Interactive Works and Gameplay Emotions

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Abstract
Video games differ from films, books, and other mainstream media both in their interactive capabilities and in their affordances for gameplay. Interactivity and gameplay are closely related, as interactivity is necessary for gameplay. Unfortunately, this close relationship has led many video game scholars to conflate these two concepts when discussing player experience. In this article, I argue that, when discussing emotional responses to video games, gameplay and interactivity should be understood as distinct concepts: Gameplay involves both interactive and noninteractive elements, and interactive works do not always involve gameplay. I propose that there are significant drawbacks to overlooking this distinction and that highlighting it is important for understanding player experience, player emotion, and the ways video games differ from other entertainment media.

What makes video games different from traditional media such as film or literature? Some media scholars and industry professionals say the essential difference is interactivity. For example, in her book on video game emotions, Isbister (2016) states, "At their heart, [video]games differ from other media in one fundamental way: they offer players the chance to influence outcomes through their own efforts. With rare

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exception, this is not true of film, novels, or television" (p. 2). Similarly, Cole (2017) states, "The critical difference between past media and the digital media of computer/video games is the necessary action of the player, interactivity . . . " (p. 35). This view is echoed by Johnson (2013), lead designer of *Civilization IV* (Firaxis Games, 2005), who writes, "Nothing defines video games more than player choice. Interactivity is what separates games from static entertainment forms like film and literature . . . " (p. 56).

These three writers all emphasize interactivity's status as the single, essential feature differentiating video games from other media. Yet video games also differ from traditional media in a second fundamental way: They are games. Film, novels, and television are not games.[1] The writers quoted above are presumably aware of interactive media that are not video games, such as *Choose Your Own Adventure* books. Why, then, do they highlight interactivity as the *only* major difference between video games and other media, rather than describing it as one of two major differences? I propose that their language reflects a tendency, common in academic video game discourse, to conflate the concepts of gameplay and interactivity. They highlight interactivity as the one major difference because they think of these two concepts as roughly equivalent in the context of video games.

While no one positively states that gameplay and interactivity are fully identical concepts, several scholars use the terms in ways that suggest practical equivalence or, at minimum, elide important distinctions.[2] Rouse (2001), for example, claims that "A game's gameplay is the degree and nature of the interactivity that the game includes, i.e. how the player is able to interact with the game-world and how that game-world reacts to the choices players make" (p. xviii). Juul's (2005) influential book *Half-Real* describes gameplay as "the pure interactivity of the game" (p. 19), and Juul's (2014) entry on "gameplay" in *The Johns Hopkins Guide to Digital Media* states, "gameplay is typically used to describe the specific experience of interacting with the game" (p. 216). These types of sentiments are summarized by Landay (2014) in her comprehensive overview of the concept "interactivity" for *The Routledge Handbook to Video Game Studies*. She notes that for video game scholars, "often interactivity is equated with the concept of gameplay" (p. 177). After providing several supporting examples, she concludes, "In practical terms, interactivity in video games is what a player can do in them—the choices and action that comprise gameplay" (p. 182).

Some reflection, however, reveals that the concepts of gameplay and interactivity have important differences. Although gameplay requires interactivity, there are several ways in which works that are not games can be interactive.[3] The world of fine art, for example, includes works such as Daniel Rozin's dynamic installation *Wooden Mirror* (1999), in which a video camera hidden in a wall-mounted array of square wooden tiles provides information to a computer, which tilts the tiles so they present an apparent mirror image to viewers. Interactive works exist in popular arts as well, such as concerts in which a singer leads the audience in a sing-along and

theatrical magic shows with audience participants. None of these interactive works, however, are games in the ordinary-language sense.

Despite these examples, it is not surprising that gameplay and interactivity are sometimes conflated, as several factors encourage this practice. First, since players must interact with video games to play them, all video games must be interactive. Consequently, when discussing video games, scholars are discussing a group consisting entirely of interactive objects. Second, people frequently discuss ways video games differ from mainstream films and novels, which are neither interactive nor games. Since video games are interactive games, and other types of mainstream entertainment are noninteractive nongames, gameplay and interactivity are easily grouped together. Finally, video games are the only type of interactive works that have achieved success with a mass audience.[4] Most people have not spent significant time engaging with interactive works other than video games. For those who have engaged with many types of interactive art, there is a clearer distinction between interactivity and gameplay. For those who have not, this distinction is less salient.

One might feel that conflating gameplay and interactivity is a small issue, especially when discussing commercial entertainment media, given the relatively small percentage of films and books that are interactive. Yet the costs of such conflation are not limited to ignoring such works, especially when trying to understand players' emotional responses. Someone who conflates gameplay and interactivity may be tempted to think of emotions caused by gameplay and emotions caused by interactivity as identical categories, but I argue that these categories are quite different. To make my case, I first describe a theory of emotion based on the psychological literature. I then characterize the concepts of gameplay and interactivity and argue that, when analyzing emotional responses to video games and other media, video game scholars are best served by thinking of interactivity as a feature of a work and gameplay as a mental framework or attitude of the audience. Finally, I highlight two benefits of my account in understanding player experience: It allows recognition of important ways that interactivity elicits emotion outside of gameplay, which is necessary to understanding many types of player experiences, and it encourages us to discuss "game emotions" rather than "gameplay emotions," which helps us better understand which emotions are actually unique to gameplay.

Before beginning, I'll make two comments on my methodology. First, given the history of definitional disputes surrounding the concepts of interactivity, game, and play, one might be skeptical as to whether these terms can be clearly discussed in any way other than simply stipulating reductive definitions. But note that my goal here is not to come up with a definitive description of these concepts appropriate for all contexts and purposes; I discuss these concepts in the specific context of understanding emotional responses to video games. And even within this context, I don't aim to provide definitions for these terms and defend them against all counterexamples and alternate definitions. My more modest goal is to identify broadly agreed-upon features of each of these concepts within the context of emotion only to

demonstrate that, in this context, interactivity and gameplay are importantly different.

Second, although I focus on understanding emotion, other research areas may be better served by alternate notions of these concepts. Scholars sometimes conceive of terms such as "game" or "play" in an expansive or figurative sense in order to draw illuminating connections between ostensibly disparate fields. Malaby (2007), for example, defines a game as "a semibounded and socially legitimate domain of contrived contingency that generates interpretable outcomes," but does so for the express purpose of investigating "how people socially construct games" (pp. 96–97). While Malaby aims to emphasize the complex social networks that influence the experience of gameplay, I aim to take the complex experience of gameplay and make nuanced distinctions that will allow better analysis of its component parts. Such analysis can help explain why, intuitively, the emotional experience of engaging with video games seems very different from engaging with other types of works.

Emotions

One reason it is difficult to discuss emotional responses to video games is the sheer variety of video games and the emotional responses they evoke. A less salient obstacle is the mismatch between common responses to video games and ordinary-language emotion terms. While video game players often feel easily named emotions such as frustration, happiness, and suspense, no common emotion label corresponds to "having fun by being frustrated" or "being uncertain of the reason your avatar's movements don't correspond to your button presses." Further, emotion terms often exclude many related types of responses, such as longer-term "moods" and the valenced associations often called "preferences." Researchers thus frequently refer to "affect" rather than emotion, "affect" being a broad term that includes a broad range of valenced feelings (Frijda & Scherer, 2009). For simplicity, I'll use the word "emotion" in a broad sense as equivalent to "affect." On this usage, people experience emotions and have emotional responses continually whenever they are conscious and are responding to situations in ways that feel positive or negative. Thus, on my use of the term, not only are borderline examples like "having fun" emotions, so are reflex responses, moods, and preferences, so long as they are accompanied by valenced subjective feelings. While a narrower understanding might better reflect ordinary-language use of the term "emotion," it would exclude many types of responses to video games relevant to this discussion.

Although the definition of "emotion" has been historically contested, the following is a standard view in psychology (Sander & Scherer, 2009; Scarantino, 2016). Theorists across the methodological spectrum agree that emotions (understood in the broad sense outlined above) can be described as bodily changes that are prompted by appraisals of situations based on one's goals and concerns. The appraisals involved range widely in the cognitive complexity they require and in their salience (in fact,

people are unaware of most appraisals they make). The consequent bodily changes include mental states (constituted by brain activity), including subjective feelings, and behaviors or behavioral dispositions. Once this initial emotional response has begun, people cognitively monitor and regulate their response, consciously or not (Robinson, 2005), and components of the response (such as feelings or actions) become new aspects of the situation that themselves can lead to emotional responses. In this way, emotional responses are recursive, acting in a continuous feedback loop (Scherer, 2009).

Consider a player who loses hours of video game progress when his character is killed, and the player then rage-quits by shutting off his computer. His response is prompted by a situation that includes not only physical objects in the player's external environment, such as the computer, but also more abstract objects, such as the rules of the video game. The situation also includes events, such as the character dying in-game, and the player's internal environment, that is, aspects of his own bodily and mental states. The player evaluates the situation of his character dying as counter to his goals. He experiences physiological changes, some hidden, such as changes in heart rate, and some visible, such as the action of turning off the computer. These changes are accompanied by a subjective experience, the feeling of anger. During the process, the player monitors his emotional response and the response itself becomes a new part of the situation. For example, the player may note his intense feelings and respond by worrying about whether he is overreacting to the situation. Even this very simplified account highlights the immense complexity of emotional response, as well as the multiple types of situational features that must be considered when theorizing about such responses to video game play.

Understanding the relationship between gameplay, interactivity, and player experience requires the introduction of another concept: mental frameworks (or frames). Apter (1991) is one of several scholars who have used a theory of mental frames to provide a general account for how people experience and respond to reality.[5] Apter (1993) holds that human experience is structured by phenomenological frames, which provide a context for experience and cause people to experience situations "in a particular kind of way" (p. 28). He argues that these frames come in pairs and that people's emotional experiences often change as they switch from one frame to another.[6] For example, a sudden, loud crash may cause heart-pounding alarm (the situation understood in a "potential danger" frame) until one discovers that it was caused by someone dropping a tray (switch to a "harmless accident" frame; Apter, 2007, p. 54). I propose that at least some of these psychological frames provide appraisal criteria for evaluating situations and those criteria largely determine one's emotional response. Children may be scared when they are chased by others if they frame the situation as a serious one and appraise it based on possible danger, but if they frame the situation as playful, the appraisal criteria change and the situation can generate laughter.

This overview of emotional response, psychological frames, and appraisal criteria establishes the categories that underlie my argument about gameplay and

interactivity. Emotions are appraisals of situations, and frames provide appraisal criteria for situations. Thus, one might categorize emotions by either the type of situation generating the emotion or by the framework being used to appraise a given situation. My argument, in short, is that when discussing video game emotions, interactivity is best understood primarily as a type of situation, which can be appraised using several different frames, each with different appraisal criteria. In contrast, gameplay is best understood as one type of cognitive frame, which can be active in both interactive and noninteractive situations.[7] Conflating these concepts is thus a sort of category mistake. To justify these claims, I now turn to characterizing gameplay and interactivity more specifically.

Gameplay

In one sense, the meaning of "gameplay" is obvious: It is the activity of playing a game. Gameplay is one type of play, and calling something gameplay serves to distinguish it from many other kinds of play, such as playing "house," play fighting, or playfully flirting. Play, broadly, has been described as a state in which actions are marked off from ordinary life (Bateson, 1955; Caillois, 1958/2001; Huizinga, 1949). Psychologists using frame analysis frequently describe play as a frame people use to interpret their experiences (Apter & Kerr, 1991; Goffman, 1974/1986). One of the primary frame pairs that Apter (1991) discusses is "serious-playful."[8] In a serious frame, actions are taken to achieve long-term goals, while in a playful frame, actions are taken primarily for their present enjoyment (p. 16). Real fighting, then, is done for the purpose of injuring your opponent, while play fighting is done just for the excitement of the activity itself.

How is a gameplay frame different from the frames used for other types of play? Answering this question requires addressing what "game" means. There is skepticism about defining the term "game," in part due to Wittgenstein's (1958) well-known use of games as a paradigmatic example of a concept that cannot be defined (p. 36c). Yet in the context of trying to differentiate emotional responses to various media, "game" can be sufficiently characterized. At minimum, a game is a constructed system that invites players to take actions according to rules to achieve a goal.[9] As I will argue, these features are relevant to emotion in that they are central to players' situational appraisals. This characterization of "game" is consistent with the best formal definition of game, by Suits (1978/2014), as well as definitions of game by Juul (2005) and Salen and Zimmerman (2004), which are the most popular definitions of games in game studies (Stenros, 2017). Perron's (2003) discussion of French and Anglophone scholars also concludes that, in English, the term "play" generally refers to free play, while the term "game" refers to a mode of play "defining itself by rules that order its course" (p. 241). While my characterization of "game" is, for some purposes, overbroad, it is sufficient to provide some basic criteria for gameplay that still allow us to differentiate it from interactivity and thus to understand the consequences of conflating the two concepts.

Many games scholars (e.g., Fullerton, 2014), following Suits (1978/2014), say that playing a game requires a certain state of mind: a "lusory attitude" (p. 35) in which players assent to follow the rules of the game in order to achieve the game's goals. At first glance, this attitude may seem to require (in Apter's [2007] terms) a serious frame, in which actions are goal-oriented rather than enjoyed in themselves. Apter (1991) acknowledges, however, that playful activities often have a goal. What distinguishes serious situations with goals from playful situations with goals is that in playful situations, the goal is adopted merely for the sake of enjoying the activity rather than as a useful end in itself (p. 16). Thus, casual basketball players want to put the ball in the basket not as part of any long-term life plan but just to allow them to enjoy playing the game of basketball. If putting the ball in the basket is part of a long-term plan, as might be the case for a professional basketball player whose salary depends on his success in doing so, then the player is likely to approach the task in a serious frame of mind, not a playful one (Kerr, 1988).

To see that gameplay involves a certain attitude or mental frame and not just visible behaviors, imagine that two actors are shooting a fiction film about chess. As part of the script, they move chess pieces on a chess board in a predetermined manner. Even if their moves are identical to moves they might have made while playing chess before the shooting began, while shooting the film they are not playing chess because they do not have the mental intentions appropriate to gameplay. They are not perceiving the situation through a gameplay framework; their pieces are film props, not opportunities for victory. Playing chess requires certain mental states such as evaluating the outcomes of possible moves or appraising whether a game state is likely to lead to victory or defeat. Gameplay, then, is not simply interacting with a game, it is interacting with a game in accordance with its invitation to act, as its rules allow, to achieve some goal.

This example shows why it is essential not to confuse or to conflate players' mental attitudes with their behaviors. While it is the case that behaviors may be caused by and may reflect a particular mental attitude, it is also the case that one behavior may be caused by more than one mental attitude. Just because people engage in the behaviors normally associated with playing chess does not mean they are playing chess.

Finally, while a gameplay frame requires some sort of situation to which the frame can be applied, given the variety of situations in which games can be played (with pieces vs. without pieces, players physically proximate vs. distant, simultaneous action vs. turn-taking, solo vs. multiplayer), saying that someone is playing a game tells us almost nothing about their situation. For this reason, gameplay is best understood as a mental framework or attitude rather than a type of situation.

Interactivity

Aarseth's (1997) critique of the term "interactivity" is sometimes cited as evidence that the concept is hopelessly elusive.[10] Others, such as Manovich (2002) and

Crawford (1984), have warned against using the term without qualification due to its breadth of possible meanings. Yet there are drawbacks to simply avoiding it, since, as Landay (2014) notes, "despite misuse and contested definition, interactivity continues to be essential in video game studies" (p. 174). Fortunately, as I will argue, interactivity can be usefully characterized, and doing so is actually essential to understanding the experience of playing video games.

The concept of interactivity is murky enough to have prompted no less than five literature reviews aiming to clarify it, each analyzing dozens of characterizations of the concept (Bucy, 2004; Downes & McMillan, 2000; Jensen, 1998; Landay, 2014; McMillan, 2002).[11] These discussions agree on two points: There are several types of interactivity, and the term's meaning is highly context-dependent, particularly when moving between academic disciplines.

As a first step in narrowing the concept's scope, I follow a recommendation by authors of three of the reviews (Bucy, 2004; Downes & McMillan, 2000; Jensen, 1998) that scholars reserve use of the term "interactivity" for situations involving mediating technology, which excludes ordinary in-person communication. Absent such a restriction, any form of communication or multiparty engagement would be considered interactive and the concept would lose its usefulness in understanding media engagement specifically.

A second restriction involves the sense of interactivity as communication. Advocates of this view, such as Rafaeli (1988), tend to describe interactivity as the exchange of messages between people. But Landay (2014) states that in new media studies, communication is more broadly conceived as including information exchanges between people and machines, and Bucy (2004) argues that "interactivity should not be considered synonymous with social interaction" lest it be used too broadly (p. 375). Both Landay and Bucy note that when using new media, a person can perceive the interaction as a two-party interaction even if only one actual person is involved (e.g., when "talking" with computer-controlled characters). Further, many video game experiences are single player. Since player experience is my focus, there is no reason to limit use of "interactivity" to situations with more than one person. I thus agree with Bucy's (2004) recommendation that interactivity include (but not be limited to) "impersonal interactions with media content or non-human agents" (p. 375).

Within these two restrictions, several notions of interactivity remain. One that can be quickly dismissed as overly broad requires nothing other than use of an electronic interface. "Interactive" was an adjective applied in earlier decades to technologies such as CD-ROMs and websites.[12] But the present concern regards stand-alone works designed for audience engagement—that is, things like films, books, and video games—not computer interfaces broadly.

Two main notions of interactivity remain. On the first, the concept of interactivity operates to emphasize people's activity, rather than passivity, when engaging with works. In response to the Frankfurt School critique that media audiences are often passive subjects, scholars such as John Fiske have argued that, to the contrary,

audiences actively construct culture through engagement with media (Gorton, 2009). Along other lines, literary theorists such as semiotician Roland Barthes (1975) and reception theorist Wolfgang Iser (1980) emphasize the reader's role in constructing the meaning of a text, which, they argue, is created through the reader's interaction with the text. Film scholar David Bordwell (1985) points out that audiences must actively engage in mental processes such as inference and temporal reordering in order to understand narrative. In video game studies, Salen and Zimmerman (2004) define four levels of interactivity, and the first level "cognitive interactivity or interpretive participation" corresponds to the view that mental processes alone can constitute interactivity (p. 59).

Based on these lines of thought, some scholars endorse the view that interactivity refers to the way that audiences necessarily engage with works in an active manner and interpret works using their individual cultural histories. It is this tradition that leads to claims such as "All classical, and even more so modern art, was already 'interactive' in a number of ways" (Manovich, 2002, p. 71). The notion that audiences are not just passive vessels into which meanings are poured has been central to a more accurate understanding of the complex nature of reception. This insight is crucial, for example, in understanding why individuals and social groups can respond differently to the same work. But this view is not appropriate for the current topic because it fails to distinguish between video games and traditional media. Those who conflate interactivity and gameplay frequently do so in the context of distinguishing between video games and other media. They are not using the term to indicate a general activity on the part of the audience. In the present discussion, interactivity must be understood in a way that reflects the intuition that players' experience of video games is significantly different from that of traditional media.

What remains is a notion of interactivity most appropriate to understanding players' emotional responses to video games: Interactive works are those that invite audiences to engage with them in ways that change the presentation of the works' perceptible elements (e.g., images and sounds). Stated differently, interactive works invite the audience to change the works' form and/or content.[13] On this view, video games are interactive because the player's actions influence the sequential presentation of the video game: what images are displayed, what sounds are generated, and the timing and sequencing of the presented images and sounds. In contrast, most films and books are not interactive in this way because, regardless of what happens in the minds of their viewers and readers, the form or content of those works—that is, a film's images and sounds or a book's written words—will be unchanged.

An early example of this notion in the context of artworks is Ettinger's (1991) description of "computer art" that has "interactional properties": "this kind of art is not passively experienced but can be manipulated by an audience in simple or complex ways" (p. 26). Starting in the late 1990s, numerous scholars describe the concept in similar ways. Jensen (1998) states, ". . . interactivity may be defined as: a measure of a media's potential ability to let the user exert an influence on the content and/or form of the mediated communication" (p. 201). Two prominent philosophers

of art defend similar definitions of "interactivity," albeit in the terms of their discipline (e.g., "just in case" rather than "only in cases where").[14] D. Lopes (2009) argues, "A work of art is interactive just in case it prescribes that the actions of its users help generate its display" (p. 36), and Gaut (2010) argues "...a work is interactive just in case it authorises that its audience's actions partly determine its instances and their features" (p. 144).

In terms of the model of emotional response described above, interactive works differ from noninteractive works in that they present audiences with a type of situational object that noninteractive works don't: namely, the audience's authorized actions that affect the work's features. For example, consider Ann, who plays a video game, and Bob, who later watches a recording of Ann's screen during her play. Although Ann's and Bob's screens both present the same images and sounds, Ann engages with an interactive work, while Bob engages with a noninteractive work. Ann and Bob are not merely looking at a similar situation through different frames. Ann's situation includes things absent from Bob's situation, including Ann's gameplay actions. When Ann presses a button, her character jumps. Bob later sees the same character jump, but his situation does not include the action of him pressing a button.

The distinction between situations and mental frames is important because interactive situations offer the potential for audience actions, which can act as stimuli for types of emotional response not available, in some cases, in noninteractive situations. Self-conscious emotions such as pride, shame, and guilt often rely on a sense of responsibility tied to action (Lewis, 2016). Noninteractive works rarely generate self-conscious emotions like pride because the audience ordinarily is not responsible for any of the work's features.[15] Ann and Bob will both experience the result of Ann's button press, but only Ann will experience it as the result of her own actions. Thus, if the button was pressed at the right time, Ann might respond to the consequent video game events with pride, while Bob, who did not create any part of the work, should not.

The absence of authorized audience actions in noninteractive works and the consequent differences in emotional response support the notion that we should consider engagement with interactive works to be a type of situation distinct from engagement with noninteractive works. This absence also helps explain the intuition that playing video games is a very different activity from engaging with traditional mainstream works.

The claim that interactivity is best understood as a feature of a work does not imply that there is no such thing as an interactive mental frame, nor does it suggest that the perception of interactivity is irrelevant to emotional response. A situation is not experienced as interactive unless a person views it as one in which they have an opportunity to change the form or content of a work, which does require a certain mental attitude. And, as both Laurel (1993) and Landay (2014) note, the actual interactivity of a work has no impact if the work is not perceived as interactive by the audience. But, crucially, a mental frame interpreting a work as interactive is a

broad frame that does not imply any assessment criteria. A player sees a game as an opportunity for interaction, but the assessment criteria come not from perceiving an opportunity for interaction per se but from perceiving the situation as a game with goals the player would like to achieve. The situation of gameplay generates players' emotion based on players' appraisals of whether a particular game state helps or harms their chance to achieve game goals, and those appraisal criteria are tied to the game frame, not the interactivity of the situation.

Interactive Nongameplay Emotions

Looking at interactivity primarily as situational feature and gameplay primarily as interpretive framework has numerous benefits for better understanding of emotional response to video games. First, it highlights the significance of emotional responses to interactive situations that are not based on gameplay. Although Deterding (2009) suggests that we should think of video game play as structured by a general "video game frame," an emotion-based approach suggests different frames for each set of criteria used in appraisal and emotional response. Perron (2005) has utilized Tan's (1996) account of film emotions to suggest that in addition to game emotions, video games create fiction emotions and artifact (i.e., aesthetic) emotions. Along similar lines, I have previously discussed emotions created by artifact and narrative frames (Frome 2007, 2016). An artifact frame implies appraisal criteria relevant to evaluating artworks. For example, in *The Legend of Zelda: Breath of the Wild* (Nintendo, 2017; hereafter *Breath of the Wild*), players can choose to change the color of their horse's mane with no effect on gameplay. Players appraise the outcome of their color choice according to whether their actions helped them meet their aesthetic goals, not their game goals. A narrative frame implies appraisal criteria relating to whether a situation is good or bad for the characters in the story (including, potentially, the player's character). Consider a highly narrative game such as the point-and-click adventure *Grim Fandango* (LucasArts, 1998). The player may feel sympathy for the player character when the character's boss criticizes his job performance. Such sympathy is based on an appraisal of the situation in terms of the character's fictional mental states, not the player's game goals.

Theorists who conflate interactivity and gameplay might have difficulty explaining certain types of player response. Järvinen (2008), who provides one of the most sophisticated accounts of video game emotions to date, states that engaging with video games is different from "other forms of entertainment . . . due to the interactive nature of gameplay" (p. 88). Accordingly, after noting that "games impose goals on players," he describes player emotions as valenced appraisals of situations that players face "in trying to attain those goals" (p. 86). Thus, on his account, players' positive or negative emotions can be explained by whether they appraise the game state as helping or hindering their achievement of game goals. Since Järvinen sees player emotion as centrally caused by gameplay appraisal criteria, on his view, "aesthetic stimuli" such as "flashy graphics" do not cause emotions directly but in

a supplementary fashion based on the ways that they provide gameplay information: "Such stimuli have a role in communicating and amplifying the meaning of game states and game sequences . . ." (p. 96). Yet his assumption that interactive engagement is equivalent to gameplay, and thus that a gameplay frame must be central to player emotions, can make it difficult for him to account for many player responses. Such an approach cannot explain, for example, why players might be delighted or dismayed at how their horse in *Breath of the Wild* looks with a purple mane, since mane color is completely irrelevant to achievement of game goals.[16] In contrast, my account suggests that a player's pride can be explained as their appraisal of their activities using not a gameplay frame, but an aesthetic frame in which actions are judged by the aesthetic success of the outcome. A case of emotions that contrast with game goals makes the significance of nongameplay appraisal frames even clearer. At the end of *Grim Fandango*, a scene narratively portrays the sad end of a character relationship but also highlights the happy achievement of game goals. Players' negative or mixed emotions during this situation suggest that mental frames other than gameplay affect players' emotional responses.

Game Emotions Versus Gameplay Emotions

A second benefit of distinguishing between gameplay and interactivity is a more accurate analysis of game-related emotions, which, I argue, should be referred to not as "gameplay emotions" but as "game emotions." In contrast, Perron (2011) has argued that games scholars should talk about "gameplay" emotions rather than "game emotions" because the latter suggests that the emotions are produced by the game itself, which obscures the fact that the emotions are part of player experience (pp. 145–146). I am less concerned about this potential confusion, especially in discussions that clearly center on player experience. Consider what the descriptor "gameplay" or "game" implies. Perron distinguishes between "fiction emotions, which are rooted in the fictional world with the concerns addressed by that world" and "gameplay emotions . . . which arise from the actions of the gamer in the game world" (pp. 7–8). The problem with this distinction is that what determines a player's emotional response to a video game at a particular moment is the mental frame used to appraise the video game situation and the appraisal criteria that frame implies. Yet while "fiction emotions" matches such an approach, "gameplay emotions" does not. Viewing a video game situation as a fictional world implies appraisal criteria used to evaluate characters, such as moral criteria about whether the player wants good or bad things to happen to a character. In contrast, Perron defines gameplay emotions as emotions following from players' game actions. However, as argued above, what makes a situation a game is not the actions players take but the mental framework used to appraise such actions. And the appraisal criteria used to evaluate a game situation are whether the situation helps or hinders one's goals for the game's outcome.

Yet, even if Perron's (2011) definition of gameplay emotions fails to match an appraisal-based account of emotions generally, why refer to game emotions rather than gameplay emotions? The answer is that game emotions occur in both interactive and noninteractive situations. A gameplay situation must allow interactivity because games necessarily let players make moves. I argue above that situations in which audiences engage with interactive works generate emotions in those audiences using mental frames other than a gameplay frame. In this sense, interactivity is a broader concept than gameplay. Yet, in another sense, a game frame is broader than interactivity, because this frame is used in both interactive and noninteractive situations. Consider two people playing *Super Smash Bros. Melee* (Nintendo, 2001), a one-on-one fighting game. After a tough match, the victor may feel emotions of happiness, relief, and pride. Theorists who think of interactivity and gameplay as essentially interchangeable might be tempted to attribute these emotions to the player's gameplay and thus to think of these as interactive emotions. Yet, if the match takes place at a tournament, the victor's friends might feel happiness and relief at the victory as well, despite the fact that they are not playing the game. To extend the example, an audience watching a film about a fictional *Super Smash Bros. Melee* player might also feel happiness and relief at the player's climactic victory, despite the noninteractive nature of the work they are viewing. Yet, if film viewers can appraise fictional situations using a game framework, and their positive emotions are the result of appraising the situation as matching their desire that a character win the game, then it is a mistake to think that game-based emotions in an audience member are necessarily a consequence of that audience member's interactive activity. This example demonstrates that emotions sometimes attributed to a work's interactive features, or to the gameplay activities of a player, may in fact not require that the people feeling those emotions actually be playing the game. Further, recognizing that a game framework applies in noninteractive situations can help researchers isolate emotions that may, in fact, require one's own actions, such as positive emotions associated with improving one's skills. Returning to Perron, talking about gameplay emotions has a clear drawback in that it implies that the game-related emotions generated while playing a game are always attributable to the interactive activity of gameplay, but as this example shows, the implication is false.

Conclusion

There has historically been "passionate debate" about whether video game research should consider video games as extensions of games or narrative (Frasca, 2003, p. 221). Scholars also debate the degree to which video games overlap with the world of fine art (e.g., Sharp, 2015). These debates continue because video games are hybrid objects, combining features of games with features of other types of representational works. One reason it is so difficult to generalize about player responses to video games is that, as hybrid objects, video games combine features of games and artworks in different proportions. Compounding this difficulty is the

fact that people play video games in a wide variety of styles, with varying purposes, in diverse situations. As I argue above, part of the solution is to make some important distinctions more salient when analyzing video games and, when appropriate for particular research domains, to use terms in more specific ways. In terms of studying emotional responses to video games, scholars could focus less on whether video games are extensions of games, narrative, or fine art and more on answering specific research questions, such as why some commercial video games generate similar emotions as films based on certain appraisal frameworks but different emotions than art games based on other appraisal frameworks.

Conflating gameplay and interactivity has several unfortunate consequences. In terms of interactivity, it encourages researchers to ignore aspects of interactivity other than gameplay. For example, in *The Art of Failure*, Juul (2013) argues that "there are two types of failure in [video]games: real failure occurs when a player invests time into playing a game and fails; fictional failure is what befalls the character(s) in the fictional game world" (p. 25). Here, Juul overlooks other types of failure that players might experience when engaging with a video games through nongame frameworks, which include interactive frames such as an aesthetic frame. Returning to the *Breath of the Wild* example, a player who picks an ugly mane color for their horse (according to whatever aesthetic criteria the player has) might be embarrassed at their failure to make the horse more attractive. This is not an example of what Juul calls "fictional failure," since the failure was in the player, not the player's character. And it is not what Juul calls "real failure," since the player hasn't failed at the game aspects of *Breath of the Wild*. It is an artistic failure, based on appraising a situation through an aesthetic frame, and interactive engagement with works can include other frames as well.

Conflating gameplay and interactivity also encourages video game scholars to think about emotions based on game goals as interactive emotions or gameplay emotions, when they are better served thinking of them as game emotions that include both interactive and noninteractive aspects. The "game emotions" label allows a better understanding of both the similar and the distinct emotional responses among video game players and nonplaying spectators.

Finally, going forward, a shift in use of these terms may provide ontological and epistemological benefits for video game studies. Since interactive works exist that are not video games, differentiating interactivity and gameplay can be useful for identifying such works, which include computer art and works in virtual reality whose categories are still being created. Also, consider works that are culturally characterized as video games, such as *SimCity* (Maxis, 1989), but do not have explicit goals. Salen and Zimmerman (2004) argue that, in this way, *SimCity* "is more like a toy than a game" (p. 82). There are many video games like *SimCity* that may not strictly qualify as games. Differentiating gameplay and interactivity helps us contrast the experience of playing these video games from others that are unambiguously games. Ideally, scholars can continue to move past the concern of whether video games are more like games or stories into more nuanced discussions of degrees of interactivity;

ways that game emotions are generated by both interactive and noninteractive works; and how different types of hybrid objects, such as interactive computer art, art games, interactive narratives, and digital virtual reality experiences, can be understood to generate emotions in either common or unique ways.

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Notes

1. Arguably, some video games are not games and some traditional media are games. I will address these points later in this article.
2. Of course, there are also scholars who define gameplay without reference to interactivity (e.g., Eskelinen, 2004).
3. I use the term "works" rather than "artworks" to avoid any connotations of evaluation. On my usage, "works" includes all instances of a medium or art form presented in an aesthetic context, including physical objects (e.g., paintings) and performances (e.g., symphonies).
4. See discussion in Tavinor (2011). I refer to "interactive works" rather than "interactive media" to exclude ubiquitous technologies such as the Internet and smartphones, which are typically not artworks.
5. A commonly cited text in discussing frames in the context of game studies is sociologist Erving Goffman's (1974/1986) *Frame Analysis*. I refer to Apter rather than Goffman due to the former's focus on the subjective phenomenology of experience, which is more suited to discussing the experience of emotion, as opposed to the latter's focus on social behavior, which may be better suited to understanding emotional expression.
6. Although I rely on aspects of Apter's theory, my argument neither endorses nor relies on Apter's theory in all its details or conclusions.
7. Although others have argued that we should think of gameplay as a situation, they are addressing research questions other than emotion; for example, Eskelinen (2001) focuses on basic ontological issues, and Upton (2017) aims to explain good game design.
8. Apter calls the "serious" and "playful" frames *telic* and *paratelic*, respectively.

9. I present these as minimal features of a game, not sufficient criteria. A more comprehensive description might include criteria such as artificiality, voluntariness, or inefficiency.

10. See Tavinor (2009) for a persuasive response to Aarseth's position.

11. Eichner (2014, p. 3) cites three additional literature reviews of "interactivity" in German.

12. For example, Saltz (1997) describes CD-ROMs as interactive. See Lopes (2001) and Smuts (2009) for a critique of this usage.

13. Regarding video games, the claim is not that players change what a video game can potentially show during gameplay (i.e., that they change its underlying programming). I claim that players change what is displayed, moment-to-moment, as they play.

14. See Smuts (2009) for a critique of these definitions and Tavinor (2013) for a response.

15. By "pride" I mean pride about some feature of the work. I grant that noninteractive works might generate vicarious pride about a work's features (e.g., if one's friend created the work) or they might generate other types of pride associatively (e.g., propaganda films may generate pride in one's national heritage).

16. Järvinen (2008) does claim that aesthetic stimuli can also "be used as design drivers to remediate . . . emotional potential" (p. 96) but does not explain how remediation can lead to emotional elicitation.

References

Aarseth, E. J. (1997). *Cybertext: Perspectives on ergodic literature*. Baltimore, MD: Johns Hopkins University Press.

Apter, M. J. (1991). A structural-phenomenology of play. In M. J. Apter & J. H. Kerr (Eds.), *Adult play: A reversal theory approach* (pp. 13–29). Amsterdam, the Netherlands: Garland Science.

Apter, M. J. (1993). Phenomenological frames and the paradoxes of experience. In J. H. Kerr, S. Murgatroyd, & M. J. Apter (Eds.), *Advances in reversal theory* (pp. 13–26). Amsterdam, the Netherlands: Psychology Press.

Apter, M. J. (2007). *Reversal theory: The dynamics of motivation, emotion, and personality*. Oxford, England: Oneworld.

Apter, M. J., & Kerr, J. H. (Eds.). (1991). *Adult play*. Amsterdam, the Netherlands: Garland Science.

Barthes, R. (1975). *S/Z: An essay* (R. Miller, Trans.). New York, NY: Hill & Wang.

Bateson, G. (1955). A theory of play and fantasy. *Psychiatric Research Reports*, *2*, 39–51.

Bordwell, D. (1985). *Narration in the fiction film*. Madison: University of Wisconsin Press.

Bucy, E. (2004). Interactivity in society: Locating an elusive concept. *The Information Society*, *20*, 373–383. doi:10.1080/01972240490508063

Caillois, R. (2001). *Man, play, and games* (M. Barash, Trans.). Urbana: University of Illinois Press. (Original work published 1958)

Cole, S. M. (2017). *Identity and play in interactive digital media: Ergodic ontogeny*. New York, NY: Routledge.

Crawford, C. (1984). *The art of computer game design*. New York, NY: McGraw-Hill.

Deterding, S. (2009). The game frame: Systemizing a Goffmanian approach to video game theory. In *Proceedings of DiGRA 2009: Breaking new ground: Innovation in games, play, practice and theory* (pp. 1–5). West London, England.

Downes, E. J., & McMillan, S. J. (2000). Defining interactivity: A qualitative identification of key dimensions. *New Media & Society*, *2*, 157–179.

Eichner, S. (2014). *Agency and media reception: Experiencing video games, film, and television*. Potsdam, Germany: Springer.

Eskelinen, M. (2001). The gaming situation. *Game Studies*, *1*. Retrieved from http://www.gamestudies.org/0101/eskelinen/

Eskelinen, M. (2004). Towards computer game studies. In N. Wardrip-Fruin & P. Harrigan (Eds.), *First person: New media as story, performance, and game* (pp. 36–44). Cambridge: MIT Press.

Ettinger, L. F. (1991). Criticism of computer art: The implications of interactivity. In D. E. Blandy & K. G. Congdon (Eds.), *Pluralistic approaches to art criticism* (pp. 24–31). Bowling Green, OH: Bowling Green State University Popular Press.

Frasca, G. (2003). Simulation versus narrative: Introduction to ludology. In M. J. P. Wolf & B. Perron (Eds.), *The video game theory reader* (pp. 221–235). New York, NY: Routledge.

Frijda, N. H., & Scherer, K. R. (2009). Affect (psychological perspectives). In D. Sander & K. R. Scherer (Eds.), *The Oxford companion to emotion and the affective sciences*. Oxford, England: Oxford University Press.

Firaxis Games. (2005). *Civilization IV* [PC game]. New York, NY: Take-Two Interactive.

Frome, J. (2007). Eight ways videogames generate emotion. In B. Akira (Ed.), *Situated Play, Proceedings of the 2007 Digital Games Research Association Conference* (Vol. 4, pp. 831–835). Retrieved from http://www.digra.org/digital-library/publications/eight-ways-videogames-generate-emotion/

Frome, J. (2016). Video game sadness from Planetfall to Passage. In B. Perron & F. Schröter (Eds.), *Video games and the mind: Essays on cognition, affect and emotion* (pp. 158–173). Jefferson, NC: McFarland.

Fullerton, T. (2014). *Game design workshop: A playcentric approach to creating innovative games* (3rd ed.). Boca Raton, FL: CRC Press.

Gaut, B. (2010). *A philosophy of cinematic art*. New York, NY: Cambridge University Press.

Goffman, E. (1986). *Frame analysis: An essay on the organization of experience*. Boston, MA: Northeastern University Press. (Original work published 1974)

Gorton, K. (2009). *Media audiences: Television, meaning and emotion*. Edinburgh, Scotland: Edinburgh University Press.

Huizinga, J. (1949). *Homo Ludens: A study of the play-element in culture*. London, England: Routledge.

Isbister, K. (2016). *How games move us: Emotion by design*. Cambridge: MIT Press.

Iser, W. (1980). *The act of reading: A theory of aesthetic response*. Baltimore, MD: Johns Hopkins University Press.

Järvinen, A. (2008). Understanding video games as emotional experiences. In B. Perron & M. J. P. Wolf (Eds.), *The video game theory reader 2* (pp. 85–108). New York, NY: Routledge.

Jensen, J. F. (1998). Interactivity: Tracking a new concept in media and communication studies. *Nordicom Review*, *19*, 185–204.

Johnson, S. (2013, May). When choice is bad: Finding the sweet spot for player agency. *Game Developer Magazine*, *20*, 56–57.

Juul, J. (2005). *Half-real: Video games between real rules and fictional worlds*. Cambridge: MIT Press.

Juul, J. (2013). *The art of failure: An essay on the pain of playing video games*. Cambridge: MIT Press.

Juul, J. (2014). Gameplay. In M. L. Ryan, L. Emerson, & B. J. Robertson (Eds.), *The Johns Hopkins guide to digital media* (pp. 216). Baltimore, MD: Johns Hopkins University Press.

Kerr, J. H. (1988). Play, sport and the paratelic state. In M. J. Apter, J. H. Kerr, & M. P. Cowles (Eds.), *Progress in reversal theory* (pp. 77–88). New York, NY: Elsevier.

Landay, L. (2014). Interactivity. In M. J. P. Wolf & B. Perron (Eds.), *The Routledge companion to video game studies* (pp. 173–184). New York, NY: Routledge.

Laurel, B. (1993). *Computers as theatre*. Reading, MA: Addison-Wesley.

Lewis, M. (2016). Self-conscious emotions: Embarrassment, pride, shame, guilt, and hubris. In L. F. Barrett, M. Lewis, & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (4th ed., pp. 792–814). New York, NY: Guilford Press.

Lopes, D. (2009). *A philosophy of computer art*. New York, NY: Routledge.

Lopes, D. (2001). The ontology of interactive art. *Journal of Aesthetic Education*, *35*, 65–81.

LucasArts. (1998). *Grim Fandango [PC game]*. San Francisco, CA: LucasArts.

Malaby, T. M. (2007). Beyond play: A new approach to games. *Games and Culture*, *2*, 95–113. doi:10.1177/1555412007299434

Manovich, L. (2002). *The language of new media*. Cambridge: MIT Press.

Maxis. (1989). *SimCity [PC game]*. Redwood Shores, CA: Maxis.

McMillan, S. J. (2002). Exploring models of interactivity from multiple research traditions: Users, documents and systems. In L. Lievrouw & S. Livingston (Eds.), *Handbook of new media* (pp. 162–182). London, England: Sage.

Nintendo. (2001). *HAL Laboratory. Super Smash Bros. Melee [Nintendo GameCube game]*. Kyoto, Japan: Nintendo.

Nintendo. (2017). *The Legend of Zelda: Breath of the Wild [Nintendo Switch game]*. Kyoto, Japan: Nintendo.

Perron, B. (2003). From gamers to players and gameplayers: The example of interactive movies. In M. J. P. Wolf & B. Perron (Eds.), *The video game theory reader* (pp. 237–258). New York, NY: Routledge.

Perron, B. (2005). A cognitive psychological approach to gameplay emotions. *Proceedings of DiGRA 2005 Conference: Changing Views—Worlds in Play*, *3*. Retrieved from http://www.digra.org/wp-content/uploads/digital-library/06276.58345.pdf

Perron, B. (2011). *Silent hill: The terror engine*. Ann Arbor: University of Michigan Press.

Rafaeli, S. (1988). Interactivity: From new media to communication. In R. Hawkins, J. M. Wiemann, & S. Pingree (Eds.), *Advancing communication science: Merging mass and interpersonal processes* (pp. 110–134). Newbury Park, CA: Sage.

Robinson, J. (2005). *Deeper than reason: Emotion and its role in literature, music, and art*. Oxford, England: Oxford University Press.

Rouse, R. (2001). *Game design: Theory and practice*. Plano, TX: Wordware.

Rozin, D. (1999). *Wooden Mirror*. [830 square pieces of wood, 830 servo motors,control electronics, video camera, computer, wood frame]. Retrieved from http://www.smooth ware.com/danny/woodenmirror.html

Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals*. Cambridge: MIT Press.

Saltz, D. Z. (1997). The art of interaction: Interactivity, performativity, and computers. *Journal of Aesthetics and Art Criticism*, 55, 117–127.

Sander, D., & Scherer, K. R. (Eds.). (2009). *The Oxford companion to emotion and the affective sciences*. Oxford, England: Oxford University Press.

Scarantino, A. (2016). The philosophy of emotions and its impact on affective science. In L. F. Barrett, M. Lewis, & J. M. Haviland-Jones (Eds.), *Handbook of emotions* (4th ed., pp. 3–48). New York, NY: Guilford Press.

Scherer, K. R. (2009). The dynamic architecture of emotion: Evidence for the component process model. *Cognition and Emotion*, 23, 1307–1351. doi:10.1080/02699930902928969

Sharp, J. (2015). *Works of game: On the aesthetics of games and art*. Cambridge, MA: MIT Press.

Smuts, A. (2009). What is interactivity? *The Journal of Aesthetic Education*, 43, 53–73. doi: 10.1353/jae.0.0062

Stenros, J. (2017). The game definition game: A review. *Games and Culture*, 12, 499–520. doi:10.1177/1555412016655679

Suits, B. (2014). *The grasshopper: Games, life, and utopia* (3rd ed.). Peterborough, Canada: Broadview Press. (Original work published 1978)

Tan, E. S. (1996). *Emotion and the structure of narrative film: Film as an emotion machine*. Mahwah, NJ: Lawrence Erlbaum.

Tavinor, G. (2009). *The art of videogames*. Malden, MA: Wiley-Blackwell.

Tavinor, G. (2011). Video games as mass art. *Contemporary Aesthetics*, 9. Retrieved from http://www.contempaesthetics.org/newvolume/pages/article.php?articleID=616

Tavinor, G. (2013). Videogames. In B. N. Gaut & D. Lopes (Eds.), *The Routledge companion to aesthetics* (3rd ed., pp. 565–574). London, England: Routledge.

Upton, B. (2017). *Situational game design*. Boca Raton, FL: CRC Press.

Wittgenstein, L. (1958). *Philosophical investigations* (4th ed., G. E. M. Anscombe, Trans.). Oxford, England: Wiley-Blackwell.

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