: Princeton University Press, 1961), 439b-e.
- 5 There are numerous competing accounts of how the mind operates at multiple levels, based on concepts such as modularity, parallel processing, and connectionism. My discussion is consistent with all of these specific accounts, as all of them acknowledge that mental processing is multi-level and can generate competing local appraisals.

- 6 Torben Grodal, *Moving Pictures: A New Theory of Film Genres, Feelings, and Cognition* (Oxford: Clarendon Press, 1997), p. 33.
- 7 *Ibid.*, 32.
- 8 Although I sometimes speak generally of more or fewer features, not all features are of equal importance, and we cannot compare features of situations in a numerical sense. Certain features will be more or less salient, depending on the situation, and a medium's capability for recreating salient features of a situation will strongly affect its impact.
- 9 The influential emotion theorist Nico Frijda has proposed a Law of Apparent Reality, which states that emotional intensity increases as events are increasingly appraised as real. Although he proposes this law generally, rather than in the specific context of artworks, my discussion owes an obvious debt to his concept. Nico Frijda, 'The Laws of Emotion', *American Psychologist*, 43:5 (1988): 352.
- 10 The interaction between biology and culture is usefully discussed in Matt Ridley, *Nature Via Nurture: Genes, Experience, and What Makes Us Human*, 1st edn (New York: HarperCollins, 2003) and Peter J. Richerson and Robert Boyd, *Not by Genes Alone: How Culture Transformed Human Evolution* (Chicago: University of Chicago Press, 2005). To see how the interaction of biology and culture can be applied to literature, see Brian Boyd, 'Literature and Evolution: A Bio-Cultural Approach', *Philosophy and Literature*, 29:1 (2005).
- 11 Ed S. Tan refers to these as R- and A-emotions, respectively. 'Emotion, Art, and the Humanities', in Michael Lewis and Jeannette M. Haviland-Jones (eds), *Handbook of Emotions*, 2nd edn (New York: The Guilford Press, 2000). See also Ed S. Tan, *Emotion and the Structure of Narrative Film: Film as an Emotion Machine* (Mahwah, NJ: Lawrence Erlbaum Associates, 1996), p. 36.
- 12 This has also been recognized by Bernard Perron, who argues along similar lines. See his useful discussion in 'A Cognitive Psychological Approach to Gameplay Emotions', paper presented at DIGRA, Simon Fraser University, Burnaby, BC, Canada, June 2005. Available online at: <http://www.gamesconference.org/digra2005/viewabstract.php?id=271>
- 13 For a discussion of game rules, see Katie Salen and Eric Zimmerman, *Rules of Play: Game Design Fundamentals* (Cambridge, MA: MIT Press, 2004).
- 14 For a discussion of how this occurs when watching a film, see David Bordwell, *Narration in the Fiction Film* (Madison: University of Wisconsin Press, 1985). The role of character evaluations in fiction engagement is discussed by Murray Smith, *Engaging Characters: Fiction, Emotion, and the Cinema* (Oxford: Clarendon Press, 1995).
- 15 Antonia Levi, *Samurai from Outer Space* (Chicago: Open Court, 1996), p. 73.
- 16 Of course, one could change the form of an artwork by doing something like re-editing a film, but that is neither an ordinary nor an intended form of audience engagement.
- 17 Bernard Perron, 'From Gamers to Players and Gameplayers: The Example of Interactive Movies', in Mark J. P. Wolf and Bernard Perron (eds), *The Video Game Theory Reader* (New York: Routledge, 2003).
- 18 Plot is described, using the equivalent term *syuzhet*, in Bordwell, *Narration in the Fiction Film*, 49.
- 19 See Jonathan Frome and Aaron Smuts, 'Helpless Spectators: Generating Suspense in Videogames and Film', *TEXT Technology*: 13:1 (2004) 13–34.
- 20 For a more detailed account, see Jonathan Frome, 'Why Films Make Us Cry but Videogames Don't: Emotions in Traditional and Interactive Media' (PhD diss., University of Wisconsin–Madison, forthcoming).