The Construction of the Cyborg Player in *Transistor*: A Ludo-Narrative Analysis

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Abstract: The paper intends to study the ludo-narrative structures of the game *Transistor*[1] to examine how, through the engagement of the player into the game's ludic structures (i.e. those structures that make it a game) constructs the cyborg body. The aim is to examine how the narrative of a game can contextualise its mechanics, and generate meaning. It understands video games, or even games in general not merely through its representational features, but in recognition that a game constitutes essential structures that make it a game, and enable the possibility of play. The cyborg body is understood in terms of how the player engages with the game in both the ludic and the narrative forms.

Keywords: Cyborg, Simulation, Videogame, Ludology, Science Fiction.

Ludology and Play

The paper is situated within the field of study that refers to itself as 'Ludology', as defined by Gonzalo Frasca in his paper "Ludology meets Narratology". Frasca proposed "the term *ludology* (from *ludus*, the Latin word for "game"), to refer to the yet non-existent discipline that studies game and play activities" (Frasca). Just like narratology, *ludology* should also be

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[1] From here on, *Transistor (in italics)* refers to the name of the videogame; while Transistor (without italics) refers to the sword that is within the videogame.

independent from the medium that supports the activity" (Frasca). The way this paper understands video games, or even games in general is therefore not merely through its representational features, but in recognition that a game constitutes essential structures that make it a game, and enable the possibility of play.

To arrive at what formal games are, we must first recognise what 'play' is. Johan Huizinga suggests, "Summing up the formal characteristics of play we might call it a free activity standing quite consciously outside "ordinary" life as being "not serious", but at the same time absorbing the player intensely and utterly. It is an activity connected with no material interest, and no profit can be gained by it. It proceeds within its own proper boundaries of time and space according to fixed rules and in an orderly manner" (Huizinga 13). To elaborate, play is an activity that occurs within certain limits, or boundaries, where the 'real world' loses relevance for the sake of engaging in play. It is necessary to trust these momentarily drawn boundaries for play to be taken 'seriously', to be enjoyed or for meaning to be made. This is the act that absorbs the player 'intensely and utterly'. The space of play can be referred to as the 'possibility space', recognising its capacity for meaning making that is distinct from the way meaning is made in the 'real world', or as Katie Salen and Eric Zimmerman would call it in their book, 'Rules of Play: Game Design Fundamentals', 'the magic circle' (Salen and Zimmerman).

Formal games constitute play, but distinguish themselves in the character of their formally defined rules that create this magic circle. The rules create a system that not merely provides the possibility space, but adds the motivational factors of 'win states' and 'lose states'. Play lacks this structure, and its persistence is in its capability to hold meaning in and of itself and not for an ultimate aim. What win states and lose states also suggest is that there is a goal to be achieved in engaging with the system of rules that make the game, and can thus either

'win' or 'lose' the game depending on whether the aim is achieved. It also suggests that the player has the capacity to fail to achieve the aim, or lose. This implies that there is a degree of 'difficulty' faced when engaging with the system of rules, and that there is a 'challenge' that has to be overcome to acquire the win state.

The 'game' or system of rules provide meaning to particular actions. For example a 'ball' and the act of 'kicking' have no relation except when contextualised in the act of play. In a game they are further contextualised by providing an aim, or win state: you kick the ball into a 'goal', and to make that difficult you have eleven opponents trying to stop you. Meaningful actions will thus be referred to as the 'mechanics' of a game, and the systems that contextualise these meaningful actions will be referred to as 'mechanical systems'.

Videogames and Understanding Narrative in Terms of Ludology

Video games provide an added layer of complexity because its ludic (i.e. game) structures are constituted of mechanical systems in combination with a visual or graphic representation of mechanical actions. These representations are distinct and abstracted from the mechanical actions themselves. For example, pressing the 'B' button on a controller makes a computer-generated character on-screen animatedly 'kick'. These are often further contextualised within a narrative, making these 'actions' meaningful not merely in terms of play, but also in terms of metaphor: it acquires the capacity to be literary through engagement. By this I mean that a football game is only a game, though it can be 'written' or 'talked' about. A videogame can be the story or a narrative itself, by making you 'play' as the 'character' who plays football. However, this refers to narrative driven videogames in contrast to purely mechanical video games that also very much exist. The focus of this paper will be on a narrative driven

videogame, and will examine how these structures together make meaning. In other words, this paper will analyse a videogame through its 'ludo-narrative' quality.

The aim of this paper is to examine how the narrative of a game can contextualise its mechanics, and generate meaning. The narrative also self reflexively examines its mechanical structures to generate meaning and ideas regarding the player themselves and their relationship with the game within larger discourses of identity and technology, as is explored under the notion of the 'cyborg'.

Science Fiction and the Cyborg

Science Fiction has provided a space where the notion of the 'cyborg' can be discussed. The cyborg thematically situates itself in discussions of social and political relations, and questions about identity and embodiment.

To Haraway the cyborg is a "cybernetic organism, a hybrid of machine and organism" (Haraway 34). The cyborg's hybrid nature blurs and rejects the binary divisions of patriarchal capitalism by being "resolutely committed to partiality, irony, intimacy and perversity. It is oppositional, utopian and completely without innocence" (Haraway 35) enabling it to be used as rhetoric to argue socio-political situations. The cyborg therefore serves as a point of "temporary attachment to the subject positions which discursive practices construct for us" (Bell 116).

The cyborg has enabled the discussion of the mind-body split, which can be traced back to William Gibson's 'Neuromancer' where the body is seen as 'meat' susceptible to injury or pain (Luptun 425). However, the 'meat' can be "discarded and the unconstrained consciousness flowing free in (and as) data" (Bell 140) by 'jacking in' to cyberspace to become "distilled in a clean, pure, uncontaminated relationship with computer technology" (Luptun 424).

The cyborg came to embody the discussion of posthuman identities as well, albeit in a hopeful manner. Technological augmentation of the physical body is 'prostheticization' where the physical limitations of the body, such as sickness or natural capability can be overcome. This hope constructs a utopic future, free of disease and of a form of evolution that is unlimited as "technology evolves exponentially" (Bell 144).

Through these discourses the cyborg does both "keep the body in view, while also raising vital questions about the boundaries of the body" (Bell 150). The cyborg therefore suggests fragmentation of identities, which are fluid and almost always confused. As a "boundary figure" (Bell 150), it blurs and disturbs established worldviews.

"The fluid fragmented late-modern or postmodern self has the new capacity to make itself over, to reshape and restyle elements of identity – or at least to make choices about which aspects of itself to privilege at any point" (Bell 116). It is these 'capacities' that are opened up when the 'player' chooses to turn on a 'video game'. Videogames can be thought of as a kind of simulation the player 'jacks into'. A video game simulates an environment and a social structure. It however differentiates itself from other forms of narrative by not only being representational but also experiential. "Simulations offer the player the opportunity to engage with a dynamic system from an *experiential* perspective and a significant amount of this direct involvement is provided by the freedom to interact with, and have control over, the simulated system" (Woods). Video games, however, are not merely simulation, but also *games.* Being so, they provide an experience, not merely through interaction with an environment, but through 'play'.

A way to understand this experiential quality of video games is to see it in terms of what I will refer to as kinesthetics. Kinesthetics is literally the 'sense of motion'. Since video

games tend to place players in a largely stationary position, it is necessary to communicate the visual movement that occurs on-screen to the player through their interactive device to simulate the movement that occurs in the game world. An example, as given before, is when the player pushes the 'B' button, the on-screen player-character performs a 'kick', or to rephrase it, an animation of the player-character is shown kicking. Things like how quickly the visuals respond to the actions of the player, the fluidity of the animation, the visual feedback to complex actions that act as a reward are all a part of the kinesthetics of a game. In a sense they are an integral part to making a game enjoyable, that they are so 'sensory' oriented, and have the tendency to create muscle memory. A simple example to illustrate would be the very first game 'Pong', where there were two flat things on opposite ends of a screen and a bouncing pixel between them. People quickly figure out that if you turn the 'knob' placed in front of the screen the flat board on one end would move, corresponding to the appropriate knob. If one moved the knob correctly, the pixel or 'ball' would strike against the board with a satisfyingly resounding 'ping' sound, and bounce away to the other end. If one 'missed' the ball, the other side would gain a 'point'. In almost no time people had figured out the mechanical system and were already attempting to master it, perhaps even in the same way people master any other physical sport. Perhaps this is one of the reasons why videogames are so captivating and experiential. Kinesthetics are a vital part to the thesis of this paper as it contributes to understanding the player's relationship with technology, and the processes through which the player enters into the simulation of the game, willing to interact and engage with it, and even enjoy the experience that such processes provide.

The video game *Transistor* developed by the game designer 'Supergiant Games' is such a game. This game has been chosen as a text to explore the given concepts because of its self-reflexive nature that brings the player's attention to their position as a player of this game, by

narratively contextualising its mechanical systems. The playing of the game therefore also becomes a sense-making process for the player to understand what it means to play the game. It contributes to understanding how the player behaves as a cyborg by such an interaction with technology, but also makes it part of the thought process of the player — generating discourse of their cyborg relationship with the game.

For this paper, I will analyse *Transistor* using the ludo-narrative method. The ludo-narrative method assumes that a videogame cannot be analysed by separating its ludic elements from its narrative ones. Therefore, any meaning that emerges from the experience of playing the game is understood only in terms of the relationship between the ludic elements and the narrative elements, and how through one the other is understood. It is also important to note that the researcher situates themselves as the "player" of the videogame and not an observer and has used a computer and keyboard and mouse to play the game, not a console or a controller.

Transistor: An Analysis

Ludic Engagement: Understanding How a Player Makes Sense of a Game through its Ludic Systems

Fig. 1: Start up.

Transistor begins with what James Newman would call 'Off-Line' engagement. This is distinct from On-Line engagement which in the common-sense manner is thought to be "playing the game" (Newman), when input from the user is provided through the control interface to cause non-trivial (in the sense that it changes the way a game is played) action. Off-Line engagement is thus where no 'play' occurs, but engagement does, by providing the player with information about the game through a visual aesthetic, setting and sound. In *Transistor* the convention of displaying a 'press any key to start' button prompt is abandoned; and nothing on screen suggests that the player must do anything but wait expectantly for the button prompt, and meanwhile absorb the information that the game provides, of a single frame of narrative context as seen in Fig. 2.
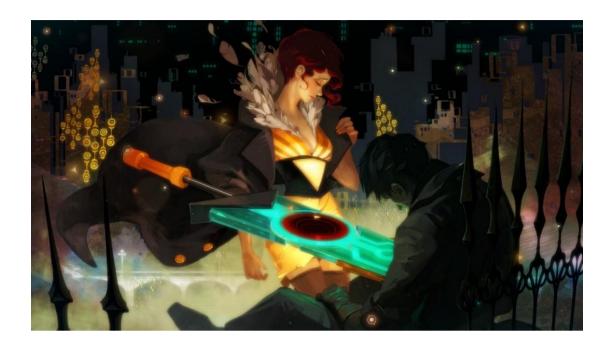
Fig. 2: Opening frame.

Off-Line engagement cannot be confused with passivity (Newman) as cognitive engagement occurs. When the realisation by the player occurs, and 'any key' is pressed (this being a trivial action), the opening 'cut-scene' begins to play out. The cut scene tells us a number of things, one of them is that the 'sword' can speak, and its red centre blinks to the wave of its speech, the other is that the sword appears to have a symbol akin to that of the 'USB stick' upon it, suggesting that the 'sword' is somehow a piece of technology and within it is contained an intelligence. This makes the 'sword' a completely technological body that serves its intelligence, suggesting not merely a cyborg, but a 'perfect one', without its 'meat', which is "the dead flesh that surrounds the active mind which constitutes the 'authentic' self" (Luptun 425). Through the game's narrative, one comes to learn that the 'sword', called the Transistor (henceforth referred to as such) is a piece of technology capable of absorbing the intelligences/souls of people it comes in contact with, such as the man in the Fig. 2, who now speaks through the Transistor.

The next thing the opening frame of the cut-scene suggests is that the player is likely to be 'playing' or 'role-playing' as the character, named Red, in the centre of the screen, which is what happens when the player begins On-Line engagement. The Sword is the "Transistor" after which the game is named. The moment the player engages with the keyboard and mouse they become the functional intelligence of Red, and is now "role-playing"; in other words, the engagement is now On-Line. The player engages with the keyboard and mouse, using the conventional commands for movement, that is W, A, S, D as up, left, down, right, respectively. This action is reflected in the movement of the onscreen character, Red and the Transistor that she holds in her hands. The mouse is then discovered to function as a pointer, and on using the right mouse button an 'attacking' move is performed. Not all 'moves' are 'attacking' and can be 'defensive' or even 'passive', but the very first instance of striking the right mouse button provides a move that will later be discovered as an attack. It is in this instance that the embodiment of the player into the simulation that is the game occurs. That a videogame, by being a videogame can embody the player within a simulation is the first step to conceptualising how the player becomes a 'cyborg'.

At this point the player can assume two things. Either that when the player uses the mouse buttons the player is performing as Red performing the attacking action. On the other hand, considering that the Transistor seems to have its own voice and an intelligence, we can consider that when moving using the WASD keys the player roleplays as Red, and when performing an attacking action the player roleplays as the Transistor. This proves to be interesting because we can read this as the player roleplaying as two distinct identities, but functioning as one cohesive unit that is known as the player character.

The thing that most constitutes the definition of a 'game' is the 'challenge' (Karhulahti). Karhulahti provides a theory of kinesthetics to examine the nature and form of the challenge:

it is "a rhetoric with no claims, arguments or extractable thematic meaning", it is a 'rheme'. A kinesthetic challenge is therefore one that requires non-trivial (in that it "does make the success of performance uncertain" (Karhulahti)) psychomotor effort to overcome it, and a non-kinesthetic challenge is one which requires only trivial ("does not make the success of the performance uncertain" (Karhulahti)) psychomotor effort.

In *Transistor* the 'challenge' of the game is presented as combat. One has to defeat regular groups or 'waves' of 'robots', narratively named 'The Process', that appear as the player moves across the topography of the game-world. The rhetoric of this challenge is to effectively combine, manipulate and use moves or 'functions' while keeping in mind the weaknesses and abilities of the different kinds of 'Processes'. The complex combat system combines real-time combat and a pause and play mechanic that allows the player to plan their moves. Each action that the Sword makes is represented as a function, where you have the name of the move, followed by two brackets: "()". When the "Turn()" function is initiated, the game pauses and the player must select the actions that they can perform. The number of actions is limited by an energy bar. Different actions use up different quantities of energy, creating one of the fundamental challenges of the game: to efficiently manage your energy resources. After executing the Turn(), the player needs to wait for the action bar to recharge before another move can be performed, with the exception of a few abilities. If the Turn() has not been executed or planned properly the player character may be put in danger of taking damage from enemy characters.

Planning for each Turn() serves as the cognitive aspect of the kinesthetic challenge. Red must also navigate the topography of the battlefield, move quickly to protect herself and dodge incoming attacks. This serves as the physical aspect of the kinesthetic challenge. 'Physical' in the sense that the input device and system of the game translates the mundane real

world action of pressing keyboard keys and pushing mouse buttons into the actions of the character on screen within the world that the character inhabits. To these actions a feedback is provided, in the form of rewards or punishments. If a series of moves is well executed, the player receives the satisfaction of quickly overcoming the foe, and at the end of the battle gaining 'experience points' and 'levelling up'. If not, the character on screen 'dies', the player is defeated and forced to retry till success is achieved. This makes victory all the more satisfying due the increase in the stakes; the stakes being the idea that the strength of the opponent is greater than your own. Feedback is also provided in terms of the on-screen visuals and sounds in the form of exploding robots, moves with a great deal of impact and damage, and the sounds of these explosions. This feedback provides a visual and aural experience that is satisfying, providing what is called 'game feel' (Swink). The mundane real-world input translates to a series of actions and reactions to a host of stimuli that affects the on-screen character in a serious way. The player, when controlling the on-screen character's actions, therefore chooses to take responsibility for these actions and attempts to avoid ill consequence as much as possible and ultimately gain 'victory', as determined by the game's win-states.

The challenge of overcoming The Process also comprises non-kinesthetic engagement, in that it is purely cognitive. At particular "Access Points" the player can access the code of the Transistor.

The code comprises four "Active Slots", two "Supplementary Slots" that are connected to each Active Slot and two "Passive Slots". One can place abilities within these slots. The abilities in the active slots will be directly reflected in combat when performed. The abilities in the supplementary slots augments or modifies the active slots by providing additional statistics, such as "damage" or "distance". The abilities in the passive slot passively effect the player, such as boosting health or providing a shield or increasing the chances for a "critical

strike" or "Kill()". All abilities can be placed in any slot in multiple combinations. As incentive to experiment more with multiple combinations, the reward for placing and using abilities in all three kinds of slots is narrative, furthering the idea that this very much requires cognitive engagement. The placing of abilities in the slots requires a great deal of planning, and in a way represents progress through the game. As you move from challenge to challenge the player experiments more and grows comfortable with particular combinations after growing accustomed to the combat system. This sort of growth represents an accustomization with the simulated world, further embodying the player into the simulation. The embodying of the player runs parallel to the character development of Red and the Transistor furthering the role-play, now embodying the player not just within a simulation but also within the character/characters.

The physical and cognitive nature of game feel, Karhulahti refers to as the 'vicarious' experience. To achieve this, some aspects of the player's body are made trivial and the others not. For example, whether the player can lift a great deal of weight is trivial, but whether the player has great hand-eye coordination is non-trivial to acquiring a satisfying game feel. The input capability of the player is translated into the game as the movement of the on-screen character, the decision making capability of the player is translated into the decisions and choices the on-screen character makes and the feedback that the game provides. This gives the player an 'experience' of the game-world or simulation. This form of experiencing the simulation, I suggest, constitutes the embodiment of the player within the simulation. This notion emerges from thinking about the game as a vicarious experience; and not merely a narrative where characters are 'relatable', but where on-screen characters are "embodied as sets of available capabilities and capacities" (Newman). The player can manipulate and possess these as if they were her own, where players "role-play" as characters within a simulated

environment, and where the player's playing self is embodied. The technology of the PC and the keyboard and mouse that put the player 'On-Line' allow the player to 'jack into' a simulation. However, unlike Gibson's 'Neuromancer', the player is not rid of the meat, but rather, some aspects of the 'meat' are used non-trivially in combination with technology to create a novel experience of playing a video game, providing an "extended embodied awareness" (Bell 143). The 'meat' is "integrated with a variety of artificial and prostheses" (Bell 143), that is the keyboard and mouse. This provides an extended embodied awareness of constructed realities (in the sense that actions in that 'reality' or simulation have consequences that the player can care about), constructing the cyborg player. 'Reality' is not abandoned but augmented.

Transistor, as a game, however, will not let you stop there. By constantly bringing attention to itself, it forces the player to pay attention to and acknowledge the form and nature of the construction and simulation.

Interpreting the Narrative of Transistor in Light of its Ludic Structures

Transistor's narrative is non-expository, so to gain the necessary information about the narrative the player has to recognise a great number of subtleties that function as thematic ideas and story-telling mechanisms.

Throughout the game world are various clues that the world is itself a simulation. For example, the naming of places like the 'Port' or 'Junction Jan's' and the 'access points' littered everywhere seem to employ jargon used for naming computer hardware. The abilities and moves that Red can perform with the Transistor are labelled 'functions()', such as 'crash()' and 'breach()', which seem to refer to computer software and coding. All these serve as suggestions that the game world is a simulation. However these are gleaned merely through Off-Line

engagement. One important feature of On-Line engagement is the 'Turn()' ability in combat. The Turn() functions as a pause and play mechanism that allows the player to pause the game and without the pressure of limited time, can plan a limited number of upcoming moves by setting them onto an action bar. What the context, and by 'context' I mean the 'naming' of particular actions or mechanics to provide narrative meaning, provides to a fairly common pause and play game mechanic is to suggest that the character Red has some sort of 'super user access' to that world, where time can be stopped and decisions taken at the expense of some resources in the same way that any person can pause a game (and thereby the entire world of the game) to perhaps go for a toilet break.

Fig. 3: Planning

Fig. 4: Execution

This suggests the notion of layered realities and simulations within simulations, across which the player's body is embodied. Cyborgs function as "boundary figures" (Bell 150), and in the same way that they disturb "neatly ordered worldviews" (Bell 150), they disturb the borders between realities. Engaging with this video game then becomes the very existential experience of disturbing those boundaries. "The cyborg then can be heroized or romanticized as a liminal, troubling metaphor for instability, fluidity and hybridity" (Bell 150). In a manner of speaking, *Transistor* does exactly that: it heroinizes the player, regardless of gender, by embodying the player into a female character - Red.

Red further represents this fluidity through her, and therefore the player's, relationship, with the Transistor, the massive 'sword' that she carries. As shown in figure 1, the game begins with the scene of the death of Red's lover. We see that he has been stabbed by the Transistor. However, we find out that the Transistor seems to hold the disembodied consciousness of Red's lover. In other words, her lover has been embodied into a new, technological body. As Red progresses through the world, she comes across people who have been 'processed' (killed by

the Process). She is able to absorb their remaining essences of those people that were killed by The Process into the Transistor. Each person that has been absorbed into the Transistor provides her with more 'moves' and 'attacks'.

The Transistor therefore appears to be a piece of technology that has the ability to absorb the essence of dead persons (so to speak), and speaks in the voice of Red's lover, who seems to be the dominant consciousness within the mixture of consciousnesses that co-exist within the Transistor. The absorption of such persons modifies the capabilities and provides more 'functions()' to the Transistor. The abilities (as understood in terms of the combat) are the very people absorbed into the sword. What this implies is that the technology of the Transistor provides a space where disembodied entities can exist, suggesting the notion of the cyborg body completely free of the 'meat'. The functions() the Transistor contains, being combinable and modifiable with relative ease, actually constitute the essence of people, shows how fluid a disembodied self is within the cyborg body, easily crossing over and modifying personalities and human identities.

This is seen particularly in the development of a personalised combination of abilities, which being 'people' can suddenly be interpreted in terms of relationships that develop into firm attachments. This is specifically seen in the penalty for poor combat performance where one's most favoured ability is lost at the loss of a health bar. In light of the narrative backstory that rewards the experimentation with the functions() in varied combinations, the use of these functions() is intertwined with the understanding of the character of whom the ability is (within the video game simulation) the real world embodiment of themselves. This suggests that relationships can persist and develop regardless of the state of embodiment, which may well be understood as a sort of ideal that prevails through the simulated world of the videogame.

The same notion of fluidity is seen in the relationship between Red and her lover which persists even after the loss of the lover's physical body.

As Red progresses through the world her reliance in the Transistor to overcome difficulties can be reflective of a need for that kind of technology. The ability to overcome difficulty through technology again suggests the idea of technological augmentation for "inanimate objects, when touched or on the body for long enough, become extensions of the body image sensation" (Luptun 423). In a flashback to when Red's lover was killed, the players discover themselves robbed of all ability, kinesthetically a very jarring thing to happen in the middle of the game, as it breaks the flow of power the player establishes through Red and the Transistor.

The player then has to move a sobbing Red. However, the moment Red picks up the Transistor, she seems transformed and strengthened, as though the presence of her lover has given her some force of will. This sudden, non-kinesthetic section of the game, where Red's movement is far slower than what the player is accustomed to, provides a feedback that disturbs the flow of the game, metaphorically representing the difficulty that Red herself is going through in attempting to deal with the death of a loved one. This shows the player that without the Transistor not much can be done to survive this world. It points out the importance of the relationship between Red and her lover: that one cannot do without the other. Red needs her lover for moral support, and her lover needs her to be carried around. To be embodied as Red therefore embodies the player in a highly liminal space where identities morph into functions(), and where relationships flow between bodies jumbling the embodied self with other selves highly dependent on each other to be able to function.

The game *Transistor* is designed as an action game, which pits the player against a series of antagonistic characters in the game world. In *Transistor* it is The Process, or robots who are seen as an uncanny version of human beings, that are the antagonists. In some ways they represent a sort of perfection, "representing the ideal body as that which is invulnerable to illness" (Luptun 425). They symbolise a technology that will replace the "worn-out organic elements" (Bell 144) of the flesh body or meat, which is seen as "being far more permeable, fluid and subject to 'leakage'" (Luptun 425). The play of the game that pits the player, a cyborg, against the Process then represents conflict.

The game chooses to represent this conflict as one between the human desire to survive and protect one's loved ones against robots that are emotionless and lacking in intent, but simply being, an out of control code. The robots, the player finds out, are only following orders, but the humans who were in charge have lost control over them, leaving the Process to proliferate, replicate and even evolve.

As one progresses through the game, the naming of the different kinds of The Process is done by Red's lover, as "Creeps" or "Jerks". This naming forces a perspective that contextualizes the robots as antagonists, regardless of whether the robots did indeed have such antagonistic intentions or not. As one grows in experience, levels up and gains new abilities, your evolution is reflected in the evolution of The Process as well. In terms of the kinaesthetic challenge this is the development of new challenges which will require new strategies. The different kinds of Processes regularly upgrade themselves, but also seemingly evolve as newer ones emerge with narrative and temporal progression. The robots seem to grow increasingly humanoid. When The Process encounters humans it 'processes' them and apparently assimilates them. When you encounter the first antagonistic 'processed' human, a woman, it takes on the label 'Lady', and its physical form engenders it as female. And later on, a 'Man'

is encountered. The Process seems to be apparently not just intent on assimilating the humans they process, but subverting and interpreting particular human quirks in an uncanny parody as well. The Lady is extremely aggressive creating multiple bodies that attack the player, while the Man is passive. The Man's only mode of attack is to grow 'hair' and 'cut' the hair after which the 'hair' acts like a homing device and follows the player around, exploding on contact. The rest of the time the Man stays invisible, and can't be attacked until it is provoked to 'cut' its growing hair.

These structures that the robotic Process seems to embody, churning out replica after replica of its different instances, juxtapose themselves with the fluid experience of the cyborg body that the player embodies when engaging in the simulation and the play of the game. In such a sense, the Process seems to represent not antagonists that one has to engage in combat with, but the embodiment of a philosophical conflict that the cyborg body instigates, that is one which represents the anxieties about the takeover of human life by technology.

The Process disturbs the constructed identities of the self by becoming the uncanny perfection of the human body, homogenised and consistent, quite unlike the emotional upheaval that Red goes through. As David Bell says of this anxiety, "as intelligent robots design successive generations of successors, technical evolution will go into overdrive. Biological humans can either adopt the fabulous mechanisms of robots, thus becoming robots themselves, or can they retire into obscurity" (144). The combat mechanic of the game that pits the player, with a technologically augmented meat body and the character identity of humans persevering through difficulty, against the completely technological, unemotional robot represent this conflict about the cyborg body. The only way to win the game is to engage in its play, and the only way to engage in play is to come in conflict with The Process. This seems to suggest that conflict between humans and technology, though both need the other to exist, is inevitable.

Thus *Transistor* simulates the experience of being a cyborg: a self that is fluid across technologies into simulations and game systems, but is grounded in the sensory experience of the player's physical body that interacts with hardware. Thus it transforms how the notion of cyborg is understood, to an understanding that comes from performing as a cyborg. However, upon benefiting from this technology that allows an extended embodied awareness, it seems inevitable that an anxiety about the relationship between humans and technology will remain.

The game ends narratively with Red 'killing' herself with the Transistor, and the final frame shows her standing beside her still unnamed lover, in what seems to be another world, which the player might interpret is within the Transistor itself. Considering the Transistor is a store for these disembodied people, this other world is in perhaps a different sort of embodiment within yet another layer of simulation. What this ending seems to suggest as the thematic resolution of conflict that human ideas of things like love, attachment and physicality persist are translated from the real world into the simulated world. Similarly, the experience of this narrative and the cyborg body, with its conflict and emotional upheaval, is provided for the player through the technologically augmented body.

It is from this experiential position that a thinking about the cyborg body and identity can occur. The cyborg represents forms of "differential or oppositional consciousness, and both suggest new ways of thinking, acting and living together" (Bell 154). The form of the videogame, as differentiated from other media, allows this discourse to take place in this form. *Transistor*, in recognising where and how the player is situated within its mechanics, was able to use its modes of engagement and play to communicate these ideas, and create a complex intermingling of relationships that recognises that these ideas and anxieties cannot be understood simplistically.

Stewart Woods points out that "the purpose of the simulation is to evoke the reality of the simulated system so effectively that participants feel 'realistic emotions which naturally arise in the situation being simulated'" (Woods). *Transistor* simulates the experience of being a cyborg, a self that is fluid across technologies into simulations and game systems but grounded in the sensory experience of the player's physical body that interacts with hardware. It transforms how the notion of cyborg is understood, not simply by addressing or representing the idea, but by forcing the player to be embodied as a cyborg. From that embodiment the player acts out their embodiment into the game-world, where they must face the conflicts and challenges that are the result of the acting out.

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