Emotion in 1080p: The Gamer as Semiotic Index in Single-Player Games

Games, while seeming to privilege their audiences in ways that books and other more "passive" media do not, in effect situate the gamer in a potentially vicious semiotic circle. The great narratology/ludology debate hinged around questions of simulation as a more "emergent" form than established modes of narrative theorized by Chatman and Genette, now the theoretical foundations for narratology. The concept has taken hold, particularly in the gaming market, that games allow the gamer more "freedom" than other, more traditional forms. But is this really the case? A number of scholars, like Thomas M. Malaby, have more recently interrogated the limits of interactivity. Less explored are the structures by which games use their interactivity to signify meaning. Gamers have to deploy multiple, sometimes contradictory, models of reception in the most basic games, depending on the relationship between gameplay mechanics and the visual and auditory components, whether cinematic or simulational. The move toward high definition presentations and the increasing blur between cinematic and simulational forms largely establishes the gamer as a part of the architecture of the simulation by exposing the gamer to a more and more emotional and psychologically visceral experience. Single-player designs pose as spaces in which the gamer and the developer(s) seem to negotiate over the meaning expressed by that space. Yet, the real space for expression is the gamer, always situated as a functional verb in the expression's dialectical chain—used by the developer to establish some of the causal threads woven into the game's design.

For literary studies especially, such a development continues to raise questions and force scholars to reevaluate the critical fronts of mediation and semiosis that have never seen much peace to begin with. The critical junctures at which literary theory always finds its deepest crises

are in the expression of the medium itself—essentially language as an interface. Jon Saklofske puts the situation this way:

> Literary scholarship and modern fictions have been neurotically attentive to the capabilities and limitations of language as *interface* or *medium* between authors and readers. An interface can be understood as signifying a point of communication and contact, a shared surface, but also a common boundary between independent, adjacent elements. Contemporary usage of the term suggests successful linkage and transfer across boundaries while reminding us of such boundaries and of the necessity of intermediary components. Similarly, in relation to communication, the word *medium* signifies an intermediate (as opposed to immediate) means to the end of moderated understanding. (Saklofske 136)

Postmodernism is generally credited with putting the construction of meaning in the reader's camp, culminating with Reader-Response Theory. Yet, this argument has remained always already engaged in a theoretical space, manifesting primarily in varying models of readership that have flooded both English Studies over the last several decades, as well as broader media and communications theories. Written texts are now encapsulated in the intellectual meme that they are, to varying degrees, impenetrable beyond either their artifactual selves or beyond their contextualizations. The fundamental challenge now is that a game text gathers an agency all its own instead of suffering only as the target of the agency of the interpreting subject, whether developer or gamer. Thus, a game establishes an ever shifting set of semiotic problems because of the transitivity of the medium, relying on the convergence of simulational and narrative architectures, often in real-time interaction.

One method to further our understanding is to examine some of the formal aspects of a game's presentation to include not only the interface systems as formal architectures in their own right, but also the fidelity and representational quality of the presentation, as well. Games sit at the forefront of technologies that devise a hyperreal semiotics, manipulating perception within remediated environments that pose as hyper-mimetic presentations using high definition visuals and audio, while also exposing their interface properties via gameplay mechanics. Combined with the nature of ergodic design, these elements establish at least two levels of semiotic interaction. The first and most basic is self-reflexive, relying on encoded links between icons and gameplay options. This layer of semiotic development establishes an ergodic consequentialism that demands a mastery of the semiotic code to more smoothly interact with the text itself. From a non-diegetic perspective, games seek to establish a literacy of their interface systems that often masks a deeper literacy of the gaming artifact as a cultural expression. Thus, the second semiotic layer is a discursive relationship between the game as a cultural artifact and the audience(s) that need not be structurally tied to a pure understanding of the first semiotic layer, particularly with audience members directly manipulating the diegetic space. Cutscenes in some games attempt to tie these semiotic layers together, turning the gameplay from basic action into narrated experiences.

The Semiotic Index versus the Gamer

Consalvo and Dutton's "methodological toolkit" for studying games includes some discussion of the interface. They argue that the interface is a crucial element in the critical examination of the gaming experience:

> Examining the interface (and going beyond elegance of design or ease of use) lets researchers determine how free players are to experiment with options within a

> game. Alternately, it can help us see what information is privileged (is a running "score" always present onscreen-indicating its importance? How is "life" or "health" represented?) and what information is absent or difficult to find. Examining the interface also exposes the consequences of choices, such as developing a character along one skill path but not another; and also helps determine what the game developers have deemed essential (as well as non-essential) aspects of gameplay. (para. 18)

Health meters, ammunition counts, monetary counts, and even emotional levels are gauged and deployed within the simulational space for the purpose of working towards a goal by defining those goal(s) and the tools necessary for achieving them. Synthesized with Saklofske's assertion above of text as an "interface", we can sketch a picture of a game's semiotic layers and a preliminary theory of how those layers interact.

The interfacing quality involves more than the heads-up-display that games employ as a means for gamers to track relevant data necessary for developing and perpetuating a successful experience within the ergodic space. Texts-as-interface articulates textuality as a common space within which discourse takes place, but also restricts traditional textual functions into no more than a set of tools, devoid of independent operation:

> The purpose of the interface is to represent the data, the dataflow, and data structures of the computer to the human senses, while simultaneously setting up a frame for human input and translating this input back into the machine. [An interface] is generally a dynamic form, a dynamic representation of the changing states of data or software and of the user's interaction. (Pold para. 8)

These functions in printed texts are linked to always already reconstructed meanings contingent on any number of contextual factors as they are filtered through users. The language component of printed media creates an unstable relationship among the participants and their chosen intermediary because the links between sign, signifier, and signified are not stable, but depend on pragmatic assertions of contextual connections. In the postmodern sense, the text itself becomes more than a simple interlocutor, but also a point in which meaning is constantly at play due to inherent structural vagueness. Written texts "work" in a sense, but without any definitive teleology, and always at the mercy of the cultures in which they are deployed. Yet, in an ergodic environment, the interface works to reduce this semiotic vagueness by making the "language" of the interface static, at least as far as the game data are concerned. A computer application is designed to run only in a certain way and with certain programming languages. Inputting anything the software is not designed to understand will only result in an error, and thus no output. The data received by the gamer monitor the actions and results of a set of rules that are constant in the simulation—these rules do not change unless the game code is flawed, the gamer "cheats" on purpose, or the alterations are built into the experience. The latter would seem a problem here, but the shift is programmed and predictable, replacing one set of rules with another that can be learned and navigated the same as the first.

For games, the interface becomes something of an active subject by imposing a rule set on a virtual environment, and in more sophisticated examples games react to gamers' choices—as much as gamers play, they are also played by the game (Saklofske 136). Saklofske notes that *Grand Theft Auto: San Andreas* "ironically appears to encourage a player's freedom and agency while disabling the same through restrictive subject positions and immersive play" (136). The very tools seeming to encourage a gamer's agency and capability within the simulation also limit

her abilities, and thus limit the game's semiotic potential. All a gamer can really do is control an avatar in a virtual world, perhaps triggering certain events or points that further develop the characters in prescribed ways. For instance, Niko Bellic's personal history before *Grand Theft Auto IV*'s start is fixed within the text, but certain choices, and thus the history written by the gameplay, are not.

Malaby argues for treating games as a cultural "process": "One of the first things we must recognize is that *games are processual*. Every game is an ongoing process. As it is played, it always contains the potential for generating new practices and new meanings, possibly refiguring the game itself" (102; emphasis in original). But even Malaby's understanding is problematic in this equation if videogames are understood as much more limiting than the initial promise of virtual reality in the late Twentieth Century. He's right that the "processual" component of games is important to understanding games. But, the processuality of a game helps to mask the limits imposed by games noted by Saklofske above. Take for example this review for *Grand Theft Auto IV*:

> If you thought that the previous Grand Theft Auto titles [sic] offered an amazing level of freedom, you haven't seen anything yet. In Grand Theft Auto IV, you really fell like you have ownership over the entire experience. You build relationships, approach missions the way you want to, and even dictate the flow of the story. [...] This isn't like Fable or Mass Effect [sic] where you can clearly see how your input is affecting the story. You just have to live with it, swallow hard, and hope you made the right choices. (Reiner 92)

The "right choices" the reviewer is referring to are the "live-or-die" moments. But, the real development from the scene is dictated by the code programmed into the game. All the gamer

can do is choose whether someone lives or dies; the code determines how the rest of the story will play out—ontology is programmed.

Niko Bellic's choices in *Grand Theft Auto IV* are not just dictated by the story and how the gamer wants to develop the character, but also by the rules of the simulation. He cannot take a non-playable character out to dinner unless the software is programmed to allow such an action, and the ability to do so is limited by the information displayed in the interface itself. For instance, it would be a bad idea in terms of gameplay to start a gunfight without enough ammunition to adequately pursue the goal. Thus, before embarking on a mission, the gamer might decide to find critical ammunition supplies in any of a number of ways. Niko can buy ammunition, pick it up from weapons lying around Liberty City, or even input a cheat code to miraculously develop ammunition from the digital ether. The gamer's choices are predicated on her knowledge gained from the interface and knowledge of the rule set afforded by the software.

The critical point to take away from *Grand Theft Auto IV* is that any meaning here can reflect in two directions at once because the text is interactive (simply meaning the audience can manipulate and alter the artifact itself). First, for the gamer to have a meaningful experience with the text, she simply has to find some reason to see the choice and the action (execute someone or not) as compelling. Because ergodic domains can make this moment an interactive one, they highlight, through the gameplay, a cause/effect perception of the events. Yet, emphasis on gameplay sometimes does not allow for a moment of critical reflection because of the limitations in choice. Instead, the internal consequentialism in the first semiotic layer turns the causal relationships into a series of obstacles to be negotiated for victory. Meaning in this layer can be left as nothing more than the process articulated by Malaby, a system to be negotiated and mastered for the purpose of driving the gameplay forward, or *perhaps* the story attached to the

game world. Games become, at this level, something akin to a spreadsheet application: receiving input, running a calculation, and then providing feedback.

This level of semiosis pulls the audience(s) attention back into the spectacle of the presentation by devaluing the broader hermeneutics of meaning construction, creating the broad gulf over narrativity across which narrative theories and ludic theories have argued for a number of years. As processing power in gaming hardware improves, the move toward more and more spectacular visual and audio experiences simply pulls attention back to the presentation without any critical consideration of the text beyond the first semiotic layer, and simultaneously evokes a more and more visceral experience. To *play*, the gamer must *react*, and the intensity of that reaction can often be directed by the intensity of the experience. Surround sound and the intense 3D visuals available from current hardware can evoke non-diegetic reactions mirroring movement on screen. Think of the gamer who leans into a turn, or who might duck from the sound of a gunshot. The demand for reaction hides the rhetorical nature of games by impressing the gamer into an emotional experience that does not demand an intellectual reflection due to the fidelity of the diegetic image to the real: "the 'uncanniness' of the computer animations in question is predicated on their being perceived as *simultaneously* highly naturalistic/transparent *and* hypermediated/opaque; this combination seems to be central to their allure" (Ward 131-32; emphasis in original). The gamer is situated as an index within the signification of the gaming experience—a product of the meaning manifested as a point of action. Broadly speaking, both narratology and ludology have been right all along: games both tell stories and they do not tell stories. Much of this process depends on the gamer's willingness to move beyond the first semiotic layer and engage with the second semiotic layer. Many gamers are not, hence the now

ubiquitous choice of skipping cutscenes and the rise in online multiplayer experiences, the latter now a standard in any first-person shooter.

In essence, gaming *seems* to demand that the gamer engage in a negotiation over both objectivity and subjectivity in the dialectic of an ergodic space. To extend the grammatical metaphor, the gamer is firmly situated within the verb layer of expression. After all, a simulation's rules are defined by developers. Simulation in a game means simulating not just certain events and people, but a space's ontology and physics, as well. Reading a book demands the reader bring some model of interpretation into the experience, no matter how simple or sophisticated. A game, on the other hand, does not demand that the audience employ any interpretive hermeneutics beyond the willingness to act within a rather rigid set of rules. Thus, the gamer only acts as a subject or object of the expression if she chooses to extricate her experience in some fashion from the first semiotic layer.

However, within the first layer, the gamer is but an index, a signifying extension of the diegetic action. The semiotic index was defined by Charles Sanders Peirce as "a sign which refers to the Object that it denotes by virtue of being really affected by that Object" (143). Discussing Peirce's semiotic triad (symbol, icon, index), Arsenault and Brinkley argue "a symbol or icon requires interpretation to be meaningful--regardless of any referent--whereas an index is meaningful regardless of interpretation" (para. 24). The relationship between the index and that which it signifies is founded upon an ontological reflection from one to the other: "Anthing which startles us is an index, in so far as it marks the junction between two portions of experience" (Peirce 161). If the object being signified undergoes a state of change, then the index must immediately reflect that state of change, as "A sundial or a clock *indicates* the time of of day" (161). A gamer's emotive reaction to a gaming experience is predicated largely (though

not entirely) upon a mastery of the game's controls and interface systems, regardless of the visual veneer painted over the interface. From an interface standpoint, what is the radical difference between a space marine fighting aliens and a special forces operative fighting a more earthly enemy? With respect to interface design, the setting of a gaming scenario need not dictate dataflow, though game developers are becoming increasingly aware of how interface systems might be more seamlessly built into the scenario. Thus, both the interface elements and the gamer become indexes functioning within the gaming expression and allowing for input back into the software to effect an outcome. The first semiotic layer is indexical by nature, as it is purely functional.

Increasingly photorealistic graphics want to heighten the empathetic connections between gamers and gameplay. What one can do in a virtual space depends entirely on the abilities programmed into the software. Maybe we can say that critically "successful" games establish an internal logic deeming the programmed capabilities all that is necessary and desirable to the gamer. These capabilities can be as simple as moving rudimentary geometric shapes to fit into various spaces and patterns (*Tetris* and its puzzle game cousins), or they can be as complex as the various abilities afforded to gamers in larger mainstream titles like the *Grand Theft Auto* franchise, *Metal Gear Solid 4*, or any number of role-playing games. And those capabilities must work as the ergodic context defines they should. For instance, if a gamer shoots an enemy character in the head and he gets up as if nothing happened, the simulation breaks its own rules and violates the first semiotic layer if the gamer's assumed casual chain has been enacted without fail. The reason these experiences matter is because the ludic component is a portion of the text itself, thus the gamer becomes a layer of the text in the form of an avatar. Games demand action so that the gamer's choices and how the game reacts to those choices

simultaneously constitutes the text and one's experience with that text. The signs and signifiers of the text are not purely the imagery or interfacing components built into a game, but constitute a relationship between the interfacing tools and the action as it develops both on-screen and off, incorporating concerns with the control apparatus at the gamer's disposal. Since games demand action, the action itself becomes a sign that signifies the gamer's choices back into the virtual space.

Interactive "freedom" is nothing more than a marketing term. What matters with respect to agency is not the breadth of functions allowed to the gamer, but their utility within the game and the connection of that utility to the represented details of the virtual world. The "freedom" mentioned in the review points to a problematic linguistic construction concerning how we approach literacy with respect to ergodic expressions. They are not the manifestations of the ideal virtual domain that Marie-Laure Ryan describes in *Narrative as Virtual Reality* or of Janet Murray's "holodeck" concept. We must come to recognize that simulations are rules-based processes, and do exert a sense of control over meaning. The gamer becomes an extension of these processes, the functional node that allows a process to develop all its possibilities; but those possibilities are finite. The second semiotic layer often only masks these processes by infusing them with a layer of fantasy: space marines and aliens, terrestrial marines and middle eastern terrorists, or even Palestinian fighters taking on western occupation. The true negotiation happens between the first and second semiotic layer: how does a gamer pull herself out of the emotional experience and assimilate the signification(s) of the presentation?

The Cutscene as Mediator

Cutscenes attempt this negotiation in several different ways. Cutscenes that are firmly separated from gameplay mechanics are usually triggered at fixed points, once the gamer has met

a certain goal. The cinematic presentation does not often touch on the particulars of the gamer's action in a certain spot or level, but usually only on the goal for that level. The rise of the interactive cutscene has usually sought to cinematize action and gameplay, rather than turn narrative into a set of branching choices. Still, a minority of games mechanize traditional narrative elements like dialogue and emotional development. Cutscenes are meta-ludic moments, exposing the rift between these semiotic layers, and sometimes attempting to reconfigure the interface systems into more cinematic features.

Metal Gear Solid 4's use of button-mashing in its final act to make Snake crawl through heavy radiation is just one example. The "life" and "psyche" gauges are functionally only time limits that decay at a steady rate. The gamer has to make it to the end of the corridor before the gauges are fully depleted. Kojima Productions makes an interesting design choice in the presentation, though. This gameplay scenario plays out in a side-by-side presentation of the gameplay scenario alongside a cutscene depicting other characters as they fight to protect Snake from enemies who are trying to stop him. Snake's allies are beaten and wounded in grotesque ways, relayed through vivid graphical and auditory detail. The attempt here is to elevate the interface into something more than a timing mechanism, that it should reflect something about Snake's "life". If the gamer fails to achieve the goal, the reaction the game seems to hope for is "Snake died" rather than "time ran out". The effect then is to turn the signification of the first semiotic layer into that of the second semiotic layer by turning the functionality of the interface also into a representation of an emotional abstraction. We see Snake as human because *Metal Gear Solid 4* constantly shows the battered and injured Snake as his body deteriorates, relying on a basic empathetic connection to such a state of existence.

Yet, the effect is continuously recursive. While the interface can be understood to represent more than a time limit, any success means the emotional impact is implicitly structured as a gauge, and thus becomes more a quantitative measure that reduces the emotional metaphor to a functional process. The implications concerning how interface systems represent the human condition as mechanized and sortable data are clear, positing a form of "realism that simultaneously engages in illusion and is a self-reflexive exploration of its own representational techniques and media" (Pold para. 20). Such is the case with *Metal Gear Solid 4*, since its major theme is an exploration of humanity as it relates to increasingly nodal exchanges of digital information. Snake is a clone, the end result of a biological process formulated through specified rules, removed from the contexts of "what it means to be human" and into the sterile environs of a lab. Thus, Kojima Productions is able to turn the interface's first semiotic layer into an important component of the second semiotic layer, using the structural properties of interfaces in games as a commentary upon the increasing digitization of human life into the strict rules of processes and programs.

The relationship between these semiotic layers is always ripe with significant potential. But understanding how they are structurally removed from each other exposes a need to interrogate how they operate in various game genres, with various game designs, and to evaluate both their potential and limits. The gamer's function within the liminal space between these layers does allow one layer to mask the other, creating a number of critical questions with respect to literacy in games and other interactive media as cultural expressions. For instance, the question about violence in games has always centered on transgressive representations like *Grand Theft Auto*, yet rarely do they focus on monomythically driven games like the *Call of Duty* franchise. *Call of Duty 4: Modern Warfare*, while an immensely entertaining game, can

and should be interrogated as an important text within the current Western meme of terrorism and preemptive warfare. The game can be understood as fixing some of the same cultural cache from its World War II-themed predecessors into the modern geopolitical context through its design elements, including its interface systems.

Works Cited

Arsenault, Joseph and Tony Brinkley. "Toward an Indexical Criticism." *Postmodern Culture* 5.3 (1995): 70 pars. Project Muse. Old Dominion University Libraries, Norfolk, VA., 13 September 2008. <http://muse.jhu.edu.proxy.lib.odu.edu>.

Consalvo, Mia and Nathan Dutton. "Game analysis: Developing a Methodological Toolkit for the Qualitative Study of Games." *Gamestudies* 6.1 (December 2006): 40 pars. 13 September 2008 <http://gamestudies.org/0601/articles/consalvo_dutton>.

Kojima Productions. *Metal Gear Solid 4*. Konami. 2008.

Malaby, Thomas M. "Beyond Play: A New Approach to Games." *Games and Culture* 2.2 (2007): 95-113. SAGE Publications Online. Old Dominion University Libraries, Norfolk, VA., 17 August 2008. <http://gac.sagepub.com/cgi/content/abstract/2/2/95/>.

Murray, Janet. *Hamlet on the Holodeck*. New York: Free Press, 1997.

Peirce, Charles Sanders. *Collected Papers of Charles Sanders Peirce: Volume II: Elements of Logic*. Eds. Charles Hartshorne and Paul Weiss. Cambridge, MA: The Belknap Press, 1965.

Pold, Soren. "Interface Realisms: The Interface as Aesthetic Form." *Postmodern Culture* 15.2 (2005): 43 pars. Project Muse. Old Dominion University Libraries, Norfolk, VA., 3 Sept. 2008. <http://muse.jhu.edu.proxy.lib.odu.edu>.

Rockstar North. *Grand Theft Auto IV*. Rockstar Games. 2008.

Ryan, Marie-Laure. *Narrative as Virtual Reality: Immersion and Interactivity in Literature and Electronic Media*. Baltimore and London: The Johns Hopkins University Press, 2001.

Saklofske, Jon. "Thoughtless Play: Using William Blake to Illuminate Authority and Agency Within Grand Theft Auto: San Andreas." *Games and Culture* 2.2 (2007): 134-48.

SAGE Publications Online, Old Dominion University Libraries, Norfolk, VA., 29 July 2008. < http://gac.sagepub.com/cgi/content/abstract/2/2/134>.

Ward, Paul. "Videogames as Remediated Animation." *SreenPlay: Cinema/Videogames/Interfaces*. Eds. Geoff King and Tanya Krzywinska. London: Wallflower Press, 2002. 122-35.