Modeling the Semiotic Structure of Game Characters

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ABSTRACT
When game studies has tackled the player-character, it has tended to do so by means of an oppositon to the notion of the avatar, with the result that the ontological and semiotic nature of the character in itself has not been given due attention. This paper draws on understandings of character from the fields of narratology and literary theory to highlight the double-layered ontology of character as both a possible individual and as a semiotic construction. Uri Margolin's narratological model of character signification is used as the basis for developing a semiotic-structural model of the player-character that addresses its specific medialities and formal nature – a task which is performed through illustrative close examinations of the player-characters in *The Last of Us* (Naughty Dog 2013) and *Gone Home* (The Fullbright Company 2013).

Keywords
Player-character, avatar, narratology, semiotics, game ontology.

INTRODUCTION
The question this paper sets out to answer is a simple, and, perhaps, rather obvious one, but one that, to some extent, game studies has shirked from confronting directly. It is this: *what constitutes a player-character?*

It might seem strange to suggest that the player-character is an under-examined theme in game studies. Even if consensus on the central questions is elusive, the discourse of the player-character is more-or-less clearly-defined, with established dialogues, arguments and counter-arguments drawing upon a broadly stabilized set of concepts. For every theory that player agency can be made to cohere to the nature of a predetermined character through the shaping of "dramatic agency" (Murray 1997), one finds a reaction stating that the nature of the figure as a vehicle for player agency renders notions of character irrelevant: it "just becomes a "cursor" for the player's actions" (Frasca 2001), being understood purely in instrumental terms as a set of tools to be deployed by the player (Newman 2002). To this, in turn, is opposed the objection that "the steerable thing being discussed is a character, with an anthropomorphic nature and a character's place within the interactive fiction world" (Montfort 2007). Westecott (2009) suggests an application of puppet theory to the player-character. More recently, the discussion has taken new inflections in Jørgensen's outlining of the conflict between player agency and the constraints of a fixed, predetermined character (2010), or Fernández-Vara's signaling of a radical split between player and character (2011).

Proceedings of DiGRA 2014: <Verb that ends in 'ing'> the <noun> of Game <plural noun>.

As divergent as these positions are, in all these cases, the focus of research has tended to be "the framing of the relationship between the player and her player character" (Westecott, 2009, 2) – not on the character in itself. As such – and for very valid reasons - "player-character" is often linked to "avatar", in a recurring identification of a duality in the ontological nature of the anthropomorphically-represented game entity under the player's direct control – a duality most fully mapped-out by Rune Klevjer (2006, 10).

What we are dealing with is, at heart, a game component, one of the set of entities that constitute the game system. For want of a better neutral term that lacks the implications of either "avatar" or "character", we can call this entity, for the purposes of this study, the *figure*. Its being the only game component over which the player is granted direct control gives it the status of an "avatar" – and, on this front, there is no shortage of critical perspectives investigating its formal, ontological and phenomenal nature (a by no means exhaustive sample might include Newman 2002; Rehak 2003; Linderoth 2005; Klevjer 2006, 2012; Bayliss 2007; Jørgensen 2009; Waggoner 2009; Mukherjee 2012). However, the game component and the character *are not the same thing*: "Lara Croft", aristocratic British adventurer, is not the computational entity that responds to the player's input, to which a particular audiovisual representation is attached. Rather, as a character, she is a "possible non-actual individual" (Margolin 1990, 844), a member of a diegetic world. The game component over which the player is given control, together with its associated audiovisual elements, is only a sign that *represents* this possible individual, engaged in a semiotic process of signification that still needs to be mapped out.

WHAT IS A CHARACTER?

By and large, when opposing "character" to "avatar", game studies has taken for granted the idea that the former refers to the impression of an individual with its own identity, without considering how this impression is formed. Noting the consternation faced by players of *Crysis* (Crytek 2007) when the avatar suddenly begins to speak in his own voice, Kristine Jørgensen writes that "the avatar gives the impression of suddenly turning from being completely controlled by the player into being an individual and autonomous being with a will of his own" (2009, 3). While the existence of this independent individual – or, at least, the impression of it – is acknowledged, questions regarding its ontological make-up, and the formal techniques by which it is produced, have not been tackled to a sufficient degree.

Of course, every rule has an exception, and, in this case, that exception – coming from the field of game design – is Lankoski, Heliö and Ekman's model for the construction of game characters (2003), which shall be referred to again below. Still, we should ask: why this paucity of analysis? Perhaps the reason is that characters – those possible individuals routinely encountered, not only in games, but also in novels and short stories, on TV, on stage or at the cinema – are "so familiar a phenomenon that they do not seem to require closer inspection" (Eder et al. 2010, 3). However, literary theory in particular has, for some time, recognized that "once they are subject to closer scrutiny, characters prove to be highly complex objects" (ibid.). The problem presented by the constitution of character takes its shape from the gap that opens up between the impression received by the reader of a living, breathing individual, and the reality that, if we were to identify any concrete ontological existence for this individual, we would come up only with a limited set of textual signs.

The co-presence of both understandings of "character" might appear paradoxical, but it is in this very paradox that the essential ontological nature of character is to be found. The

study of literary characters has taught us that the irreducible individuality of character as a possible non-actual individual, marked out by the proper name as its symbol, as well as by the essential nature that name stands for (Genette 1980), is an illusion constructed through an accumulation of textual signs – and that, in understanding the nature of character, its "verbal surface" is as crucial as the "suggestion and imitation of human life" it establishes (Price 1983, 57). Or, to use the terms suggested by James Phelan (1989), a character is both *mimetic*, a (re)presentation of a possible person, and *synthetic*, a textual construct constituted of signs. (Phelan also introduces a third quality – *thematic* – to refer to character's status as textual elements performing a signifying function within the work as a whole – but this is less directly relevant to our current concerns).

In order to avoid the risk of misunderstanding inherent in applying models form the field of narratology to the study of games, a preliminary disclaimer is in order. It would be entirely mistaken to claim that a player-character in a game bears the same ontological make-up, or is experienced in the same way, as a character in a novel. There is both a fundamental similarity and an essential difference between the two. The similarity lies in the fact that both are received, by the reader on the one hand and the player on the other, as a possible non-actual individual. The difference is that this impression is communicated through different semiotic modalities: while a literary character is a purely linguistic construction, a player-character is established through a set of interrelating medialities that, in addition to the linguistic and the audiovisual, includes modes of signification that are specific to games. Moreover, the double-sidedness of the term 'player-character' is no misnomer: as we shall see, the player has a significant role in determining the nature of the player-character that finds no equivalent in, for instance, the reader's reception of a character in a novel.

This makes it necessary for game studies to develop a model for the semiotic structure through which the player-character is established that directly addresses these specificities. At the same time, there is enough of an overlap between character as it is manifested across media to make a theoretical comparison worthwhile; and, in literary theory, we can find a tradition of involved, in-depth considerations of precisely the problem that we have identified. As such, while, on the one hand, we should not attempt to shoehorn player-characters into a literary mold, it would be equally inadvisable to entirely discard literary theory's considerable insights into character. If we are to arrive at an ontological model of the player-character, there is no better starting-point than a similar model developed with respect to literary characters.

A SEMIOTIC-STRUCTURAL MODEL OF CHARACTER

This was precisely the approach taken by Lankoski, Heliö and Ekman in their attempt to analyze the constitution of player-characters (2003). Starting with reference to Shlomith Rimmon-Kenan's discussion of the nature of literary characters, their model attempts to expand the understanding of the ways in which the determination of character can also occur through game-specific means.

The model they propose is invaluable at suggesting the ways in which the 'player' part of 'player-character' must reshape the understanding of 'character' we are to employ, and its insights will be drawn upon in the construction of the model proposed by this paper. However, their engagement with literary-theoretical discussions of character remains minimal. More seriously, non-ludic modes of characterization are bracketed and set aside from the main thrust of their analysis, missing the potential to arrive at a unified understanding of the specification of player-characters that fully integrates all possible

avenues of characterization available to games as a hybrid form that also incorporates non-ludic medialities.

The model of characterization that this paper shall use as its foundation is that proposed by the narratologist Uri Margolin. According to his model, the basic building-blocks of character, on the textual level, are what he terms *characterization statements* (1986, 206). A characterization statement (hereinafter CS) is a textual cue from which some attribute or trait pertaining to a character can be inferred. As the reader engages with a text, she will encounter a sequence of CSs for any given character, and will interpret each CS as an insight into some aspect or trait of the character in question. Margolin refers to this process of "the ascription of individual mental traits" or factual attributes to a textual individual on the basis of an inference from a CS as *characterization* (ibid.).

A character is therefore always a product of a second-order process of signification – Margolin notes that a "character or person is a signified, for which some other textual elements serve as signifiers" (ibid.). Moreover, the inferential nature of characterization reveals a considerable level of ambiguity at work. Most CSs accommodate multiple readings – different, perhaps even directly contradictory, character attributes can be inferred from the same CS depending on how it is interpreted by the reader. This is the point made by Roland Barthes in his influential reading of Honoré de Balzac's *Sarrasine:*

> "To read is to struggle to name, to subject the sentences of a text to a semantic transformation. This transformation is erratic; it consists in hesitating among several names: if we are told that Sarrasine had '*one of those strong wills that knows no obstacle'*, what are we to read? *will, energy, obstinacy, stubbornness,* etc.?" (Barthes 1974, 92)

This understanding leads us to conceive of "character" as a mental construct arrived at by the reader, built up piece by piece, in puzzle-like fashion, through the gradual accumulation of CSs. This is the process that Margolin terms *character-building*, which "consists of a succession of individual operations of characterization, together with second order activities of continual patterning and repatterning of the traits obtained in the first order operations, until a fairly coherent constellation or trait paradigm has been arrived at" (1986, 206). As Rimmon-Kenan puts it, "if a common denominator, e.g. ambivalence, emerges from several aspects, it can then be generalized as a character-trait, and in a similar way the various traits combine to form the character" (1980, 38). The result of this is that "character can be seen as a tree-like hierarchical structure in which elements are assembled in categories of increasing integrative power" (ibid., 37).

Margolin's next step is to offer a taxonomy of the possible categories of CSs, thereby mapping out the semiotic foundations upon which the hierarchical signifying structure of character is established. A caveat is necessary: the very term Margolin chooses - character *statement* – implies a mediality of character founded on linguistic propositions. If we are to articulate a model of the semiotic structure of player-characters, Margolin's taxonomy must be modified to fit the medial specificities of games. Nonetheless, his basic distinction between three categories of CS – *static mimetic elements, dynamic mimetic elements* and *formal textual patterns* – provides us with a good initial stepping-stone in coming to terms with, and attempting to arrive at a comprehensive categorization of, the complete span of modes of CS games afford in relation to their player-character/s.

It is to the task of formulating such a categorization that the rest of this paper shall be dedicated. Though reference will also be made to a range of other games and player-characters, this categorization shall be framed through a close analysis of the player-

characters in *The Last of Us* (Naughty Dog 2013) and *Gone Home* (The Fulbright Company 2013). *The Last of Us* was chosen as an example of a game whose high production values and adherence to the medial and generic conventions of audiovisual narrative result in a highly specified player-character constituted of a dense, multi-medial network of CSs. By way of contrast, *Gone Home* was selected in order to provide an opposite case, where the player-character is minimally specified and, if it is to emerge as a character at all, requires far more in terms of reconstruction on the reader's part.

STATIC MIMETIC ELEMENTS

In Margolin's classification of CSs, *static mimetic elements* refers to statements regarding fixed (or relatively fixed) facts regarding a character, including "name, appearance, customs, habits, man-made and natural setting or environment" (1986, p.206). Of course, with respect to a literary character, these elements might change drastically over the course of a narrative. How much that is true of Jane Eyre at the start of Charlotte Brontë's novel, as a ten-year-old living in the Reed household, remains true of Jane Eyre, the experienced, financially independent woman at the novel's end? The same is true of player-characters in games, who are capable of undergoing radical transformation over the course of a playthrough while remaining, recognizably, the same character. For example, Jodie Holmes in *Beyond: Two Souls* (Quantic Dream 2013) is glimpsed (and played) at various stages in her life: as a toddler, a young girl, a teenager and a young woman. In between these scenes, many of the static mimetic elements undergo radical shifts: her appearance changes, her costumes are different, her environment – and the role she plays within it – vary, and so on. Moreover, with specific reference to the category of static mimetic elements that are termed "ludic elements" below, we can note that "character development" as a game mechanic is a defining feature of the role-playing game genre. This demonstrates the fact that the mutability of player-characters is itself an accepted trope, and that the usage of the term *static mimetic elements* no more implies a rigidly unchanging nature for player-characters than it does for literary characters – contrary to Frasca's suggestion that "most videogame characters would be flat" (2001, 1), a reference to the novelist E.M. Forster's definition of flat characters as those that "do not change throughout the course of the work" (1995).

With that caveat out of the way, we can propose a subdivision of static mimetic elements associated with the player-character into three categories. *Represented elements* shall refer to CSs delivered through audiovisual or linguistic signs attached to the figure in question. C*ontextual elements* covers CSs that convey information regarding the character's place in their environment. Finally, *mechanical elements* describes the set of CSs which can be inferred from the structure of the figure as a game component.

Represented elements

i) Name

A player-character's name is often the first CS a player encounters. It can reveal the individual's gender and, to a considerable extent, their socio-cultural background – "Mario", for instance, signals the iconic plumber's Italian ethnicity. A character's name can also bear symbolic significance, being used to highlight important traits or attributes, or to reveal the character's function in the narrative – think of how Gordon Freeman's surname in *Half-Life 2* (Valve, 2004) signals his role as the "free man", striving for humanity's freedom in the face of the oppressive Combine occupation.

In *Gone Home*, the name Kaitlin Greenbriar (or its shortened form, Katie) lets us know that the character is female, and probably of Anglo-Saxon descent – an ethnicity that, in

the context of the US in the 1990s, suggests, at the very least, the strong possibility of a life of upper- or middle-class privilege. As a derivative of "Catherine", Katie's given name shares the Greek etymological root καθαρός (*katharos*), meaning "pure" – a fact which might colour our initial impression of the kind of person she is. By contrast, in *The Last of Us*, the given name Joel – no surname is ever provided – seems to purposely reveal little about the game's protagonist, apart from a down-to-earth everyman quality. The lack of a surname – a quality which extends to all the non-player characters in the game, all of whom are referred to only by their first name – also serves to communicate the dissolution of societal structures in the game's post-apocalyptic setting.

ii) Physical appearance

Along with the name, the player-character's physical appearance is often what constitutes the first impression of the textual individual that the player is encountering. With regard to our case studies, physical appearance plays a greater role in *The Last of Us* than it does in *Gone Home.* Given the latter's first-person perspective, combined with the slightly disconcerting lack of mirrors in the Greenbriar family home, the only images of Katie that the player receives are her passport photograph, and the family portrait hanging in the entrance hall. Apart from locating her, thanks to her hairstyle, in the game's period setting, these two images are most notable for their pointedly mundane quality, which aligns with *Gone Home*'s general stylistic direction. In *The Last of Us*, Joel's appearance – full beard, weathered features, slim but muscular build, slightly graying hair, hard, clear eyes – gives the player more to go on. It is easy to detect an earthy, no-nonsense masculinity. It is just as easy to gain the impression of an individual who bears the mark of long suffering, who has been shaped by having to survive in his harsh, post-apocalyptic conditions, and whose best years are behind him.

iii) Costume/s

Again, the outfit/s a player-character wears can be indicative of many things. Costume can signal the character's belonging to a particular social group, nationality, organization or historical period – whatever gender, race and appearance the player chooses for Shepard in *Mass Effect* (Bioware, 2007), for instance, he or she wears the uniform of the *SSV Normandy.* Clothes can also highlight a character's adherence to a particular subculture – Ben in *Full Throttle* (LucasArts, 1995), with his biker's leather jacket and boots, is the perfect example – or associate a character with a familiar set of generic iconography, as Lewton's trenchcoat and fedora in *Discworld Noir* (Perfect Entertainment, 1999) locate him firmly within the detective-noir tradition, despite the fantasy setting in which he is placed.

Joel's plain, utilitarian work clothes associate perfectly with the masculinity of his physical appearance, adding to the impression of an individual who is oriented towards manual labour and physical action, and who gets his hands dirty. their worn, stained nature also suggests having lived through hard times. Finally, his clothes also associate him with the Western genre, even further adding to the conglomerate of CSs which mark him out with such familiar – indeed, cliché – attributes as "masculine", "tough" and "stoic". On the other hand, what little we see of Katie's outfits in *Gone Home* – in the family portrait, she is wearing a plain, formal black dress – provides us with little on which to base a CS.

iv) Voice

If a character speaks, independently of what they say, the nature of their voice – its physical qualities, any traces of an accent, vocal tics or habitual mode of speaking – can

constitute a CS. Mario's cheerful disposition and Italian accent, at least since he was first voiced in *Super Mario 64* (Nintendo, 1996), are major elements in his characterization, even on the basis of only a handful of phrases; and, in *Thief: The Dark Project* (Looking Glass, 1998), it is Garrett's frequent, characteristically gravel-voiced interjections that constitute one of the primary avenues of characterization. Even a lack of voice can in itself become a CS, as in the case of the notoriously tight-lipped Gordon Freeman.

Katie's only vocal utterance in the game is the message she leaves on the family's answering machine: this message is played at the start of the game, and is played again if the player chooses to listen through the messages stored on the answering machine. Her voice seems upbeat – she speaks rapidly and confidently. With *The Last of Us*, Joel's gruff, often mumbled vocal delivery emphasizes a reserved, somewhat introverted disposition – and we might be tempted to also detect a resigned weariness, which would chime with Joel's haggard appearance.

v) Animations

As Westecott notes, player-characters possess a pre-determined "constrained gesture set" (2009, 5), and the nature of this gesture set can affect the player's perception of the character to a great degree. The same action can be interpreted as revealing radically different character traits depending on how it is animated. Mario's joyful leap in *Super Mario 64* and Nathan Drake's athletic but desperate, edge-grabbing scramble in *Uncharted: Drake's Fortune* (Naughty Dog, 2007) might animate what is, at heart, the same ludic action, but the difference in the attendant animation result in the action registering as a very different CS in the respective cases.

Once again, animations are not a factor at all in *Gone Home*. However, in *The Last of Us*, Joel's animations serve to reinforce many of the characteristics suggested by his physical appearance. His movements are heavy and deliberate, revealing a steady, meticulous character, but also one who performs actions swiftly, decidedly and forcefully. The gruesomeness of the animations whenever Joel performs a violent action – such as strangling a human enemy, or smashing a clicker's face in with a brick – are equally significant. We can read "confidence" and "experience" in the efficiency of the actions, and, in their cold brutality, also an indication of a character who has grown desensitized to the violence that is necessary for his survival.

Contextual elements

i) Possessions

The objects a player-character has in their possession can function as vehicles for CSs. In *Beyond Good & Evil* (Ubisoft 2003), for example, Jade's possession of a camera metonymically indicates her journalistic professional background. This applies both to objects that are modeled as meaningful components within the game system, that can be picked up, used, carried in the character's inventory or be otherwise interacted with, and to objects which are not part of the game system and exist only as semiotic "window dressing": to use the ontological distinction proposed by Espen Aarseth (2007), both representational and represented objects can convey CSs as long as they are in some way associated with the character in question. In *Deus Ex: Human Revolution* (Eidos Montreal 2011), for example, the books lining the shelves of player-character Adam Jensen's apartment, even though they are little more than a texture on the wall, act as a particularly effective exposition for Jensen's interests and preoccupations.

At the beginning of *Gone Home*, the only objects in Katie's inventory are her passport and her flight ticket. Both items – together with the travel bag laid on the porch in front of her feet at the game's opening – serve to contextualize her arrival at her family's new home after a long period of absence, filling in the details of a year spent traveling around Europe. We might also read these as indications of an adventurous, open-minded personality. Joel's possessions, on the other hand, are comparatively scant, and constitute only what is necessary for survival in the hostile post-apocalyptic environment – a flashlight, a gun, a limited supply of ammunition. Again, the indication here is of an individual who, whether by natural inclination, by the demands of his situation, or by some combination of both, eschews anything but the bare necessities of survival.

ii) Environment

Much can be gleaned regarding a character based on the physical setting in which, by necessity or by choice, they find themselves. The idyllic, Arcadian milieu of Hyrule reveals as much about Link in *The Legend of Zelda: Ocarina of Time* (Nintendo 1998) as the opening tour of the Black Mesa Research Facility in *Half-Life* (Valve 1998) tells us about the kind of life led by Gordon Freeman. This is particularly true of games which allow the player to explore their character's home: *Heavy Rain* (Quantic Dream 2010), for example, uses domestic spaces as an efficient means of conveying its player-characters' lifestyle, habits and preoccupations. Ethan Mars' personal crisis following the death of his son and his separation from his wife is expressed through a contrast between the bright, airy, clean-lined home he lives in at the start of the game, and the dingy, disorganized tenement he moves into after the incident.

At face value, *Gone Home* is a game entirely about Katie returning home – however, due to her family having moved house during her time in Europe, the house she is returning to is not, strictly speaking, her own. The room prepared for her is still unlived-in, full of stacked-up boxes still to be unpacked. This frames Katie's traversal of the house as an exploration of an unknown milieu, rather than as the titular homecoming. Importantly, this aligns her unfamiliarity and curiosity about the space with the player's own, making it easier for the player to inhabit the subject-position she represents (Vella 2013). At the same time, this dissociation from her family home can also itself be read as a CS, revealing her traveler's alienation from the once-familiar setting she has returned to.

At the start of *The Last of Us*, the environment Joel has to exist in – the military-policed quarantine zone, with its strict rations and regulations, and the dangerous ruined city that surrounds it, ridden with armed bandits and with the infected – contextualizes much of what we have read into Joel's own representation, making more sense of his weathered appearance, his utilitarian clothes and possessions, his weary voice and his determination.

iii) Role

What is the character's role in their environment? Here we might consider such factors as a character's job or profession, their belonging to organizations or groups of any kind, and the relations between the character and non-player characters (NPCs).

As a college-age young woman from what appears to be a reasonably affluent family, Katie's decision to take a gap year and travel around Europe instantly frames her – however right or wrong this framing might be – as a recognizable stereotype. It signals "adventurousness", but in a predictable, conventionalized gesture. More interesting are her relationships to the members of her family. We have already touched on Katie's alienation from her family resulting from her time away – though the postcards found

throughout the house mark an effort to retain contact, and the personal comments addressed to individual members of the family suggest intimacy and a keen observer's eye. Moreover, Katie appears to play the role of a confidant to her younger sister Sam, who trusts her enough to share her deepest secrets and feelings with her.

At the start of the game, the player learns that Joel is a smuggler, working within a criminal underground to deliver goods through the borders of the quarantine zone. Later, when Ellie and he arrive in Pittsburgh and are ambushed by a gang of desperate bandits, Joel reveals that he had been involved in such ambushes on unsuspecting survivors himself in the past. This might lead the player to ascribe to him traits of amorality, unscrupulousness or – more mildly – opportunism driven by necessity. However, during the course of the game, against the background of this shadowy past, Joel is, to a considerable extent, defined by his relationship with Ellie once she is placed under his care. It is on the ambiguous implications of the relationship – which can be called paternalistic and protective, but also, less charitably, possessive and obsessive – that Joel's characterization is founded.

Ludic elements

The sub-category of static mimetic elements we are terming "ludic elements" is a particularly interesting one, and, thus, warrants a preliminary elaboration. In the introduction to this paper, we noted a crucial distinction between the game component under the player's control and the character as a possible individual implied through a network of signification. However, it is precisely through being represented by a game component that the player-character gains one of its most prominent medialities. In other words, the attributes of the player-controlled figure as a game component – its capabilities and limitations in relation to the other entities in the gameworld, the procedures by which it functions within the game system – can themselves become a vehicle for characterization. As such, unlike the other categories of CSs we have considered so far, CSs based on ludic elements, as the name suggests, operate through a mediality that is strictly unique to games.

As has already been stated, Lankoski, Heliö and Ekman's model presents us with an involved analysis of this layer of characterization. Their categorization of the methods by which the work of characterization may be embedded within the ludic structures of the game and the processes of gameplay is inevitably in the background of the one presented here for this sub-category of static mimetic elements.

i) Capabilities and Limitations

Considered as an avatar, the figure under the player's control is, to a great degree, defined by the capabilities it grants the player to affect the other entities making up the gameworld. This is the sense in which Newman speaks of avatars, instrumentally, as "sets of capabilities, potentials and techniques offered to the player" (2002). For our current purposes, however, what interests us is how these capabilities can be put in the service of characterization. The assertion I would like to make is a straightforward one. Once we agree that the game component we have referred to as the figure can, when considered through a diegetic frame, be grasped as a character, then it must follow that its attributes as a game component, framed through the same diegetic perspective, must be understood as representations in a ludic mediality of that character's abilities in relation to their world – and, hence, an especially direct and revealing form of CS. The consideration of the figure's game-systemic affordances as defining the nature of a

player-character as character also has an inverse aspect. If the player-character is defined by what they can do in the gameworld, they are equally defined by what they cannot do. Lankoski, Heliö and Ekman's model accounts for this: they state that "limiting a player's freedom is an effective and frequently used method of creating personality to [sic] the protagonist character" (2003, 2).

Katie's capabilities in *Gone Home* do not go far. Apart from the basic spatial abilities of looking and moving conventionally associated with the first-person perspective, the only capabilities she has are picking up and examining objects in the environment, and interacting with household objects by means of a single, context-sensitive "use" command (for instance, turning light switches on or off). Where Katie's abilities go beyond this basic set is in her capacity to scrutinize objects: when Katie picks up an object, she can zoom in to examine its details, and rotate it to view it from every angle. With progress in the game depending on scouring mundane items – crumpled notes and receipts, old magazines and school assignments – for clues, this close scrutiny becomes a major aspect of Katie's character, as we perceive it in the game: we might deduce from this a CS defining Katie as a good observer, or as a meticulous personality.

Joel's capabilities in *The Last of Us* are largely defined by the game's adherence to the third-person action-adventure genre. As such, the ability to walk, run, move stealthily, take cover, use firearms and engage in melee combat constitute the standard set of for this genre: if we are to identify any meaningful CSs here, they must lie either in idiosyncratic emphases or nuances within this conventionalized set, or in the way(s) in which these affordances are contextualized. In the first case, the two additions to the generic action-adventure set of affordances are Joel's "listen mode" – effectively similar to x-ray vision, allowing the player to identify the locations of enemies hidden behind walls – and his ability to pick up the discarded bottles or bricks littering the gameworld and put them to a variety of uses, throwing them to create a distraction or using them as projectile or melee weapons. Taken together, these affordances emphasize a strong sense of spatial and environmental awareness, privileging careful, studied planning. In the second case, the orientation of the essentially violent set of affordances towards a setting which, as we have described, is almost constantly life-threatening frames the violence, at least initially, as necessary, desperate self-defense rather than as unwarranted aggression – though, as these acts of violence accumulate and escalate throughout the course of the game, the player might be forced to reconsider this initial assumption about Joel's attitude towards his own violent acts.

ii) Passivities

It is not enough to consider what the player-character can and cannot do in its relation to the other entities in the gameworld. Crucial to their status as individuals inhabiting a world is their capacity to be influenced by other entities in the gameworld. Klevjer illustrates this point by arguing that Lara Croft is not only defined by the "ability to jump or walk", but also by being open to the "risk of *falling down* the ravine" (2012, 18). As such, player-characters are also defined by what we might term their *passivities* – the ways in which they are passively open to the influence of other entities in the gameworld. Most often, this influence is a negative one, as in Klevjer's example, but it is not necessarily so.

Once again, Katie appears to be quite limited in this regard: she is not physically affected in any way by any other entity in the gameworld. Joel, on the other hand, is vulnerable to a great number of threats presented by his post-apocalyptic milieu and its inhabitants. A

face-to-face encounter with the more dangerous types of infected frequently results in instant, unavoidable death. There are also numerous environmental threats: areas infected by fungal spores require Joel to put on his gas mask or risk infection, and he is also liable to drown in the frequent sections where he must venture underwater to clear a path ahead. This fragility in the face of an extremely hostile environment further contextualize Joel's affordances, framing them even more clearly as the necessary way of life he has had to adopt in order to survive.

iii) Goals

The player-character's capabilities are not meaningful in isolation: they gain their significance through being set to work towards a goal or set of goals (Vella 2013, 6). The same is true of passivities, that only gain meaning through being understood as hindering or facilitating the achievement of the goal/s in question.

These goals – whether set by the game or self-imposed by the player – are, by definition, the player's own, ludic goals. At the same time, however, they can also be attributed to the player-character as a possible non-actual individual: this mirroring results in what Petri Lankoski termed a "goal-related engagement" between the player and her character (2011, 297). More importantly for our current purpose, this means that the ludic goals assigned to the player, when grasped as the player-character's goals within the gameworld, can serve as yet another CS layer – "goals are a very powerful tool of presenting the nature of a character" (Lankoski, Heliö & Ekman 2003, 5).

Katie's goal in *Gone Home* is investigative: she is placed in the detective role in a textbook example of an embedded narrative structure (Vella 2011, 8), piecing together events that took place before her arrival on the scene. Her goal, then, is to deduce the events that have taken place in her family's life during her time away. As a CS, this is open to being read in a number of ways: it could be interpreted as connoting nothing more than an idle, detached curiosity on Katie's part, or it could be read as her displaying worry and concern for her missing sister.

Joel's overarching goal is to protect Ellie, and to escort her safely to the end of the game: this frames his capabilities for action and violence in a very different perspective compared to if these capabilities were employed towards ensuring only his own survival. Where these capabilities – and the actions that result from putting them to use – could have been read as simply demonstrating a fierce hunger for survival and a drive for self-preservation, they are instead recontextualized as demonstrating paternal care and protectiveness.

DYNAMIC MIMETIC ELEMENTS

In Margolin's model, CSs addressing dynamic mimetic elements are those which refer to "verbal, mental or physical acts" performed by that character (1986, 206): actions serve as indexical signs for particular traits in the individual personality by which they are produced. Margolin argues that this is true not only of physical acts, but also of verbal acts – referring not just to the linguistic content of a character's speech, or even to paralinguistic elements such as tone of voice, but, rather, subsuming both to an understanding similar to John Searle's speech-act theory (Searle 1969). If we are also made privy to the character's inner life, then purely mental acts (what a character thinks, decides, plans, wonders, etc.) can also constitute meaningful CSs.

In relation to the characterization of the player-character, it is necessary to make a distinction between two sub-categories of CSs addressing dynamic mimetic elements. We shall term these sub-categories *character actions* and *player actions.*

Character actions

This constitutes the less conceptually problematic of the two sub-categories of dynamic mimetic elements. In most games, there is a set of actions performed by the player-character without any input from the player. This might include, for instance, actions the player sees the character perform when she is, to use Newman's terminology, "off-line", not actually playing: for instance, during a cutscene, or in the form of an idle animation that is triggered if a certain amount of time elapses without player input – Sonic's impatient foot-tap in *Sonic the Hedgehog* (Sonic Team, 1991) is a particularly iconic example of the latter. The verbal acts that constitute a character's voice-over – such as Garrett's vocal interjections in *Thief* – would also be considered under this category. This can also include actions taken by the character during play – that is, to use Newman's term, during the player's "in-line" engagement (2002); while exceptional, cases exist where the player-character refuses to follow the player's input, perhaps performing a different action of their own accord. Guybrush Threepwood in *The Curse of Monkey Island* (Lucasarts, 1999) is representative of this. Such actions are unequivocally to be attributed to the character rather than the player, and, as such, can easily be taken as strong CSs whenever they occur.

With no cut-scenes or other form of off-line sequence, the instances in *Gone Home* in which Katie performs an action of her own accord are few – in fact, precisely six in total – but revealing. Mostly, these fall under the category of mental acts, representing Katie's thoughts on the situation at hand by means of short text interjections on-screen. One of the first objects found in the course of the game, concealed in a trunk on the porch, is a duck-shaped festive ornament. When the player picks it up, we read Katie's thought on the matter, which is simply, "Good ol' Christmas duck" - a throwaway statement that reveals Katie's nostalgic relief at returning home after her time away.

The remaining character actions build a clear, linked pattern. When searching her father's library, the player-as-Katie finds pornographic magazines hidden in a box beneath copies of his novel. Here, Katie's thought, marked with, we might imagine, embarrassment or disapproval, is, "Gosh, dad." The situation is repeated, to cumulative, even comic, effect, when a *risqué* magazine is found hidden at the bottom of the wardrobe in Sam's room ("Gosh, Sam"). Later, if the player decides to look through the drawers in Katie's parents' bedroom, a condom is discovered in the underwear drawer ("Gross") and a self-help guide to improving one's married sex life is found in the ensuite bathroom ("Ugh").

Already a pattern is established that defines a distinct character trait, albeit one that the player might construct in various ways: as a sign of Katie's discomfort about sexuality, for instance, or, more specifically, as embarrassment at discovering her family's intimate secrets. The most noteworthy character action on Katie's part, however, is the final one, occurring when a torn-out page from Sam's diary is found crumpled up in a waste-paper basket. When the page is picked up, it is, as usual, displayed on-screen; however, the player is barely given enough time to skim the first few sentences, and get an idea of the subject of the page – in which Sam describes her erotic feelings towards Lonnie as their relationship grows more intense – before the page is automatically closed, with Katie commenting, "Okay, that's enough of that." If the player tries to "use" the note again to continue reading, Katie flat-out refuses to do so, giving only the comment: "I…no."

Where *Gone Home* is minimal in terms of character action, *The Last of Us* is maximal. Thanks to a wealth of cut-scenes, as well as to Joel's numerous pre-scripted in-line conversations with Ellie and other NPCs, many of the actions that prove most crucial to Joel's characterization are character actions that are not the result of player input. As a result of this, there are far too many individual character actions for us to present an action-by-action analysis on a similar level of granularity for the game as a whole. Instead, to provide an illustrative example, we can focus on a sequence of crucial character actions which occur in the game's closing moments.

Rather than allowing Ellie to be killed in a medical experiment to extract the source of her immunity, Joel violently infiltrates the headquarters of the Fireflies organization in order to rescue her, finally killing Marlene, the leader of the Fireflies, in cold blood to prevent her from ever attempting to track them down. Subsequently, he lies to Ellie about these events, leading her to believe the Fireflies let her go because there was no way of using her immunity as the basis for a vaccine. This sequence consists of a number of distinct acts which are crucial to the determination of Joel's character:

i) Joel decides saving Ellie's life is more important than a chance to obtain a cure for the fungal epidemic that is driving humanity to extinction. This mental act can be read as the final indication of his fatherly devotion to Ellie – a devotion which can be linked to the loss of his own daughter in the first days of the plague. Less positively, it can be read as the sign of his obsessive need to atone for his perceived failure to protect his own daughter, being willing to potentially put the entire future of humanity at risk in order to fulfill his own emotional need to care for Ellie.

ii) Joel shoots Marlene. This physical act, while, superficially, no different from the many murders Joel has committed during the course of the game in order to survive himself and to protect Ellie, bears a pronounced dramatic effect. Through Marlene's own characterization, she has been framed as level-headed, sympathetic, and idealistic; we learn that her decision to allow Ellie to be operated on was agonized over, leaving her wracked with guilt and self-doubt. In her confrontation with Joel, she is determined, but reasonable, conciliatory, and non-violent. Moreover, as the leader of the Fireflies, Marlene appears to embody one of the main hopes for the establishment of an alternative post-epidemic social arrangement to the military's totalitarian rule. Joel's decision to kill Marlene in cold blood when he realizes he cannot sway her therefore serves to reinforce the traits of obsession and ruthlessness that have already been suggested.

iii) Joel lies to Ellie about what happened. This verbal act can be interpreted as a final instance of Joel's paternal attitude towards Ellie, shielding her from the guilt and self-doubt she might feel if she knew the truth. On the other hand, we might just as validly read this final action – with which the game ends – as a means for Joel to avoid confrontation with Ellie and to keep her enmeshed to him in a paternal relationship on which he has become emotionally dependent.

Player actions

In the vast majority of games, however, those acts we have defined as character actions constitute no more than a very small sub-set of the complete set of actions we can attribute to the player-character. Much more numerous are those we are terming *player actions*, being dependent on player input and, as such, unlike character actions, being perceived by the player as being her own as much as they are the character's. The fact that this category of dynamic mimetic elements is labeled "player actions" is not in any way meant to insinuate that these actions are to be considered less relevant to characterization. It is only meant to differentiate these actions from those character

actions which are performed independently of the player. As Westecott (2009, 1), Bob Rehak (2003, 107) and Marie-Laure Ryan (2006, 190) point out, games re-present to the player a mediation of the game actions she herself performs; as such, player actions themselves become signs in the semiotic structure of the game, and, in the process of characterization, are weighed just as much as character actions. As Lankoski, Heliö and Ekman point out, "as the player controls the character, the actions the player takes in the game also define what the character is like" (2003, 3).

Katie, as befits someone in the role of an investigator unearthing an embedded narrative (Vella 2011), is primarily receptive – she searches, she reads, she moves from room to room trying to piece clues together. It could be argued this further emphasizes the sense of estrangement and alienation she feels towards her family after her time away, and her desire to reconnect with their lives. Meanwhile, the player's actions as Joel – with play following a pattern of exploration of a sequence of environments in search of supplies, alternating with encounters with enemies that can be approached with stealth or with brute force – again play into the set of character traits we have identified: his methodical, structured awareness of the situation, his ruthless efficiency and his level-headed approach to dangerous situations are all enacted in play. Furthermore, in the player's constant need to be aware of Ellie's location and status during combat – initially in order to ensure her safety, but, as the game progresses, also, increasingly, as a tactical ally – we can read both an underlining of Joel's protective, paternalistic attitude towards Ellie, and also the gradual (but never complete) shift in his attitude towards her as he begins to trust her with more responsibility.

FORMAL TEXTUAL PATTERNS

This is the most vaguely-defined category in Margolin's taxonomy, covering "grouping of [narrative agents]; the analogies, parallels or contrasts between them created by such groupings; repetitions or gradations, and various stylistic features associated with their introduction or occurrence" (1986, 206). Here, we shift focus: from looking at *what* about a character is represented, here we look at *how* it is represented, paying attention to formal techniques and the deployment of aesthetic, generic and medial codes.

A couple of examples of the kind of formal techniques which might be included in this category might suffice as an illustration. We might consider, for instance, the extent to which Katie's characterization is driven by a sustained contrast between her and Sam. This is most evident in the juxtaposition of their images in the family portrait: aspects of Katie's appearance which appeared neutral or unremarkable in isolation gain semiotic relevance through contrast with Sam. Katie's stylistically conservative black dress stands in contrast to Sam's flannel shirt, which aligns the younger sibling with the grunge and riot grrrl subcultures. Sam's androgynous outfit also serves to make the relative femininity of Katie's dress semiotically relevant. Moreover, other explicit parallels are made throughout the game. At different points, the player finds copies of the same homework assignment – a biology exercise in which sentences have to be placed in the right order to give an account of the female reproductive cycle – filled in by both sisters. Katie's assignment is filled in correctly; Sam's incorporates the sentences into a Second World War narrative in which the protagonist's fiancé is killed in a bombing raid, paralleling the protagonist's grief and subsequent resilience to the biological process of menstruation and ovulation. The CS that is implied in the contrast between the two assignments – Katie as straight-laced, Sam as artistic and rebellious – is obvious.

In the opening scene of *The Last of Us*, a common formal technique for introducing the player-character is exemplified in a particularly striking fashion. Initially, the player is given control of Sarah, Joel's young daughter: as such, the player's initial experience of Joel is an external one. This prologue plays a vital role in Joel's characterization – not only because Sarah's death at the end of the sequence allows us to consider long-gestating sentiments such as grief and guilt as being central to Joel's character, but also because it presents Joel to the player in the mode in which, once the player takes control of him, he will adopt towards Ellie: paternal, protective, level-headed, resourceful. In essence, before the player picks up Joel's controls, he has already been established as a character through being framed from an external perspective – an effect similar, if more pronounced, to that which is often achieved in games through an intro cutscene.

THE 'PLAYER' IN 'PLAYER-CHARACTER'

By their very nature, characters are never available to us as figures whose outlines are completely shaded in – as Price notes, "fictional characters are only partially specified" (1983, 57). Having completed both games and seen the processes of characterization and character-building through to the end, there remains much we do not know about Joel and Katie. This applies not only to background biographical detail – say, where Joel was born, or what Katie's favorite food is – but also to aspects of the respective characters that are crucial to the events occurring in the course of the game. It is never specified, for instance, whether Katie, in piecing together the details of Sam and Lonnie's relationship, shares their parents' disapproval of the same-sex relationship, or whether she holds a more open-minded attitude on the issue.

To a great extent, of course, this is due to the inevitable fact that characters are, by their very nature, "ontologically 'thin' and not maximal, having only a limited number of properties and relations" (Margolin 1990, 847). But there is an additional factor at play here. Though it has been the focus of this paper to arrive at a semiotic-structural model that addresses the player-character as a composite of textual signs in all the various medialities offered by a digital game, the question of the role of the player in this process needs to be acknowledged. After all, it is on the crucial point that a character does not exist as a fully-defined semiotic entity until actualized by player input that the ontological nature of the player-character is set apart from other formulations of character.

Both as an indication of how the model we have proposed can fit into a more complete understanding of the player-character, and as a signpost towards future directions for theorizing the player-character, we shall briefly consider two important insights that result from a fuller consideration of the role of the player. Firstly, the player always has some degree of input, no matter how minimal, in the shaping of the set of CSs that constitute a player-character's textual substrate. Depending on a particular player's actions – and even accounting for the fact that the limited set of affordances for action act a constraint in this regard – different playthroughs might produce very different sets of player action CSs, and, hence, different characterizations. A player of *The Last of Us* might favor Joel's affordances for stealth and spatial awareness, patiently assessing every situation and avoiding confrontation and violence where possible. Another player might instead make a point of eliminating every hostile individual encountered. The available affordances allow for both styles of play, but the Joel that results from the first playthrough is, in an important way, different from the Joel that results from the second, even with all the other CSs that go into his constitution remaining unchanged.

This renders the player-character, as a semiotic construct, incomplete in an entirely different sense to the incompleteness of character identified by literary theorists like Margolin, Price or Alan Palmer, who writes that a character only exists as a character once the reader "collects together all of the isolated references to a specific proper name in a particular text and constructs a consciousness that continues in the spaces between the various mentions of that character" (2004, 176). This difference is predicated on the ergodic nature of game textuality (Aarseth 1997): since the user function of the player, unlike that of the novel reader or the film viewer, is configurative rather than purely receptive, the complete set of CSs that constitute a player-character's textual substrate is not present and accounted for from the start – as it would be for a character in a novel or a film – but is only fully determined once the player's selections and ludic actions have traced out a path of traversal through the network of possibilities offered by the game. This suggests a modification to our understanding of the constitution of the player-character, framing it as containing both a set of fixed CSs and a mechanism for the generation of further CSs that, during the course of a given playthrough, come together into a unified set of CSs which, together, are interpreted by the player in the form of a possible non-actual individual. The implication of this is that, if two players both play *The Last of Us*, two different sets of CSs will be produced, sharing many of their elements, but, crucially, not all, given that the sets include within them different respective sequences of player actions. Let us say that the first set of CSs, produced from the first playthrough, results in an image of a character we can call $Joel_1$. Meanwhile, the second set of CSs, produced from the second playthrough, results in an image of a character we can call $Joel_2$. In other words, when speaking of a player-character as a possible non-actual individual, we are speaking specifically of the character as actualized in one given playthrough: before this actualization, there is no character to speak of, only the framework for one.

The second observation to make in the relation of character to player concerns the question of mental acts. We have already observed a number of ways in which the mental acts of a player-character can be communicated to the player – for instance, through formal techniques such as the interior monologues utilized in games such as *Thief* or *No More Heroes* (Grasshopper Manufacture 2008), or through the way in which physical or verbal actions can serve as indications of mental acts, as in the case of Joel's decision regarding Ellie's future. However, if mental actions are perhaps the purest indication of the irreducible, individual interiority that constitutes the essence of a character – the "precious remainder" that Barthes identifies (1974, 190) once the simple accumulation of textual signs have all been taken into account – then we need to keep in mind that the figure in question is one in which two such individual interiorities meet: that of the character and that of the player.

The intersection between the two in the same figure is a theme that requires more involved attention than it can be given here. For our current purposes, however, it is pertinent to consider to what extent we can speak of the player's own phenomenal experiences of the gameworld as being attributable, through a representative relation, to the player-character. In this sense – though a simple one-to-one attribution of the player's mental acts to the character is out of the question - we would need to adapt the structural-semiotic model of the player-character to include, say, the player's fear when hiding from a clicker in *The Last of Us*, or her shock and concern for Sam when noticing what appear to be bloodstains in the bath in *Gone Home* – considering these as being relevant not just as first-hand phenomenal experiences on the part of the player, but also, at the same time, as representative signs for equivalent mental acts on the part of the character.

CONCLUSIONS

It has been the intention of this paper to address the lack of a solid conceptual foundation for the notion of "character" as it is used in the term "player-character", thereby filling a gap in the game studies discourse. In summary, the understanding of the player-character *as* character that this paper proposes involves two primary insights. First, we highlighted the dual ontology of character, as both a possible non-actual individual and as an accumulation of semiotic cues from which this individual emerges as an abstract construct. Secondly, a structural-semiotic model was proposed in order to trace the various medialities operating in unison to deliver these cues.

This paper should not be taken as proposing a privileging of the discourse of the player-character over the discourse of the avatar, or to suggest that thinking of the player-character covers everything we need to know about the relation between the player and the figure under her control. In fact, our concluding insight is that this semiotic structure cannot be considered in isolation, and that the player-character as a semiotic totality is only available once it is actualized by the player. The next theoretical step, then, would be to incorporate the notion of character back into the wider discourses of the playable figure, from which we extracted it at the start. Having now been more rigorously defined, and carrying with it the ontological and semiotic implications we have mapped out, this understanding of character can now be of service in game studies' tackling of the complexities – ontological, phenomenological, narrative and otherwise – of the playable figure.

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