# Chapter 2: Simulations, games and make-believe

In this chapter I will discuss the differences and overlaps between games, simulations and diegetic fictions as distinct cultural forms. Drawing on the theories of Kendall L Walton, Marie-Laure Ryan and Gregory Bateson, I suggest a concept of fiction that is based on simulation and play, and which provides analytical tools to distinguish between different modalities and principles of participation in different media. In particular, the idea that fictional participation is a practice of re-positioning or 're-centring' – whether in the worlds of paintings, books or children's games of make-believe – is particularly useful for rethinking the relationship between players, avatars and fictional worlds in computer games.

## Procedural representation

Any implementation of a model is a simulation. A model is, following the standard military use of the term, "A physical, mathematical or otherwise logical representation of a system, entity, phenomenon, or process"[7]. This definition covers all models, from scientific climate models to Barbie dolls or model cars. A simulation represents the world not through description, narration or argument, but through the construction of a model that is meant to in some respect mirror the underlying regularities of selected phenomena, events and processes in the world.

Espen Aarseth argues that simulation is a highly distinctive type of discourse, quite unlike other forms of communication. He calls it a 'virtual hermeneutic', emphasising that the simulation represents an ever more influential alternative to the established story-mode of understanding the world. The simulation represents, Aarseth argues, a distinct way of interpreting and understanding the world (Aarseth 2000). From the point of view of semiotics, Umberto Eco, even if he is not addressing simulations directly, notes that certain forms of sign-relations are established on the basis of an 'identity of function'; a broom handle stands for a horse not via an iconic relation, but because it can be straddled. A broom

7 See *Online M&S Glossary*, Defense Modelling and Simulation Office, at https://www.dmso.mil/public/resources/glossary/ [accessed 25. July 2005].

handle can be used as a substitute ('Ersatz') for an actual horse because it "serves an analogous function" (Eco 1976:209).

A simulation re-constructs (in some respects) a behaviour that we can recognise as familiar from the world outside the simulation. It does so by using models, which are functional or in some way 'logical' representations. Models can be abstract (a mathematical model) or concrete (a tin soldier)[8]. Traditionally, models can only be implemented by humans, who run simulations for the purpose of play, training and cultural expression (as with Eco's example of the broom handle). However, *algorithmic* abstract models are built as a system of instructions and procedures that can be implemented by computers as well as by humans. Computer simulations are simulations that are run by computers (which are simulating machines or 'simulators'), or by humans and computers in concert. Taking a cue from Janet Murray's categories in *Hamlet on the Holodeck* (1997), we may say that a computer simulation is a 'procedural representation'; the world interpreted in terms of a system of instructions or rules (Klevjer 2002:200)[9].

## The worlds of play

The majority of games are in fact also simulations (although not necessarily computerised simulations), because they are governed by sets of rules that model some phenomenon in the world. Chess, for example, models the conflict between two forces on a battlefield (the board). As a model it may leave a lot to be desired in terms of scope, detail and accuracy, but it still qualifies as an abstract, procedural representation. This does not mean that all games are simulations, or that all simulations are games. Simulations do not necessarily stage or prescribe a contest between the participants. They do not necessarily, as games do, model a conflict,

8 A concrete model is "A model in which at least one component represented is a tangible object; for example, a physical replica of a building." For definitions of terms of simulation and modelling as they are used by the US military, see Online M&S Glossary by the Defense Modelling and Simulation Office (2005).

9 *Hamlet on the Holodeck* focuses on narrative structure and narrative agency in 'cyberspace' – that is in digital environments of all kinds, from sprawling databases to VR installations. All these computerised environments have, Murray suggests, four essential properties. They are 'procedural', 'participatory', 'spatial' and 'encyclopaedic' (1997:71). My own adaptation of the concept of 'procedural representation' is also a more generalised version of the term as it can be found in the field of computer graphics. See David D. Grossman's "Procedural Representation of Three-dimensional Objects" (1976). Salen and Zimmermann (2004) make use of the same concept, expanding considerably from the basic idea by discussing various implications for game design.

and they do not have to define a goal for the participants in terms of a winning or loosing condition[10].

Nevertheless, both simulations and games establish a separate realm of activity that is governed by a set of formal procedures. The activity is motivated in the external reality in which they exist as sub-systems, and the activity may even have very serious implications beyond the boundaries of the system itself (think of for example Russian roulette, gladiator contests or military simulations). The important point is that this relationship will always be, as Jesper Juul (2005) points out, 'negotiable'; the participants define the real-world consequences in advance. They can do so because games and simulations are autonomous systems of meaning with clear (although permeable) boundaries, and therefore are meaningful in themselves; Russian roulette may well be played with harmless blanks, and military simulations are often enjoyed on the couch, with cheese doodles.

With games as well as for simulations, their significance in relation to their contexts is premised on the fact that they possess a basic autonomy. This autonomy, according to Johan Huizinga (1955[1950]), is no less than the historical and aesthetic essence of *all* kinds of competitive play; all artificially staged contests. The key quality of play is irreducible, Huizinga argues; its meaning cannot be attributed to any purpose outside play. Play is meaningful in itself. Autonomy and non-instrumentality is at the heart of the 'play function' in culture, a principle which can be traced in all human activity through history. The essence of play, states Huizinga, with reference to the religious and ritualistic practices of pre-modern cultures, is the encapsulation of imagination and conflict within a *magic circle*. The magic circle signifies a separate realm of internally defined meaning, a 'world' of objective and shared truths within which the participants make serious intellectual effort and emotional investment. This is the familiar paradox of games – they mean nothing (because a game is just a game), yet seen from the inside of the magic circle they mean everything.

Play becomes serious, sometimes even deadly, not in spite of but *because of* its characteristic as a separate realm, according to Huizinga. The magic circle is a 'sacred circle', rooted in the rituals and contest of archaic cultures.

> The arena, the card-table, the magic circle, the temple, the stage, the screen, the tennis court, the court of justice, etc., are all in form and function play-grounds,

10 In literature on games well as in the newer literature on computer games there are a variety of definitions as to how games are different from playful activity in general. All of them in one way or another emphasise the importance of conflict, as well as a winning condition or alternatively a 'negotiable and quantifiable outcome' (Juul 2005). See Salen and Zimmerman (Salen and Zimmerman 2004) for a review of definitions found in the literature.

> i.e. forbidden spots, isolated, hedged round, hallowed, within which special rules obtain. All are temporary worlds within the ordinary world, dedicated to the performance of an act apart. (Huizinga 1955[1950]:19)

It is precisely the meanings guaranteed by the principle of the magic circle that make the practices of ritualistic contest, warfare, law, poetry and philosophy possible. Modern computer-simulated systems tap into this same cultural realm of meaning. Through their self-contained detachment, they bring forward the autotelic 'play function' in (or of) culture. This cultural heritage partly explains why we will always encounter, with any participatory dynamic model, the latent temptation of non-serious play; the invitation to fool around. Computer games do not abandon the didactic and scientific rationale of abstract models, but re-contextualise this rationale within the cultural realm of play, turning latent temptations into shameless pleasure. We could say that computer games are simulations in reverse: they draw on our familiarity with the world to empower us within the simulation rather than using the simulation to empower us to handle the world. The primary function of modelling in computer games is to provide a playground, a material magic circle, a pointless system of meanings.

It is because games and simulations present themselves to us as autonomous meaning-making systems that we sometimes refer to them as worlds. In everyday language, when given no further qualifications or specifications, the term 'world' will usually refer to something like 'the totality of our existence'. The degrees and modalities of metaphorical meaning vary from the presumably literal ('world' meaning our planet) to the more abstract (the 'world' of dating). All variants and shades of the term, however, resonate with the basic notion of totality; a presumed all-encompassing boundary, an outer rim that conditions meaningful practice. In the 'world' of dating, behaviours that would be ridiculous outside that game can still be perfectly meaningful within it. Equally, when we say that a person 'lives in his own world' it would typically mean that his behaviour (or a certain aspect of it) does not make sense to us. In order for something apparently meaningless to be able to make sense after all, it needs to bring its own world – its own sub-totality, its own magic circle – along with it. Given this premise, as Huizinga's detailed historical accounts illustrate, pointless exercises can generate all sorts of serious meanings and consequences in their interfaces with the outside world, and typically will do so – even if they do not depend on such consequences to be meaningful and engaging.

## Contest versus mimesis

The 'world' of the sacred circle captures a cultural modality that is common to games, simulated systems (whether serious or not) and to play in general. Still, imaginary worlds of literary or cinematic fiction do not easily fit into this picture. There seems to be, on a general level, a natural affinity between Huizinga's 'magic circle' and Coleridge's 'suspension of disbelief'. Both refer to an experience of – somehow – stepping into an alternative reality, a separate and encapsulating realm of meaningful experience. However, the concept of the magic circle does not address the phenomenon of *imaginary* worlds – let alone the worlds of narrative.

While Huizinga's magic circle allows for fiction and fantasy as a natural element of playful activity, the phenomenon of make-believe is not considered part of the core of play; it is not integral to the play-principle of culture. This principle, or cultural function, is an *agonistic* principle; its paradigmatic and originating form is to be found in the ritualistic contests of archaic culture. In *Homo Ludens* (1955[1950]), Huizinga never addresses the role of drama or storytelling as such, seen as separate from the functions of the contest. All play-derived civilising practices that he discusses throughout the book, including music and poetry, are described in terms of how they instantiate and develop the agonistic principle in culture. At heart, the 'magic circle' is a realm of artificial or 'staged' contest, not fiction.

In privileging the principle of the contest, Huizinga's theoretical perspective mirrors Roger Caillois' classifications of play in *Man, Play and Games* (2001 [1961]). Caillois focuses on play and games as concrete activities rather than any abstract 'function' or 'principle' in culture, and he is therefore interested in the mimetic as well as the agonistic elements of play. However, Caillois stresses the inherent conflict and incompatibility between agonistic and mimetic play[11]. If they mix, he argues, mimetic play will unavoidably ruin agonistic play, and vice versa. Huizinga, in contrast, never argues that the contest should be seen as incompatible with mimetic play, probably because he does not pay any attention to the 'worlds' of imagination and fiction at all. In any case, we can use neither Huizinga nor Caillois to argue that the 'world' of a game is similar to the 'world' of a novel or a film.

In spite of the potential conflicts between the two, games and fictions often blend into one single, autotelic realm of practice. In games, the world of the

11 In his influential categorisation of play-forms in *Man, Play and Games* (2001[1961]), Roger Caillois lists *agon* (competition), *alea* (chance), *mimicry* and *vertigo* (games of physical disorientation). Whereas the latter two belong to the category of free play ('paidiea'), the first two belong to the category of ludus, which includes formally rule-based and goal-oriented forms of play.

contest is often also an imaginary world, a world of make-believe, both dimensions converging in the principle of simulation. The marriage between contest and mimesis is absent from the majority of modern sports and contests, with a few major exceptions like wrestling or similar types of 'gladiatorial' entertainment contests that is generally not regarded as honest and serious competition. This confirms Caillois' observation that the mimetic and the agonistic do not mix well. At the same time, a natural relation between mimesis and the contest seems to be almost uniformly confirmed in the various ritualistic practices that Huizinga identifies as historically originating of the play-principle in culture.

## World as the diegetic

In the third book of the Republic, Plato distinguishes between *diegesis*, which is the practice of storytelling, and *mimesis*, which is the practice of imitation or dramatic performance (Plato 1941). The modern notion of the diegetic or the story-world, introduced by Gerard Genette (1980), is rooted in the same distinction, although re-framing it within a structuralist-linguistic understanding of narrative. For Genette, story ('histoire') is the *signified* of narrative discourse; the 'diégesè' that is constructed by the 'diegesis'. The notion of the diegetic is used as a basis for developing a theory of how different levels of the narrative relate to each other – different levels of 'worlds' in which the events of the story take place, and in relation to which the narrator can be positioned in different ways. In a 'homodiegetic' narrative, for example, the narrator is present as a character in the world of which he narrates (1980:245). Moreover, the diegetic level of the narrative (or 'intradiegetic' level) refers to the primary world as it is being signified by the narrative discourse.

Genette's notion of the diegetic, formulated in the early seventies, has been highly influential in shaping today's dominant understandings of what a fictional world is in film and literature. This influence is in no small part due to the adoption of the term into film theory via Bordwell and Thompson's distinction between 'plot' and 'story' in their introductory textbook *Film Art (1993[1979])*. Here they establish a distinction between diegetic and nondiegetic elements of a film, a distinction which has become common reference in film theory:

> For example, while the opening of *North by Northwest* is portraying rush hour in Manhattan, we also see the film's credits and hear orchestral music. Neither of these elements is diegetic, since they are brought from outside the story world. (The characters cannot read the credits or hear the music). Credits and such extraneous music are thus nondiegetic elements. (Bordwell and Thompson 1993[1979]:67)

Via the notion of the 'diegetic', the concept of 'story-world' is rooted in the semiotic distinction between discourse (signifier) and that which the discourse is about; its signified. What is distinctive to worlds of narrative fiction, according to this theoretical model, is that they are told[12].

Diegetic theories of narrative worlds of fiction implicitly accentuate the difference between play and fiction. There are few similarities between Huizinga's 'magic circle' and the idea of a 'story world' as constituted by narrative discourse. Huizinga's 'play-function' subdues the mimetic under the performance of agonistic practice. If there is at all any concept of fiction to be extracted from the historical and etymological studies of *Homo Ludens*, it would be that fiction – including stories – is something that we do, not something that is told or shown. Such a non-enunciative and non-narrative model of fiction would seem to fit simulated environments better than traditional mimetic or diegetic conceptions do. However, as I argued above, this model is premised on the cultural logic of the artificial contest. Huizinga is neither interested in fictional worlds nor narrative in particular.

We should note, however, that the linguistic model of narrative fiction also points to a contradiction that is inherent to the phenomenon of recounted narrative worlds. On the one hand, the primacy of language is asserted; narrative is a recounting, an utterance, a result of an act of enunciation. On the other hand, the 'world' that is established by this act has the capacity to present itself to us as a form of mimesis, as 'histoire', defying the enunciation that creates and upholds it[13]. It is as if – in the phrasing of Emile Benveniste – "No one speaks here; the

12 Bordwell and Thompson's use of the model in *Film Art* is not explicitly attributed to narratology (– their most direct reference is that plot and story is also "sometimes called "story" and "discourse""), and they do not make very clear what their own modifications to the original model is (66-67). In *Narration in the Fiction Film* (1985), Bordwell replaces the loose, structuralist theoretical framework from *Film Art* with a more precise and elaborate version of 'plot' versus 'story', based on the binary of 'syuzhet' and 'fabula' from Russian formalism. Here Bordwell makes the point that the latter distinction should *not* be confused with the story/discourse-model advocated by theories of 'enunciation' – a category in which Bordwell includes Gerard Genette (Bordwell 1985:51).

13 The concept of 'enunciation' was introduced to structuralist theory by Emile Benveniste. His notion of *discours* refers to the particular mode of enunciation in which the enunciation itself, as an act, is made visible, as opposed to *historie*, where enunciation is hidden. However it is Genette's modified variant of the concept that has given the dominant meaning to the English term 'discourse' in narrative theory. To Genette, all strings of utterances are 'discours', and the signified of narrative discourse – the story – can be compared to Benveniste's *histoire* in the sense that the traces of enunciation are expelled from it. For an introduction to central concepts in narratology as they relate to film theory, see *Narration in the Fiction Film* (Bordwell 1985), pp. 21-22.

events seem to recount themselves." (Bordwell 1985:21). In this sense, we can say that the 'world' of a story transcends the act of communication that it is a part of.

## Mimesis as Make-Believe

Kendall L. Walton's *Mimesis as Make-Believe* (Walton 1990) suggests a play-based theory of the nature of representation, but from a very different theoretical perspective than the play-theorists Huizinga or Caillois. Walton belongs to the Anglo-Saxon tradition of analytic philosophy. He seeks to account for the representational arts and the nature of representation in general, not the cultural role of play and games. Although imaginative play is used as the central model for understanding representation in the arts, Walton never makes any reference to Huizinga or to other theories of play from anthropology, sociology, pedagogy, philosophy or literary theory.

As a theory of representation, Walton's approach can be seen as pragmatic or process-oriented, even if he himself never uses those terms. It is motivated by the typical theoretical problems and debates within a branch of analytic philosophy often referred to as 'semantics of fiction'; questions that address the 'truth' of fiction and the relationship between fiction and reality. However, Walton does not rely much on the usual tools of the trade, largely discarding possible world theory and other standard concepts derived from formal semantics. Instead he builds his arguments from detailed examples which he refers to as the 'phenomenology' of art appreciation, including analysis of the language that is being used in everyday discourses to describe how we experience works of art and literature.

According to Walton, an object should be considered a representation neither in terms of a semantic relation (its reference), nor in terms of its role within a linguistic and communicative act, but because it has a specific purpose, namely to engage us in imaginative practice. Artistic representations (books, paintings, film, sculpture etc) should primarily be understood as *props* in games of make-believe, no different from children's toys and other tokens of imaginative play. This model implies that all representations – including factual representations – construct fiction. The defining function of a prop is to prescribe *fictional truths* in correspondence with the rules of the game, and these fictional truths evoke imagined objects and events[14]. Fiction is a function of our engagement with representations,

14 Walton's idea of fiction differs significantly from the general interpretation of the term 'fiction' as that which is not true, or, alternatively, as that which is not factual. All representations are fictions, Walton asserts; all are part of games of make-believe. A game of make-believe may be a factual, if that which is to be imagined is accompanied by a referential commitment to historical reality. Some fictional truths are claimed to be true, some are not.

understood as props. Imaginary realms, Walton argues, have nothing to do with language nor the specificities of narrative discourse.

It is important to note that, within the context of a rule-based game of make-believe, fiction is *prescribed* by (not inspired or suggested by) props and rules. Consider the following example used by Walton, in which Gregory and Eric, playing in the forest, have decided that all stumps are bears:

> They approach the bear cautiously, but only to discover that the stump is not a stump at all but a moss-covered boulder. "False alarm. There isn't a bear there after all," Gregory observes with surprise and relief. […] Meanwhile, however, unbeknownst to everyone, there is an actual stump buried in a thicket not twenty feet behind Eric. Fictionally a bear is lurking in the thicket, although neither Eric nor Gregory realizes the danger. No one imagines a bear in the thicket; it is not fictional that a bear is there because somebody imagines that there is. But it is fictional. What makes it fictional? The stump. Thus does the stump generate a fictional truth. It is a prop. Props are generators of fictional truths, things which, by virtue of their nature or existence, make propositions fictional. (Walton 1990:37)

The concept of fictional truth is at the heart of Walton's theory. If one does not accept a fictional truth, one is stepping outside the fiction, and choosing not to play the game anymore. The theory of fictional truth asserts that fiction is not, as common sense often seems to imply, something that resides in our imagination; it is not 'that which is imagined'. Props are generators of fictional truths "…independently of what anyone does or does not imagine" (1990:38). Fictional propositions, "…are propositions that are *to be* imagined – whether or not they are in fact imagined" (1990:39). A proposition that is 'made fictional' is made true in the world of the game. Once the wheels of the game have been set in motion, this truth does not depend on subjective imagination, but is an objective fact, generated by rules and props, and guaranteed by the autonomy of the game-world.

Walton's game-based theory of the representational arts can be related to a number of other philosophers and theorists who discuss artistic representation in terms of play and games[15]. It is important to emphasise, however, that Walton's work deals exclusively with the realm of representation, or 'mimicry' if we follow Roger Caillois' categorisation of game-forms (Caillois 1961). Walton does not include into his discussion the notion of play as contest. His area of interest is the representational arts, not play and culture. Still, I want to argue, *Mimesis of*

15 Roger Caillois (Caillois 2001[1961]), Gregory Bateson (1972), and Donald C. Winnicott in *Playing and Reality* (1971) all include art, music and literature as part of a broader notion of play. Several philosophers argue that play is central to art and philosophy – among them Kant, Nietzsche, Gadamer and Derrida.

*Make-Believe* gives us a valuable theoretical tool for analysing the role of fiction in simulation-based play. Indeed, it could be said that Walton's comprehensive conceptual model is a systematic attempt to re-define fiction as simulation.

## Fictional subjectivity: fiction as simulation

Unlike the play-theorists from the continental traditions of philosophy, anthropology and cultural history, Walton's theory of fiction is also a theory of immersion, and a theory of 'virtual reality'. A fictional world, he claims, is a game in which we as 'appreciators' are invited to participate:

> *We* are to imagine that Willy Loman lost his job, that Superman rescues people from tall buildings, and so on. Such imaginings are part of our games of make-believe, games that have their own fictional worlds distinct from work worlds. […] It is a mistake to think of appreciators as mere spectators of work worlds, observers from the outside of what is fictional in them. That leaves out our *participation* in games in which representations are props. (Walton 1990:208)

Walton's approach implies that there is no essential difference between how we engage with the 'fictions' of Monopoly or Scrabble and the fictions of a painting. The 'appreciator' of any work of art is a player in a game of make-believe and a participant in a fiction, much like a little girl who is playing with her paper dolls. The appreciator herself, in order to appreciate an artwork from the inside, as it were (in order to play the game), has to take part in the fiction by imagining about herself a *subject-position* that is fictional. When we stand in front of a painting and say for example "I see a ship in the background", we are able to say this (instead of saying "I am looking at a depiction of a ship") precisely because of this fictional subject-position. We are given the role of a prop whose behaviours generates fictional truths about itself; we become ourselves a 'reflexive prop' (1990:213) – like a toy truck that generates about itself the properties of a fictional car.

This reflexivity re-locates our subject-position within the boundaries of the game of make-believe, so that we become fictional subjects; the fact that I am looking at an image of a woman in *Mona Lisa* makes it fictional that I am looking at the woman Mona Lisa. The fact that I feel fear when I am looking at a monster in a horror film makes it fictional that I am afraid *of* the monster. Distanced observation, or "appreciation without participation" (Walton 1990:274) in which we detach ourselves from the fictional subjectivity that the painting encourages, becomes a secondary option, an activity of meta-reflection and as such a meta-game in relation to the primary game the painting invites us to join.

The theory of fictional subjectivity – which Walton elaborates on at length with respect to different kinds of representations and empirical situations – is an interaction-oriented and process-oriented theory of immersive fiction. It is not concerned with the relationship between the representation and the world, but the relationship between the representation (as prop) and the participant. It is a theory of *doing* fiction, a theory that emphasises how fictional truths are experienced as actual truths via the acts of imagination and perception. In discussing the 'in-game' appreciation of a traditional painting, Walton describes the various types of 'lookings' that we perform, and in what way different ways of looking translate to different fictional roles and positions as well as different mechanisms or modes of 'generating' fictional truths. For example, a painting is considered 'realistic' to the extent that my way of looking at it is analogous to the way that I actually look at objects and environments in the real world; the way I take in the whole before I start moving the focus across the canvas to inspect the individual elements, the way that I might move closer to the painting in order to discover fine details, and so on. When there are such analogies, the manner in which we interact with artworks is constituted as an object to be imagined, a fictional truth that is generated by the interaction itself.

Participation, then, in less technical terms, means *playing* the game of make-believe, as opposed to observing or analysing it. The essential and defining premise of all representations, according to Walton, is that role-playing is required. The kind of activity that is expected and permitted as role-playing varies between the expressive body-language of children's games to the highly restricted and (predominantly) contemplative participation in a game of for example reading Henry David Thoreau's *Walden*. In-game activities, Walton argues, will usually be fairly well distinguished from 'out of character'-interaction. Whereas, for example, kissing an icon would typically be considered in-game and part of the fiction, wrapping the icon up and taking it to storage would not.

Re-phrasing Walton's argument, we might say that representations – all representations – are essentially seductive in nature. They pull us into a role, a fictional subjectivity according to which we engage our thoughts and feelings. It is this subjectivity that, for example, makes it natural to feel deeply sorry for, even to cry over, the heroine in a well-crafted tragedy. Our fictional self laments her fate and desperately wants her to be happy instead. Seen from outside of the game of 'tragedy', however, we do not *really* want a tragedy to have a happy ending. Still, it would be absurd, as Walton points out, to consider appreciators of tragedy as accomplices to the sad and undeserved fates of their heroes, as if they were 'double-crossing' them by pretending to cry for them while secretly taking part in a plot to kill them. Once the game of tragedy is set up, as participants we cannot be blamed, because we are not responsible for the sad fictional truth. It is not that we want to save the heroine but cannot. Rather, within the game of the fiction, the

question of agency is irrelevant; we neither can nor cannot. Re-writing the ending would clearly not qualify as 'saving' the heroine. It would only destroy the game, and our imagined subject-position along with it.

## Work worlds

Walton's concept of the 'world' of fiction, in the primary instance, refers to the world of the game in which the representation is included as a prop. In the quote above, Walton points out that this kind of 'world', which is the world that is constituted through our *participation* with paintings, novels or films artworks, is distinct from the 'work worlds' of those artworks, as projected by the representation itself. Our games of make-believe "have their own fictional worlds distinct from work worlds." (Walton 1990:208).

Roughly, 'work-world' refers to any cluster or grouping of fictional truths within a game of make-believe that can be attributed to the objective properties of the particular representational work that is being used as a prop. A work-world of fictional truths is autonomous and non-negotiable, which means that its fictional truths will be prescribed in *any* game in which that particular representation is a prop[16].

However, in the context of the concerns of this thesis, the notion of the 'work world' is not primarily interesting as tool for defining the objectivity and shared nature of representation in artworks, but as a tool to distinguish between different *types* of props: what kinds of props have 'worlds', and which do not? When comparing across different forms, modalities and genres of representation – and especially if we are concerned with complex and relatively unfamiliar media forms – any concept that differentiates between species of props is potentially very useful. However, Walton does not provide any clear or definitive criteria for distinguishing between what we might call 'world-props' and other props – although novels or films would be fairly straightforward examples of the former. He leaves the question open as to what kind of prop-generated objective clustering of fictional truths can be said to constitute a 'world' in any given case. He notes

16 The concept of the work-world is somewhat less well defined than other and more central concepts in Walton's theory, but it still serves a function within his overall framework. It is necessary in order to account for the role of all-encompassing props like for example a novel in the game of 'reading a novel'. Without the notion of work-world, Walton points out, we would have to concede that any kind of game can be played with any kind of novel – meaning that any reading of a novel, taken as a whole, would be equally valid. The category of the work-world, designating a non-negotiable and rule-generating power in games of make-believe, serves to secure and strengthen the objectivity and shared nature of the magic circle of make-believe.

that, in the case of a doll, the fictional truths generated by the doll itself will not normally be experienced or referred to by the participants as the 'world' of the doll, and therefore – under most circumstances – a doll does not project a world; it has no 'work world' in the same that a novel has:

> We are not as often interested in dolls themselves apart from games played with them. The contributions most dolls make to such games are relatively insignificant. What is important is usually the fictional truths generated by what is done with the dolls – that fictionally Heather bathes or dresses or scolds a baby, for instance. (Walton 1990:62)

Walton does not proceed from this observation to propose any conceptual distinction between props that have work worlds and props that do not[17]. However he makes an interesting remark – although in passing – with respect to how dolls or statues are different from paintings or tapestries:

> …a doll's location in real space is significant in a way in which the actual location of a painting is not. The fact that a doll is in Heather's arms or on her bed probably makes it fictional (in her game) that a baby is in her arms or on her bed. But the fact that the Unicorn Tapestries hang on the walls of the Metropolitan Museum does not make it fictional that there are unicorns *there*. (Walton 1990:62-63)

This distinction, which has to do with the *space* of fiction and fictional participation, may not be important to Walton's general definition of fictionality, but it may be quite useful to cast light on more complex props – like computer games – that are, in a sense, both like tapestries and statues at the same time, which I will return to in chapter 5. What we may conclude from Walton's observation, I want suggest, is that a prop is a 'world-prop' when it prescribes fictional truths in a game of make-believe without being a reflexive prop with respect to how it relates to its environment. By virtue of its own properties as a truth-generating prop, it encloses the user within a separate space of game-relevant activity (a game-dedicated ad-hoc world), while at the same time blocking out the external environment, precluding this environment from having relevance within the game of make-believe. A teddy bear, therefore, cannot be a world-prop, at least not according to the typical modes of participation that we are familiar with. As with Heather's doll in the Walton's example above, the external environment will always matter; indeed it is a central attraction of teddy bears that shifting environments

17 It should be remembered here that Walton's aim is not to give precise or exhaustive descriptions of different types and categories of props, but to investigate how various capacities of props shed light on the nature of representation.

*do* matter to the fiction. I can take my teddy for a stroll in the garden, bring him with me on holiday, and so on. In comparison, it does not matter where I bring my book or my DVD, because as world-props they do not interact fictionally with their environment. A world-prop, I suggest, is a self-contained prop; a game of make-believe incarnated as prop.

## A prop-centred approach

Kendall Walton's conceptual framework in *Mimesis as Make-Believe* is highly productive to the analysis computer game fictions. The basic idea is that fiction – any kind fiction – is a rule-based activity, and that props, used according to their specific capacities as props and in accordance with the rules of the game, create a shared reality of make-believe for the participants to play within. Props and rules create fictional truths. These truths constitute the basis for a fictional environment that can be explored as autonomous and independent of the participants' own subjective imaginations.

Moreover, Walton's theory draws attention to how different types of props (verbal props, visual props etc) encourage and discourage different types of make-believe – or, we could say, how different props draw up different types of playgrounds, suited to different kinds of mimetic play. In other words, Walton's concept of the prop offers a tool for the theoretical reflection on the *technologies* of fiction – even if his own elaborate discussions of the materialities and typical uses of various kinds of props do not include any consideration of what might be specific or unique to 'computerised props', or to the computer as a particular technology of make-believe.

Finally, Walton's analysis of a wide range of representational forms is useful in that it describes how different modalities of fictional participation and subject-positioning relate to different types of props – from toy trucks and Barbie dolls to novels and expressionist paintings. Even if he does not consider computer games, his categories for thinking about different mechanisms and principles of fictional engagement – in relation to different technological and perceptual determinants of the props – are well-suited to the task of mapping and investigating the typically multi-modal and multi-generic nature of computer game aesthetics.

## Recentring

Marie-Laure Ryan's *Narrative as Virtual Reality. Immersion and Interactivity in Literature and Electronic Media (2001)* sums up much of her earlier work and establishes a unified theoretical perspective on the relationship between inter-

activity, immersion and fiction in literature and in digital media. In envisioning the promises of narrative in digital media, Ryan's main focus is on the mechanisms of immersion rather than on digital media's capacity for textual self-reflexivity and play, as emphasised by hypertext theorists Jay David Bolter (1991) and George P. Landow (1992). Ryan aims to explore the potential of digital fictions as a new form of 'total art', appealing as much to our bodies as to our minds, and utilising the richness of a multitude of media forms. As the title indicates, the central theoretical idea throughout the book is that virtuality or 'presence' is at the core of fiction and narrative – in novels and films as in digital media. Fictional phenomena present us with 'virtual realities' in the sense that we can relate to them as actual worlds.

Ryan's approach implies a shift from a text-oriented to a world-oriented paradigm of interaction and engagement in digital media; it is of crucial importance to our engagement with fiction and narrative, Ryan argues, that we are able to experience a fictional world as being an actual *world* rather than as 'world' simply as a metaphor; a textual web of meanings. In other words, the experience of being 'lost' in a book or a film is not something that we should discard or trivialise as incidental to the higher and proper goals of artistic expression and engagement, but is, on the contrary, at the core of what fictional and narrative phenomena are all about. If we loose 'immersion', we loose the key to the power of narrative.

What Ryan refers to as a 'poetics of immersion' (2001:87ff) addresses the relationship between literary immersion and computer-based interactivity, combining Walton's theory of participation with possible worlds theory. In the field of formal semantics, possible worlds theory is a way of expressing the logical status of the modal operators possibility and necessity. Possibility means that a state of affairs exists in *at least one* possible world – under the condition that this world needs to be logically consistent. Conversely, the modality of necessity means that, given the positive truth-value of a certain proposition ('if'), in *any* possible world, then a specific other proposition ('then') must also be true[18].

The *modal system* of possible worlds, as formulated by Saul Kripke, refers to the organisation of possible worlds around a privileged centre, the *actual* world, a position from which all other worlds express modalities (as intentions, wishes, counterfactuals, goals etc). Taken as a whole, the modal system is a logical expression of everything that we can imagine, the totality of the thinkable. It is important to note that the modal system is more than just a formal, semantic tool. It also articulates a basic phenomenological experience of being a subject who relates to state of affairs in the world. According to David Lewis, possible world theory is the logical expression of our intuitive acknowledging that, at any

18 My account of possible worlds theory builds on Ryan (2001; Ryan 1992).

point in time, "things might be otherwise than they are"[19]. I could, for example, be writing a different sentence than this one. Moreover, the logical construct of 'possible world' is by definition *complete*. It refers to a particular semantic universe of propositions and their truth-values; to the exclusively and exhaustively defined propositional configuration of all there is.

As a formal method of explaining how relationships between the actual and the possible are organised, possible world theory can be used for a variety of purposes, including investigations into the nature of fictional worlds. Marie-Laure Ryan's adaptation of possible world theory draws on Thomas Pavel's concept of the 'actual possible world' (Pavel 1986). Fictional worlds are *autonomous*, according to Pavel, because when we engage with them imaginatively, they enforce onto us a new ontological position, from which the fictional world becomes an actual world. The actual possible world is the absolute reference world for the judgment of truth-values of the propositions put forward by characters in that world. Ryan develops from this idea the notion of *recentring*; the subject-position of the reader is re-located and re-centred within a new modal system of worlds, in which the possible actual world (the 'textual actual world') is defined in relation to other satellite possible worlds – other modalities or 'virtualities' that include character's beliefs and goals. This ontological re-orientation is a 'space travel' of the imagination, assigning to the fictional world the same privileged position as the real world; a world that appears autonomous in relation to the subject. Through recentring, the virtual is experienced as real. Non-immersive fiction, on the other hand, is more like a 'telescope' rather than a 'space travel':

> In the telescope mode, consciousness remains anchored in its native reality, and possible worlds are contemplated from the outside. In the space-travel mode, consciousness relocates itself to another world and, taking advantage of the indexical definition of actuality, reorganizes the entire universe of being around this virtual reality. I call this move recentering, and I regard it as constitutive of the fictional mode of reading. Insofar as fictional worlds are, objectively speaking, non-actual possible worlds, it takes recentering to experience them as actual – an experience that forms the basic condition for immersive reading. (Ryan 2001:103)

With the adaptation of possible worlds theory as a theory of literary immersion, the 'modal system' has been re-articulated as phenomenology – as a philosophy that attempts to describe intuitive experience. Ryan's poetics of immersive fiction, like Walton's theory of make-believe, highlights a mode of interaction according to which both diegetic texts and magic circles can be considered different incarnations of the same basic kind of imaginative practice; mimetic discourses and

19 Quoted in Ryan (1992:528).

mimetic contests, however different in many respects, are both practices of recentring, of experiencing the virtual as actual.

Experiencing the virtual as real, moreover, also implies that we experience the fictional world as *complete*. Fictional worlds, when contemplated from outside, as clusters of propositions about state of affairs, are far from complete. The exact family relationship between Donald Duck and his nephews, for example, cannot be decided. Considered from the point of view of our actual world, fictional realities are always radically underdetermined. The process of reading requires us to fill in the gaps, so that worlds are constructed. The whole point of recentring, however, is to relocate or re-orient ourselves into a position from which we *imagine* a world that is complete. The logical construct of a possible world is an adequate expression for our experience of the textual world being an *actual* world, a proper world with an autonomous existence in relation to ourselves, the kind of world in which questions concerning state-of-affairs can always, in principle, be decided[20].

Kendall Walton argues that the worlds of make-believe should not be confused with the logical constructs of possible worlds, because the former are not complete. This is a relevant argument, provided that he never considers describing the act of fictional re-positioning *itself* in terms of possible world theory, as Ryan does. A game of make-believe, considered as a rule-based and self-contained system, could be considered as either complete or non-complete, depending on whether the participant is positioning herself inside or outside of the system. Games and literary fictions are equally underdetermined in this respect. In any kind of fictional world, including mimetic contests, completeness is a *mode of experiencing* a world, a 'space travel' which is, following Ryan's argument, the constitutive mode of experience of immersive fiction.

Ryan's broad analysis of immersion and interactivity in digital media provides valuable tools for the analysis of avatar-based interaction in computer games. At the same time, for the purpose this thesis, the primary limitation of *Narrative as Virtual Reality* is that the specific mechanisms of play and fictional participation in computer games are not taken into account. As I will return to in chapter 8, her theories are mainly oriented towards in the dominant (and distinctly avatar-less) paradigm of Virtual Reality. This means that avatar-based computer games end up in the periphery of her otherwise fairly comprehensive and unifying theoretical framework.

20 'In principle' means that we are always able to describe the conditions under which it would be possible to determine the truth-value of a proposition. We do not know, for example, whether there is life somewhere else in the universe, but we are able to specify the conditions under which we could find out (conditions which, I assume, in effect make it impossible to actually find out).

## The paradox of play

Oscillations and conflicts between imagined and actual subject-positions are integral to how we engage with fictions. Games structure these oscillations differently from novels or films, and they typically encourage what Ryan would call the 'telescope' mode of interaction. However, in principle, games are no less 'complete' as fictional worlds, nor do they necessarily encourage us to engage with them in telescope mode. Mimetic games, simulations and literary fictions are all accessible to us as 'actual fictional worlds'. Gregory Bateson's classical essay "A Theory of Play and Fantasy" *(1972)* casts more light on the nature of this paradox.

Bateson is concerned with the significance of play in the evolution of human communication, and with the role of play in psychotherapy. He defines 'play' as follows:

> I saw two young monkeys *playing*, i.e., engaged in an interactive sequence of which the unit actions or signals were similar to but not the same as those of combat [...] Now, this phenomenon, play, could only occur if the participant organisms were capable of some degree of metacommunication, i.e., of exchanging signals which would carry the message "this is play". (Bateson 1972:179)

We see that Bateson here describes make-believe from a slightly different angle than Walton does, emphasising the metacommunicative nature of the rule that defines the boundary of play. The act of metacommunication (communication about communication), Bateson argues, establishes a *frame* for meaningful activity: within this frame, there is play. Through framing, humans communicate to each other what the situation is about, how the communication is to be understood. Framing – or metacommunication – defines the communicative situation, defines what is going on: 'This is humour'; 'This is poetry'. Because play is a basic and primitive form of metacommunication – animals do it – Bateson considers play as a driving factor in the evolution of all other kinds of metacommunication, including the development of language:

> We therefore meet in play with an instance of signals standing for other events, and it appears, therefore, that the evolution of play may have been an important step in the evolution of communication. (Bateson 1972:181)

Play, in other words, can be seen as the most basic form of *representation*, of "signals standing for other events"; through the metacommunication of play, the human species learned to discriminate between map and territory. The evolution of human communication is rooted in our ability to metacommunicate, and this

ability finds its simplest form in the activity of play. If there was no metacommunication, human communication would be restricted to involuntary mood signals.

However, Bateson's main focus is not on the discriminating function of metacommunicative framing in its most straightforward sense. His main concern is with the *paradox* of mimetic play. Play establishes a paradoxical frame through the logical self-reference of the meta-statement "This is play"; the establishing may itself be included in the frame that it establishes. This paradoxical frame can be compared to the classical philosophical paradox that is referred to as Epimenides' paradox or the liar's paradox: 'This sentence is false'[21]. The paradox follows logically from the principle of metacommunication, but takes on a particular significance, Bateson argues, in the psychological framing of play. Play is an activity that goes beyond the simple act of discriminating between map and territory, or the ability to tell fantasy from nonfantasy:

> The discrimination between 'play' and 'nonplay', like the discrimination between fantasy and nonfantasy, is certainly a function of secondary process, or "ego". Within the dream the dreamer is usually unaware that he is dreaming, and within "play" he must often be reminded that "This is play". [...] In the primary process, map and territory are equated; in secondary process, they can be discriminated. In play, they are both equated and discriminated. (Bateson 1972:185)

From a psychological and therapeutic point of view, the establishing of the frame 'This is play' is always fragile and vulnerable. The 'play frame' brings forward and accentuates the paradox that is inherent in metacommunication. While 'This is play' is a strategy for *avoiding* paradox (a strategy of discriminating play from non-play), it also recognises and *affirms* the paradox precisely by engaging so strongly with it. In play, therefore – as in ritual, Bateson notes – the discrimination between map and territory is always labile; always liable to brake down (1972:182). According to Bateson, the peculiar psychology of play – which goes beyond the 'secondary processes' of discrimination – has been central to the evolution of human communication, and must also be a necessary ingredient in psychotherapy:

> The resemblance between the process of therapy and the phenomenon of play is, in fact, profound. Both occur within a delimited psychological frame, a spatial and temporal bounding of a set of interactive messages. In both play and therapy, the messages have a special and peculiar relationship to a more concrete or basic

21 "In sum, it is our hypothesis that the message "This is play" establishes a paradoxical frame comparable to Epimenides' paradox" (Bateson 1972:184).

> reality. Just as the pseudocombat of play is not real combat, so also the pseudolove and pseudohate of therapy are not real love and hate. (Bateson 1972:191)

In Walton's terminology, we could say that Bateson describes the game of psychotherapy as a game of make-believe. His use of the prefix 'pseudo'- in the context of psychotherapy echoes his comment on the terror that is caused by a spear flung at cinema viewer from a '3D screen', or the (homoerotic) 'pseudosexual fantasy' that may be offered in a Hollywood film (1972:183).

For the purpose of psychotherapy, which aims to "change the patient's metacommunicative habits" (1972:191), the challenge posed by cognitive and emotional 'pseudoreality' is twofold. First, Bateson points out that communicative competence includes, in its most elemental form, the ability to manipulate and make use of the kind of framing that play constructs. This is the problem with the schizophrenic, who does not "recognize the metaphoric nature of his fantasies", as he is not able to set or interpret metacommunicative frames (1972:190). Secondly, the healthy communicative mind must also learn to accept and to make use of the vulnerable and paradoxical nature of the play frame. This is why, as Bateson points out, rule-based games can only serve as an 'imperfect model' of the formal structure of therapeutic interaction. In a game like for example Canasta, the players avoid a logical paradox "… by separating their discussion of the rules from their play, and it is precisely this separation that is impossible in psychotherapy" (1972:192). In psychotherapy, rules may be implicit and constantly subject to change through experimental action. The resulting ambiguity is a challenge for the neurotic, who must learn that fantasy contains truth (1972:192).

Bateson's notion of play is similar to Walton's notion of make-believe, and as such we can also consider it as a theory of fictionality. Both theories claim that the 'as if' of mimetic play – or of simulation, in the broad sense of the term – contains the essential premise for representation. Bateson's concept of framing, however, highlights the relationships between play and *non-play* (or the fictional and the actual) rather than the internal and generative mechanisms of play itself. Moreover, Bateson's approach is more psychological than philosophical or phenomenological, emphasising how and why we differentiate between play and non-play, and how therapy can strengthen people's capacity to relate to and manipulate metacommunicative framings. This competence would include, we may add – even if Bateson only mentions this briefly, in the Canasta example – people's capacity to position themselves differently in relation to, or oscillate between, different metacommunicative frames; in one moment, we may be playing the game, in the next we may be communicating *about* our playing of the game[22].

22 It is illustrative for Bateson's overall concern and perspective that he only refers to non-mimetic and formally rule-based games once, as a model of therapeutic interaction – and as

We should note that *A theory of Play and Fantasy* does not concern itself with the question of 'suspension of disbelief', or with the conditions for how we are able to re-position within (actual) fictional worlds. Rather, it seems that the immersive attitude is simply taken as a given when Bateson discusses the psychology of the pseudoreality of play. Also, it is the paradoxical nature of this psychological framing that mainly interests Bateson; the strong emotions of 'pseudolove' and 'pseudohate' hence testify to the paradoxical nature of the frame. At the same time, there is very little romantic tendency or mystification to be found in Bateson's conceptualisation of fantasy and play. There is nothing particularly peculiar about the relationship between play and non-play; play merely brings forward or accentuates a paradox that is so general that it is hardly considered as a paradox at all: the paradox that is implied by our capacity for self-referential abstraction. This is the 'paradox' of human communication, which enables us to exchange more than involuntary mood signals. The play of make-believe is a type of communication in which we engage more seriously with the implications of this basic paradox.

Finally, Bateson's investigation into the secret of mimetic play does not include the role of externalised representations, or props, in Walton's terminology. On the contrary, his focus of interest is specifically on a type of play-framed interaction that does *not* rely on props. In the "more complex form of play" that can be utilised in therapy, frame-setting is a fleeting and self-negotiating process, where frames can only be articulated and changed through their own application, from the inside; the defining statement is not "This is play", but "Is this play?" (1972:182). This process of paradoxical self-framing is contradicted by the implementation of props. We could say that props externalise and thereby *objectify* the frames of play, stabilising and 'disciplining' the paradoxes that they carry. Bateson does make a hint in this direction when he observes that any psychological frame has "some degree of real existence" and that it is therefore often "...consciously recognized and even represented in vocabulary ("play," "movie," "interview," "job," "language," etc.)". These are examples where framing has become institutionalised and standardised, as it were. A similar principle is involved when we externalise frames as physical objects:

> The psychological concept which we are trying to define is neither physical nor logical. Rather, the actual physical frame is, we believe, added by human beings to physical pictures because these human beings operate more easily in a universe

a model that mainly illustrates how the therapeutic use of play-framings is *not* structured. It is clear that he is neither interested in the phenomenon of non-mimetic play per se, nor in the most common way of organising metacommunication: as structured and unambiguous oscillations or frame-shifts.

> in which some of their psychological characteristics are externalised. (Bateson 1972:187)

Props, if we follow this line of thought, can be thought of as externalised meta-communication, which provides objective, recognisable and shared frames of "This is play". This does not mean that paintings or novels escape the paradoxes of mimetic play; on the contrary, there is a way in which the paradoxical nature of 'pseudoreality' becomes *more* pronounced with the use of elaborate props (especially with world-props). The safety of externalised and mutually recognised frames gives us permission to intensify and to throw ourselves into the paradox of the experience, so to speak, without worrying that other people is going to question our emotional stability. Also, we may add, although Bateson does not take his argument in that direction: the stability provided by external representations increases our cognitive capability to oscillate between – and *play with* – multiple frames of play. Also, the shared nature of the props gives us permission to do so without running the risk of loosing (or appearing to loose) our grasp of reality.

Drawing on the perspective as outlined above, I will in the next chapter give a critical discussion of contemporary computer game theory that specifically addresses the role of fiction and fictional immersion in computer games, and the role of avatars. This discussion also aims to point out the tensions, links and overlaps between my own approach and the approaches that are dominant in the field. I will place particular emphasis on Jesper Juul's book *Half-Real (2005)*, which is the leading and most comprehensive theoretical contribution on the subject.