

---

# How do Frog Fractions and Nier use intertextual knowledge to subvert the player's expectations?

Rory Summerley

## **Introduction**

At first glance Frog Fractions (Twinbeard Studios, 2012) and Nier (Cavia, 2010) appear to be a fractions-based educational game and a Japanese role-playing game respectively. One thing these two drastically different games have in common is that they both set themselves up as standard entries in their respective genre and then utilise the player's intertextual knowledge of other games to establish an expectation which they then subvert using techniques that this essay seeks to define.



Figure 1. *Frog Fractions*' Title Screen

*Frog Fractions*' title screen (see Figure 1) is cheery and child-friendly which instantly connotes that the game will educate a young player about fractions. *Nier*'s setting is a magical fantasy world where the titular character, Nier, uses magic and swordplay to save the world from monsters known as "shades" evokes the various tropes of RPG plots.

One common feature of both *Frog Fractions* and *Nier* is they imitate a wide range of games and game genres and switch between them (a process I refer to as "genre shift") without any explicit reason other than to provide gameplay variety or to provoke the reader to question why they would do this. Given that we need intertextual knowledge to recognise an imitation of an original, subversion is the re-framing of the original in an interrogative light that we recognise by slight differences or imperfections in the imitation. *Frog Fractions* and *Nier* both assume implicit intertextual knowledge on the part of the player, therefore we can reason that their goals are to inspire fond memories

of the games they mimic or to figuratively pervert or deconstruct them. These genre shifts are signals that Frog Fractions and Nier may seek to examine either specific games or ideas surrounding games as a medium.

The techniques present in both Frog Fractions and Nier lead me to categorise them as parody which is important in establishing how subversion of expectations is achieved.

Parody, by its etymological definition, means “sung in imitation of another” (Rose, 1993). Imitation of the lexicon, style and syntax of a text coupled with its subversion is one of the key features of parody (Dentith, 2000; Harries, 2000; Hutcheon, 1985). When discussing parody Rose (1993) states that “the essence of humour has resided in general in raising an expectation for X and giving Y or something which is not entirely X” a process present in both Frog Fractions and Nier. Through intertextual knowledge, the quoted text and the parody are both connected in a player’s mind but the subversion is the point of disconnect where a reader “hears the parody sing”. While I consider both games parodies, they fit into two categories. The first, called “parody”, has the simple goal of imitating other texts in order to create comedy (Frog Fractions) (Rose, 1993). The second, “satirical parody”, imitates texts in order to criticise and/or deconstruct them (Nier) (Baym, 2009). In short, satire’s purpose is to provoke the reader into being critical of the quoted text whereas parody’s purpose is to playfully mock and entertain through reference to the quoted text. Both games use subversion but in different ways.

### **Frog Fractions**

Frog Fractions mostly subverts pervasively on a mechanical level often for the purpose of humour. Frog Fractions begins as a simple Missile Command (Atari Inc., 1980) clone. The goal of the game is to swat away insects with your tongue so that they do not devour your fruit. The score is counted in fractions yet doesn’t teach anything about them. At this point the player suspects the game’s subversive nature but still assumes that this Missile Command-esque paradigm

is all there is. Early clues are mostly parsed through the interface, for example the bar tallying the number of fruit lost is labelled “indignity”. These seemingly innocuous pieces of information play an important role in the player’s reading of the text. Baym (2009) suggests that while imitation is crucial to a parody’s success there also needs to be an “ironic corrective”, a signal to the reader (of appropriate intertextual knowledge) that what they are reading is indeed a parody. In both *Nier* and *Frog Fractions* the ironic corrective often takes the form of jarring genre shifts or familiar elements that have been perverted. The upgrade menu of *Frog Fractions* for instance, is when a player might first begin to suspect the game is not what they expected. Some of the upgrades available will be familiar, such as lock-on targeting, but many of the upgrades, such as a work visa, dance shoes or a presidential swimming pool, are non-sensical or hard to imagine given the game’s present context. Enticed to find out more, the player is clued into the fact that the game is either comical or eccentrically designed. After buying a turtle the player’s frog can move in any direction they please on the surface of their pond (see Figure 2). The adventurous player might try to move downwards and to their surprise they find that the previously solid boundaries of the game have been shattered as they dive down through the bottom of the screen into the pond (see Figure 3). The player happens upon a massive pile of fruit which has presumably accumulated from the player’s failed attempts to protect it from incoming mosquitoes. Touching the pile results in hundreds of fruit flying up and filling the player’s fruit counter until it reaches a vague estimate of “like a billion” (see Figure 4). This unusual turn of events signals the game’s first truly subversive turn from both a gameplay standpoint of crossing the boundaries of the screen and a mechanical perspective as the player can now buy many of the upgrades thought to be too expensive to purchase at the previous rate of fruit accumulation. This breaking down of rules continues throughout the rest of the game as it relentlessly shifts genre.



Figure 2. The player has purchased a turtle

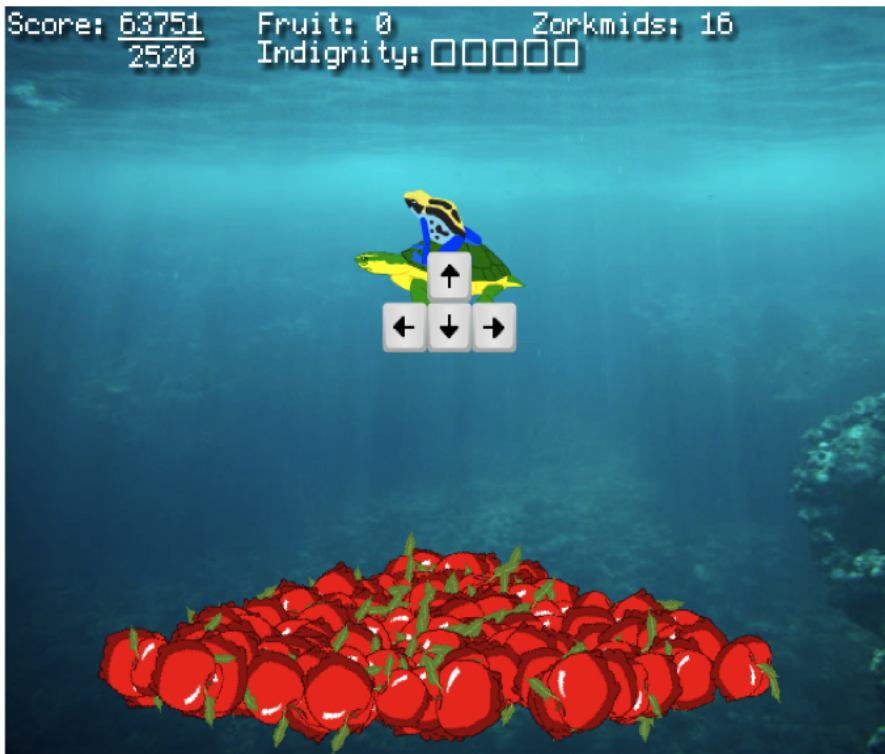
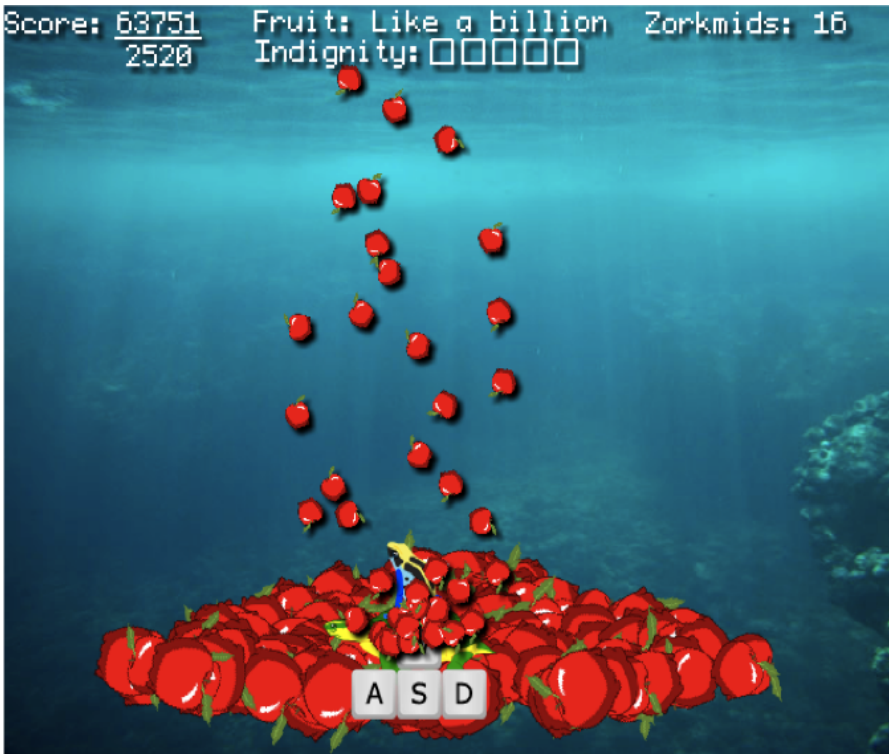


Figure 3. The player dives down into the pond to discover a pile of fruit



*Figure 4. After touching the fruit pile the player's fruit count rockets up to "like a billion" Nier*

Nier subverts expectations in similar ways but its subversions are generally subtler than Frog Fractions and its major subversive reveal occurs only towards the game's end. Nier begins in a snowy ruined city in 2049A.D. where the player sees Nier protecting his daughter from a group of "shades" which he defeats with a magical black book. The game then cuts to 1300 years in the future. Nier and his daughter Yonah are inexplicably alive and living in a village. Yonah suffers from a terminal illness which Nier seeks to cure by working as a bodyguard for the village. He soon comes across a white, talking book and takes it to the village caretaker who recalls a myth. The myth tells of a white book and its sealed verses saving the world from a black book which Nier surmises is the cause of his daughter's disease. This myth establishes an absolute dualism and serves as motivation for the player as they search for the sealed verses. At this

point only minor ironic correctives draw attention to the fact that Nier is not as straightforward as it first appears. Early on, Nier uses imitation and genre shift to hint at its subversive tone. A few of the many examples that imitate other games are a survival horror level set in a haunted mansion that uses fixed camera angles (a direct reference to the Resident Evil (Capcom, 1996), see Figure 5), a side-scrolling platforming section that takes place on ladder-laden scaffolding (a direct reference to Donkey Kong (Nintendo, 1981), see Figure 6) and, perhaps most famously, a “visual novel” section that is depicted entirely through text (see Figure 7). In order to read these examples as anything more than just changes of camera angle or coincidental quirks of gameplay, the player must possess the correct intertextual knowledge to identify these shifts in genre and interpret them as ironic correctives.

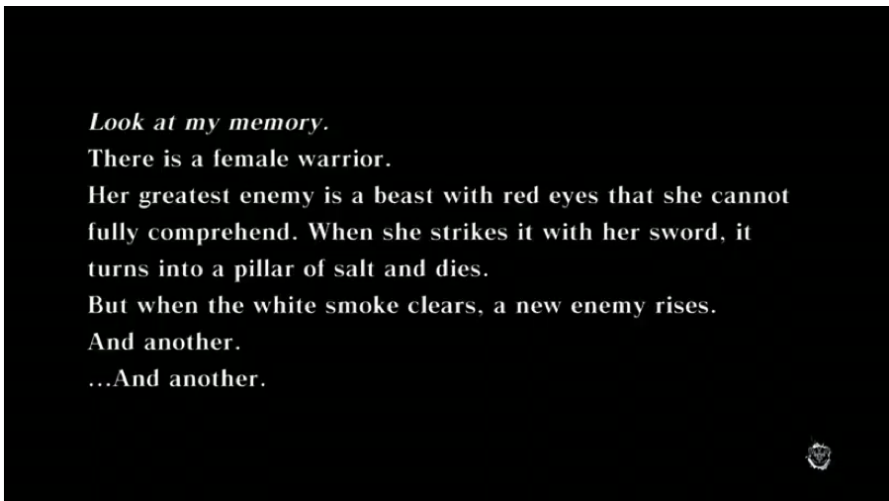


*Figure 5. Nier’s imitation of the original Resident Evil – Note the similar furnishing and fixed camera angle.*





*Figure 6. The Donkey Kong scaffolding and ladders can be seen on the bridge in the background whilst Nier engages in another genre shift, a tedious fishing minigame similar to the one present in The Legend of Zelda: The Ocarina of Time*



*Figure 7. A dream sequence in Nier represented entirely by text. This sequence does not specifically resemble any text-based game but it is still a striking example of Nier's genre shifts*

These mechanical shifts are backed up by the peculiarities of Nier's

narrative, another source of ironic correctives. At a glance Nier's plot superficially resembles that of series such as *The Legend of Zelda* (Nintendo EAD, 1986) where good and evil are in unambiguous conflict. Nier emulates this basic setup but changes aspects of it to create subversion. Again the key here is recognising the narrative paradigm which Nier subverts. The character of Nier acts selfishly and obsessively, his favourite topics being his daughter Yonah and killing things to protect her. He is a satire of single-minded and violent heroes that act as avatars in series like *The Legend of Zelda*. He has no qualms about his role ("I'm just a big guy who kills things") and his default solution to problems is to attack things until they die. His contradictory nature as selfless hero versus selfish murderer is shown throughout the game. The main antagonist, given the almost pantomimical title of "Shadowlord", is a dark version of Nier reminiscent of Link's dark self in *The Legend of Zelda: The Ocarina of Time* (Nintendo EAD, 1998). The Shadowlord kidnaps Yonah creating another clear parallel with *Zelda* which it subverts at the game's finale which I will discuss later.

### **Intertextuality and Subversion**

Frog Fraction's surreal narrative doesn't explicitly mirror any common game narrative but continues to subvert through its mechanics. After a brief hyperdrive trip and a courtroom interrogation (both genre shifts) the player finds themselves on Bug Mars. The game places the player back in a situation that resembles the first screen of the game but with a Martian aesthetic. Like the first screen, there is also a pool at the bottom of the screen that, due to the player's initial subversive dive, is likely to be tested. Instead of finding a shallow pool the player finds an elaborate network of underwater caves where a disembodied voice narrates a false history boxing. Eventually the player finds a spaceship where the next genre shift occurs and Frog Fractions becomes a text-based adventure game (see Figure 8). This is a rather archaic genre and one of the game's biggest challenges in terms of patience and problem solving. Here players recognise that Frog Fractions is definitely subversive and may adjust their expectations accordingly and so a guessing game begins.

Instead of trying to avoid a player's expectations Frog Fractions instead partially confirms what we expect and takes it further. We expect that diving into the second pool will reveal something but we do not expect a labyrinth coloured by erroneous boxing trivia. We expect a genre shift but not necessarily to the genre of text adventure and certainly not one that emulates the genre so competently! Text adventure is an interesting choice for a genre shift (also used in Nier (see Figure 7)) as changing from graphical representation to pure text is hard to overlook. It is one of the most explicit ironic correctives used by either game and puts forth the question of genre most obviously.

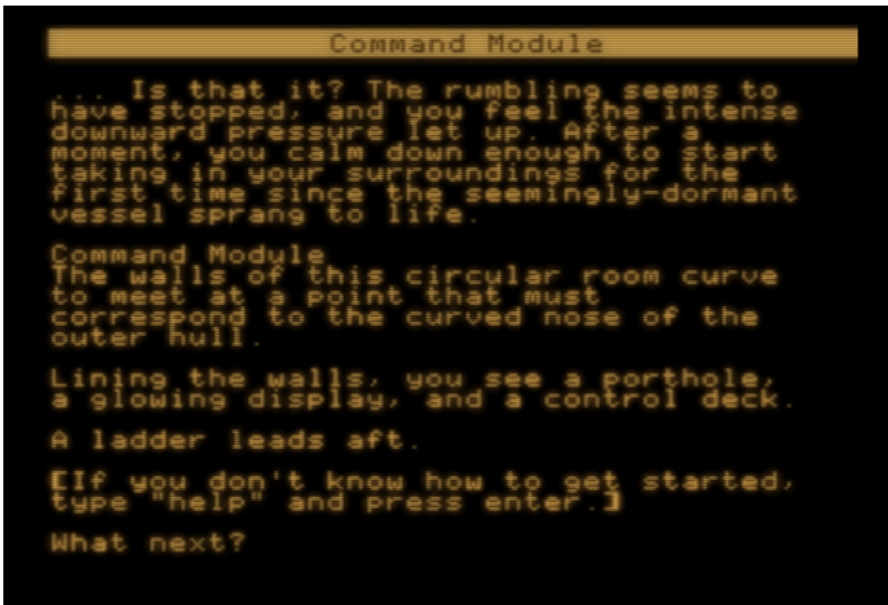


Figure 8 An example of the text adventure section of Frog Fractions

By making players laugh at an extreme, non-sequitrial rule change they are provoked into questioning whether a rule change is enough to constitute a genre and what does this mean for a game that constantly changes its rules. At one point in Nier, the player comes across Facade, a town governed by a ruleset of over 100,000 rules that govern them in complex and confusing ways. The justification the town's people give for their elaborate rule system is "Rules are not

there to bind you. They let you know your freedoms.” which eerily resembles the maxim of a game designer.

At Nier’s climax the narrative takes a U-turn as it transpires that all the shades the player has been killing are actually people who have been ejected from their physical bodies in an experimental project to avoid a disease that nearly wipes out humanity. Nier and other “humans” in the game turn out to be artificial vessels designed to house these souls but have since gained free will, slaughtering the remaining human/shade population. The Shadowlord is in fact the Nier seen in 2049A.D. now in soul form (Nier being his complementary vessel) and desiring to be reunited with his daughter by kidnapping Yonah. After murdering the Shadowlord, Nier obtains Yonah but at the cost of the human race’s extinction. To further this tragedy the player is then allowed to play through the game again with the shades’ dialogue revealed. While this is a rather simplistic “Train gambit”<sup>1</sup> (Koster, 2010) it’s important to note the narrative’s placement in the context of Nier’s other subversions as it is perhaps the best indicator of Nier’s intention.

At the end of Nier’s final playthrough the player is given a choice. Either kill the long-suffering Kaine, putting her out of her misery or sacrifice your own life so that she may live. The latter option deletes all saved data attached to the player’s profile making it so that the player can never play Nier again unless they restart from the beginning. This bold reference to the game’s software subverts the expectation of a noble sacrifice and is a technological “fourth wall brea” or “magic circle expansion” (Conway, 2009). Instead of Nier simply dying and the credits rolling while Kaine and Yonah

1. The train gambit is a reference to Brenda Braithwaite’s board game, Train (2009) (Koster, 2010). The game gives players the task of shuttling people back and forth along train lines, rewarding players who can cram as many passengers into the trains as possible. Towards the end of the game it is revealed that the trains are taking the passengers to Nazi concentration camps such as Auschwitz. While the game is subversive and thrusts the player into a role they are uncomfortable with, the game’s “twist” has been criticised as a simple contextual shift. The “train gambit” therefore is when a game deliberately withholds information in order to shock the player or subvert their role upon its revelation.

live on, the player must actually give up that which is considered most important to them and truly “die”. Their “save”, known in-game as a memory, is revealed to be the only thing that allows them to continue existing. By offering the player the chance to delete their progress the player has a chance at reversing genocide and admitting that they should probably just stop playing this game altogether. Throughout the game *Nier* (and by implication, the player) has had a morally questionable role, carrying out simple, repetitive goals without knowing or questioning the exact reasons why. The save delete is the ultimate subversion, uprooting the software itself to confront the player with the question of whether the 30+ hours they have just spent in the game have been worth it.

*Frog Fractions* has a similarly strange ending. Towards the end the player has been declared president of Bug Mars having won over the grand court by dancing. After buying the necessary unlocks the player is free to finally purchase and use the presidential swimming pool (see Figure 9). Calling back to the first and second diving-related subversions players may be curious to see what diving into this third pool may bring. Upon taking a peek at the bottom of the final pool the screen cuts to black and the credits roll in the same manner as the end credits sequence of *The Matrix* (Wachowski and Wachowski, 1999). At this point the game is running out of surprises in the race to outguess player expectations. A presidential Dance Dance Revolution (Konami, 1998-ongoing) competition is a point of levity, almost a reward for enduring the sensory deprivation of the text adventure. After this the player must play a saucy yet dull and unwinnable bug-porno economy simulator, perhaps in an effort to gently bore players into unlocking the final upgrade, the swimming pool. Having dived twice before, the player is now accustomed to testing the depths of any pools they come across. The first time we dive we encounter first real subversive gut-punch and it makes sense that *FrF* would end where it began to tie together the game’s principal focus and theme of discovery and surprise. Intertextually referring to *The Matrix*’s end credits<sup>2</sup> is both a joke and a means of tying a relevant piece of

2. At the end of *The Matrix*, the protagonist Neo is encouraged to figuratively descend into

media to Frog Fractions' own philosophy. By this point the game can subvert no further (or if it does it will fall prey to an endless paradox of self-parody) instead Frog Fractions tells players that they may venture down the rabbit hole but they can never be sure what they will find there. Their desire to literally travel downwards causes the game to end and for them to be ejected out of a virtual world, recalling Neo's final speech but in a comically unexpected fashion. The player's own curiosity, in lieu of playing to an expectation, is what eventually wins them the game.



*Figure 9 Frog Fractions' snazzy yet existential presidential swimming pool section*

the rabbit hole as a metaphor for his awakening to the true nature of the matrix, a virtual prison for humanity. He is prophesied to be “the one” who is able to control everything within the matrix. In the final scene of *The Matrix*, upon awakening as “the one” Neo re-enacts a phonecall scene similar to one at the very beginning of the movie except this time his new power changes the outcome by causing a “system failure”. He then flies into the sky at which point the film cuts to credits, playing Rage Against the Machine's “Wake up”. Frog Fractions, uses the same recalling of the initial scenes, theme of awakening and a different arrangement of the credits music as the film but in a characteristically more humorous way.

## Conclusion

I have demonstrated and explained the various ways in which Nier and Frog Fractions use parodic techniques to imitate and subvert. I have managed to single out three major ways in which both games achieve this:

1. The deliberately imperfect or distorted imitation of a game or game genre.
2. Self-awareness of common mechanical and narrative features of games and games as a medium (intertextual and metatextual references).
3. Ironic correctives, which do not subvert by themselves but do signal a subversive intent. (the most prominent of which are genre shifts)
4. Having defined “how” it is worth speculating further the reasons why these games aim to subvert in the first place and for this it helps to examine what each game’s core theme is.

Nier’s core recurring theme is communication (or the lack thereof) and media, particularly written and spoken language. The problems of communication are best examined when looking at the game’s genre shifts which directly reference the mutable, hybrid language of games. This Barthesian communication motif leads me to wonder if Nier may in fact be commenting on the “language” of games. The genre shifts seem to serve no purpose (other than ironic correctives) and when taken together with a narrative fraught with classically tragic failures to communicate, we arrive at a metatextual conclusion. Nier appears to be a satire not of common gameplay tropes but of the lack of communication that permeates the way we think about and read games and their narratives (ludonarrative dissonance for example). Game genres are riddled with vague definitions and genre hybridisation is so common that it seems fruitless to label anything

definitively. The example of *Façade* is one that explicitly uses ludic language and rules (an extension of language) to discuss games in a metatextual way. When creating games, designers lack a proper vocabulary and critics and theorists of the medium still have trouble figuring out how to talk about games, often borrowing language from other media studies and even more confusing are the new terms that are then mixed with the old (ludonarrative dissonance for example). This lack of common game language, from a Nierian perspective, should be a chance to celebrate the multitude forms a game can take rather than rigid definitional absolutism (reflected by the game's critique of dualism in the narrative). The genre of "role-playing game" alone is hard, if not impossible to define (Burn and Carr, 2006) and *Nier*'s mixed generic makeup and narrative suggests there is either no concrete answer or that seeking one is a futile task.

When designing *Frog Fractions*, Crawford (2012) expressed that his main goal was to replicate the joy of discovery that players found in games like *The Legend of Zelda* (Nintendo EAD, 1986) where very little was divulged to the player. He states that surprise is the key to *Frog Fraction*'s success to which I append that in order to surprise a player one must build up an expectation (as *Frog Fractions* does with its title screen) and then reveal the unexpected (dive into the pond). When recommending it to players, Crawford (2012) advises "don't sell it too hard", so as not to colour expectations of new players, which would ruin what the game relies upon for its success. Crawford (2012) even jokes that if he were to do a sequel to *Frog Fractions*, the most subversive thing he could do would be to actually build an educational game about fractions. In early 2014, Twinbeard studios actually went ahead to make a sequel to *Frog Fractions*, funding the game through Kickstarter (Twinbeard, 2014). The game's Kickstarter page is itself a parody of Kickstarters in general with surreal stretch goals and tonnes of fraudulent information about the game. Again, Crawford gives very little hint as to what the new game will be, maintaining the element of surprise. Crawford's (2012) intent of creating surprise is quite close to my own interpretative conclusions about *Frog Fractions*. *Frog Fractions* is obviously comedic with an anarchic sense of humour yet feels more like an experiment than a



game. The game features few hard fail states and Crawford (2012) argues that this is because the game is compelling in other ways (which it is) but Frog Fractions relies so much on surprise that it does not withstand repeat playthroughs and has trouble with the arms race of expectations that the game's design encounters towards the end. This leads me to believe that Frog Fractions is a comic rhetorical device that doesn't so much teach as it does expand the way a player might look at genre, expectation and hidden information.

Frog Fractions and Nier both put forth interesting questions about genre and how we experience games in terms of moment-to-moment gameplay, intertextuality and linguistics. For now I have examined how they do it through the technique of parody and in the future, further examination could be dedicated to exploring why Nier, Frog Fractions and similar games continue to use intertextual knowledge to subvert the player's expectations and the alternatives to a parodical reading.

## References

Adler, B. and Rodmna, G. (2000). *Understanding Human Communication*. 7th ed. Florida: Harcourt College Publishers.

Allen, G. (2000). *Intertextuality*. New York: Routledge.

Barthes, R. (1957). *Mythologies*. Paris: Editions du Seuil.

Baym, G. (2008). *Stephen Colbert's Parody of the Postmodern*. In Gray, J., Jones, J.P. and Thompson, E. (Eds.), *Satire TV: Politics and comedy in the post-network era*. (pp. 124-144). New York: New York University Press.

Burn A. and Carr, D. (2006). *Defining Game Genres*. In: Carr, D., Buckingham, D., Burn, A. and Schott, D. eds.,

*Computer Games: Text, Narrative and Play*. (pp. 14-29). Massachussets: Polity Press.

Caillois, R. (1962). *The Definition of Play: The Classification of Games*. In: Salen, K. and Zimmerman, E. eds., *The Game Design Reader: A Rules of Play Anthology*. Massachusetts: The MIT Press. 122-155.

Carr, D., Buckingham, D., Burn, A. and Schott, D. eds. (2006). *Computer Games: Text, Narrative and Play*. Massachusetts: Polity Press.

Conway, S. (2009). *A Circular Wall? Reformulating the Fourth Wall for Video Games*. [Retrieved from [http://www.gamasutra.com/view/feature/4086/a\\_circular\\_wall\\_reformulating\\_the\\_.php](http://www.gamasutra.com/view/feature/4086/a_circular_wall_reformulating_the_.php)]

Corman, B. (1993). *Genre and Generic Change in English Comedy. 1660-1710*. Toronto: University of Toronto Press.

Crawford, J. (2012). *Frog Fractions Developer's "Shameful Secret" and Like a Billion more details*. Interviewed by John Polson. Retrieved from [http://indiegames.com/2012/10/frog\\_fractions\\_developer\\_like\\_.html](http://indiegames.com/2012/10/frog_fractions_developer_like_.html)

Dentith, S. (2000). *Parody*. New York: Routledge.

Gray, J., Jones, J.P. and Thompson, E. eds. (2009). *Satire TV: Politics and comedy in the post-network era*. New York: New York University Press.

Harries, D. (2000). *Film Parody*. London: British Film Institute.

Hearthey, E. (2001). *Postmodernism*. London: Tate Publishing.

Hutcheon, L. (1985). *A Theory of Parody*. New York: Methuen Inc.

Jameson, F. (1981). *The Political Unconscious: Narrative as a Socially Symbolic Act*. UK: Methuen Inc.

Koster, R. (2010). *A Theory of Fun 10 Years Later*. Retrieved from <http://www.gdcvault.com/play/1016632/A-Theory-of-Fun-10>

Laird, J.E. and van Lent, M. (2001). *The Role of Artificial Intelligence in Computer Game Genres*. In Raessens, J. and Goldstein, J. (Eds.), *Handbook of Computer Game Studies*. (pp. 205-218). Massachusetts: MIT Press.

Meyer, J.M. (2010). *Square Enix's Nier Combines Fighting, Farming*. Retrieved from <http://www.wired.com/gamelifelife/2010/03/nier-interview/>

Neale, S. (1980). *Genre*. UK: Jason Press.

Napolitano, J. (2010). *Deep into Nier: Interview with vocalist and lyricist Emi Evans*. Retrieved from <http://www.originalsoundversion.com/deep-into-nier-interview-with-vocalist-and-lyricist-emi-evans/>

Newman, J. (2004). *Videogames*. NY: Routledge.

Polson, J. and Rose, M. (2012). *Frog Fractions and 'the joy of discovery'*. Retrieved from [http://www.gamasutra.com/view/news/180554/Frog\\_Fractions\\_and\\_the\\_joy\\_of\\_discovery.php](http://www.gamasutra.com/view/news/180554/Frog_Fractions_and_the_joy_of_discovery.php)

Raessens, J. and Goldstein, J. eds. (2005). *Handbook of Computer Game Studies*. Massachusetts: MIT Press.

Rose, M.A. (1993). *Parody: Ancient, Modern and Post-modern*. New York: Cambridge University Press.

Salen, K. and Zimmerman, E. eds. (2006). *The Game Design Reader: A Rules of Play Anthology*. Massachusetts: The MIT Press.

Twinbeard. (2014). *Frog Fractions 2 Kickstarter*. Retrieved from <https://www.kickstarter.com/projects/475057068/frog-fractions-2>

Wolf, M.J.P. (2001). *Genre and the Video Game*. In: Raessens, J.

and Goldstein, J. (Eds.), *Handbook of Computer Game Studies*.  
(pp.193-204). Massachussets: MIT Press.