Feel It, Don't Think: the Significance of Affect in the Study of Digital Games

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ABSTRACT
Game studies methodologies which focus on the visual, narrative, and semiotic content of digital games overlook the way that embodied perception and physiological response contribute to the meaningfulness of games. Gameplay also needs to be understood in terms of affective response: the embodied, multisensory perception of the game environment. Distinguishing between affect and emotion, this paper frames the former in terms of the unquantifiable bodily dimensions of gameplay – the 'feel' of a game. It argues that affective response incorporates physiological and temporal dimensions that lie outside the domain of linear time and conscious choice, using examples of games like *Rez* that link positive player experience to bodily awareness and uncontrollable biological responses. It then proposes some ways that a theory of affect can further our understanding of what digital games are and why people play them.

Keywords
Affect, emotion, interactivity, physiological response, embodiment, theoretical perspectives, research methodologies.

It's hard to believe that *Battlezone* once represented the state of the game designer's art. In the 25 years since the game first appeared, crude wireframe graphics have given way to smooth animations and lavishly detailed gameworlds; today's video games resemble movies more than they do the real world. The rapport between digital games and motion pictures has had a knock-on effect on game studies methodologies, many of which rely on visually-biased, semiotic, or narrative approaches. No matter how spectacular the graphics, however, playing a videogame is nothing like going to the cinema, and there are signs that the industry's obsession with visual effects is starting to wear a bit thin:

> Without taking the 'joy' out of the joypad, it hasn't really changed much. … graphics are not as important as they once were. A revelation in hardware could be just as important as visual finesse. [7]

Players, it seems, are eager for a more physically captivating experience, and game studies methodologies need to keep pace with this shifting focus. Games are not movies, nor are they simply stories, and approaches to gaming and interactivity remain incomplete if they operate

Proceedings of DiGRA 2005 Conference: Changing Views – Worlds in Play.

only on the semantic or semiotic level, 'however that level is defined (linguistically, logically, narratologically, [or] ideologically).' [10] More to the point, such models 'may seriously impede descriptions of those media like video games that rely on a series of nonverbal skills.' [8] Methodologies based around conventional representational, linguistic or literary strategies overlook the role of concrete perceptions and motor patterns in generating meaning.

The rush you get from a good game is a subrational, bodily thing, involving phenomenological or *affective* dimensions which cannot be programmed into a game. Affect is key to the perception of images, and to the notion of meaningful interaction with them. It is especially significant in the experience of digital gameplay, which relies upon the user's physical input; indeed, digital games are almost totally dependent upon affective factors in providing a positive user experience. What is lost in conventional game studies methodologies is precisely this sense of gameplay, and image perception more generally, as an *embodied event*.

Affect is a complex idiom, and the following discussion examines some of the ways that we might think about the term and its various meanings. This is not an empirical study, but a preliminary examination of the possibilities of a theory of affect and embodied perception within the field of game studies and visual theory more generally.

WHAT IS AFFECT?

Bentley et. al. describe affects as the 'emotional factors' that motivate individuals to play games, and list beauty, aesthetics, enjoyment, and fun as possible affective factors [3]. However, these qualities are notoriously tricky to measure and even more difficult to design into a game – a fact that is acknowledged by researchers in the field [2], [6]. Other researchers have examined fear as a form of affective response. Carr has shown how the conventions of cinematic horror are used to generate fear in games like *Silent Hill* and *Planescape Torment* [4]. Cinematic fear, however, is always counterpoised by the viewer's distance from the action. Movies can't threaten you with real-world consequences, but games can, and by all accounts this should make them even more frightening. As a recent article in *Edge* points out, however, there is a fine and by no means easily drawn line between genuine fear and simple frustration. The authors point out that 'games that want to capitalize on their ability to hurt you in the real world can only do it by threatening loss of progress and repetition.' [14] The anxiety you feel in games like *Resident Evil* or *Project Zero II* often has more to do with finding a save point than it does with the spooky atmosphere or the circumstances of your character – what you're feeling is more likely to be performance related panic rather than real, visceral fear. When it comes to emotion in games, in other words, it's difficult to say with precision *what* the player is feeling, let alone measure it objectively.

Frustrating as this indeterminacy may be for researchers, it is key to understanding the nature of affect, which goes beyond the expression of particular emotions. According to Massumi, affect (or intensity, as he also terms it) never surfaces in socioculturally legible form. It is given communicative existence in the form of emotions but its essential consistency is entirely different. Emotions, as he remarks, are back-formed; they represent

> the sociolinguistic fixing of the quality of an experience which is from that point onward defined as personal. Emotion is qualified [affect], the conventional, consensual point of insertion of intensity into semantically and semiotically

> formed progressions, into narrativizable action-reaction circuits, into function and meaning. [10]

Affect is synaesthetic, embodied perception. It is a full-body, multisensory experience, temporally and corporeally delocalized, incorporating emotions but not reducible to them. Affect is a way of approachingt the 'feel' or intensity of a game, and refers to the *unquantifiable* features of gameplay – those phenomenological aspects of interactivity that are difficult to describe or to model theoretically, but which nonetheless make a game come alive.

Grodal conceptualizes gameplay in terms of story perception. Videogames, as he explains, are built around the perception of 'stories' – sequences of events based on simulations of experiences in which there is 'a constant interaction of perceptions, emotions, cognitions, and actions.' [8] Aarseth's concept of games as 'ergodic literature' – texts which require 'nontrivial and extranoematic' effort on the part of the reader – works a similar angle [1]. Both understand gameplay as a combination of diegetic and extradiegetic activity. Player activity, in other words, comprises both psychological and physiological responses, and involves two feedback loops which interact on complex levels. The diegetic loop refers to the player's conscious interaction with an immediately responsive graphical and narrative interface. The extradiegetic loop involves the player's corporeal response to the gaming environment as a whole. Semantic distinctions aside, these two loops cannot be teased apart in practice – affect should not be understood as a kind of 'primitive' response that acts in concert with more sophisticated levels of awareness. Functions such as volition and cognition, argues Massumi, participate in the formation of affective response, and the latter, in turn, feeds back into the domain of conscious experience:

> Higher functions belonging to the realm of qualified form/content … are fed back into the realm of intensity … [Affect] *includes* social elements but mixes them with elements belonging to other levels of functioning and combines them according to a different logic. [10]

Traces of past actions, events, and contexts are conserved in the body and actualized in, and through, perception and experience. Affective response incorporates discourse and physiology in a mutually sustaining, reflexive relationship.

While narrative concerns like linearity and causality are important in maintaining the coherence of a game narrative, gameplay experience in a broader sense is not necessarily a linear process. Grodal distinguishes between linear narrative forms and 'paratelic' activities like dancing, 'in which there is reversibility and in which there is no source-path-goal schema.' [8] Paratelic activity is the inspiration behind Sega's rave classic *Rez*, a game that actively privileges intensity over content. *Rez* also provides a lucid demonstration of the *recursive* temporality of affective response.

Rez is Sega's salute to club culture, and it's aimed at an audience who are after a particular kind of experience. Playing *Rez* is a lot like being at a rave: it's all about visual and auditory overstimulation, the blurring of the boundaries between self and environment. 'Feel it, don't think' is the motto on Sega's *Rez* website, and the best way to play this game is to get caught up in it, to dance with it, to lose yourself in it. Playing *Rez* properly has less to do with completing all the levels than it does with reproducing the sensation that occasionally hits on the dancefloor:

a feeling of perfect synchronicity between self and surroundings, a synaesthetic or 'trance' state that reorganizes perceptions and sensory priorities. This kind of affective state is associated with nonlinear processes, with 'resonation and feedback that momentarily suspend the linear progress of the narrative present from past to future.' [10]

There is a temporal gap between the beginning of a bodily event and its completion as an outwardly directed, active expression: a delay of about half a second between the time that actions or choices show up in the form of brain activity, and the point that they are manifested in real time. This suggests that physical sensation is organized recursively; that perceptions are directed inwards, absorbed or 'infolded' by the body prior to their capture in/by language. The body, as Massumi puts it,

> is radically open, absorbing impulses quicker than they can be perceived. … [This] anomaly is smoothed over retrospectively to fit conscious requirements of continuity and linear causality. [10]

In simple terms, what this means is that player actions do not simply function to act on or confirm conscious perceptions. The body responds to its environment *before* the conscious mind does, in the form of biological reflexes like skin conductance response, heartbeat, and respiration rate. Individuals are usually not aware of these responses unless they are able to observe them. In such situations, participants often experience a feeling of strangeness, as though the body they are observing does not belong to them – 'an acute feeling that there is a self that is not one's conscious self.' [15] Rather than directing experience, consciousness, in other words, performs a subtractive or limiting function, reducing a complex web of sensation that is 'too rich to be functionally expressed.' [10] Cognitive function (what we also like to call reflection, volition, or free will) is neither the sole nor the primary determinant of human action: the latter is also a product of bodily and autonomic reactions that lie outside the realm of linear time and conscious choice.

A group of researchers Future University in Japan have exploited these subrational physiological responses to design an unusual game interface. ECG electrodes are attached to the player's palm to measure skin conductance response (SCR), and information about their state of agitation is fed back into the game, showing up as an indicator on the display and boosting the difficulty level in proportion to increases in the player's SCR. Despite their attempts to remain calm, players 'became aware of their unconscious agitation from their biological signal and ... were agitated further due to the perverse reaction of their own body.' [15] The more the player panicked, the more difficult the game became, creating a vicious circle which even skilled players found difficult to overcome. This system is designed around the uncontrollability of biological signals, and is less concerned with *quantifying* affective response than it is with *using* it as an element of gameplay. In this instance, user enjoyment is not a function of total immersion in the gameworld. Instead, a real space/time feedback loop uses affective response to enhance the gaming experience 'by exposing the conflict between involuntary actions of the body and the perception of one's mind.' [15] Positive player experience, in other words, is linked not only to onscreen action, but to a simultaneous awareness of both the virtual and the biological self.

DESIGNING FOR AFFECT

Games are more than just simulations of real life activities – they *are* real life activities: image-stories that we interact with in real time, on a physical plane. This is as true of arcade games like *Dance Dance Revolution* or *Ring Riders* as it is of online chess: in neither case can gameplay be reduced to onscreen activity.

In contrast to the phenomenologically engaging interfaces that characterize many arcade games, however, most standard joysticks or joypads tend to limit player activity, creating a sense of alienation from the gameworld that Steven Poole terms 'cybernetic dissonance'. For me, this dissonance manifests itself most frustratingly while playing the PS2 versions of the arcade classics *Centipede* and *Tempest.* The original arcade versions of both games were designed around specialized controllers (a trackball and a spinning dial respectively), neither of which are satisfactorily modeled by the Dualshock controller. Reducing this cybernetic dissonance, claims Poole, 'will always increase the possibilities of a closer and more pleasureable interaction with a videogame.' [12] In theory, this is the ethos of the force feedback controller, which strikes me as a sadly underutilized technology. Rather than simply vibrating in the player's hands, why not expand the concept of force feedback to include more vivid stimuli? Following the example of the ////////fur/// collective (inventors of the *Painstation*), designers might want to think about adding effects like heat, electric shock, or perhaps a sharp object that jabs the player's hand to simulate the effects of a knife or bullet wound.

What if this kind of authenticity were combined with the increasingly somatic vulnerability of avatars? In *Metal Gear Solid 3,* the hero's health can be compromised on a number of levels, and the player must undertake some fairly complex body management (eating fresh and palatable food, tending wounds properly) in order to maintain his vitality. Naturally, this also suggests some interesting new directions in avatarial abuse – the editors of *PS2* magazine make the following recommendation: 'Don't miss out on feeding our poor hero enough bad meat to make him sick. It's priceless. No really. Do it, you'll laugh your arse off.' [9]

Such increases in the level of corporeal investment in the gameworld coexist with new interfaces like *EyeToy* or GameTrak, where the player uses their entire body to control the game. As Poole notes, however, the two represent similar developments, 'trying to situate us, embody us, ever more solidly in illusionistic worlds.' [13] In both cases, good gameplay is a matter of striking a balance between immersion, investment, and somatic awareness. Play stops being fun when real-life intentions and consequences begin to be felt too strongly. Indeed, Poole argues that full immersion may actually impede good gameplay:

> Counter-intuitively, it seems for the moment that the perfect videogame 'feel' requires the ever-increasing imaginative and physical involvement of the player to stop somewhere short of full bodily immersion. After all, a sense of pleasureable control implies some modicum of *separation*; you are apart from what you are controlling. You don't actually want to *be* there, performing the dynamically exaggerated and physically perilous moves yourself; it would be exhausting and painful. ... You don't *want* it to be too real. ... The purpose of a videogame ... is never to simulate real life, but to offer the gift of play. [12]

WHY DEVELOP A THEORY OF AFFECT?

Many definitions of virtual reality and immersion continue to assume a radical distinction between mind and body, between simulated and external worlds. Understanding gameplay in terms of affective response suggests, however, that presence in virtual environments is more than simply a question of mind over matter, and that immersion is perhaps better understood in terms of *openness* than of full perceptual isolation. Affective response incorporates multiple modes of experience that enhance, rather than suppress one another. A theory of affect suggests ways that we might rethink existing boundaries between body, environment, technology, and self without ontologically diminishing any of these terms.

A theoretical discourse on affect also extends current debates on the relationship between games, gameplay and ideology. Ideologies are not only inscribed discursively, they are also incorporated by the body as gestural and physical behaviors. Repetitive physical actions have long been employed as a means of socializing and disciplining subjects, and the relentless uniformity of much gameplay activity can be understood in the context of this kind of sociocultural formation. Simulated worlds are used with increasing frequency by both civil and military organizations as training environments for real-world situations – modified versions of *Doom* and *The Sims* have been developed by the US military for tactical training. [11] For some, digital gameplay represents the 'taylorization' of leisure: the standardization of behavior deprives players of individual agency rather than liberating them, creating them as subjects of ideology in order to produce homogeneous, self-regulating subjects. [5] Ideology is only one mode of social formation, however, and affect occupies a different domain. As embodied subjects, we also possess *subrational* agency – we respond laterally and unpredictably to our perceived environment, and games actualize affect in ways that designers (whatever their motives) do not always anticipate. The ideological effect of games, in other words, is a function of more than their manifest content: it is also linked to the ways that they mobilize affect. Games are not simply vehicles for ideology, they are part of its *real* conditions of emergence.

Drawing on the domains of applied research and theoretical analysis, the discourse on affect has the potential to deepen our understanding of what digital games fundamentally are, how and why they are meaningful, and why people play them. Games, for their part, have a great deal to tell us about the way we perceive an increasingly image-based world. A theoretical discourse on affect extends arguments that frame our experience of this world as a form of ideological manipulation or alienation, and suggests ways that we might conceptualize such experience in terms of agency and engagement, and of the embodied exchanges that go on between systems of representation and the subjects that use them.

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