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Games and Metaphor – A critical analysis of the metaphor discourse in game studies

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Abstract

This doctoral dissertation critically investigates how the concept of metaphor is used with regard to games in game studies. The goal is to provide the field with a self-understanding of its metaphor discourse which has not been researched so far. The thesis departs from the observation that the notion of metaphor has been present in the discourse of game studies since it emerged as an academic field and focuses on questions such as: What are the motivations and effects of calling games metaphors in the game studies discourse? Which problems arise from that with regard to other established concepts in game studies such as simulation and procedural rhetoric? How do concepts and insights of contemporary metaphor theory affect the applicability of the notion of metaphor with regard to games?

Drawing on concepts from metaphor theory (in particular the cognitive linguistic view on metaphor), play and game theory, cultural theory, semiotics, linguistics, philosophy, and game studies it investigates the metaphor discourse of game studies in the fashion of a meta-study. The main part of this thesis is devoted to three particular problems which have been derived from observations in the overview of the current use of the notion of metaphor in game studies.

Firstly, this thesis investigates is the conceptual relationship between the notions of metaphor, representation, and play. It therefore accounts for observations such that all three notions are present in non-computer game and play theory, theory of representation and art which all influenced game studies and argues for an equiprimordial relation between these three concepts.

Secondly, this thesis deals with what is termed the metaphor-simulation dilemma which accounts for the observation that in game studies the notion of metaphor is very often used in close conceptual proximity with the concept of simulation to the extent that they become conceptually indistinguishable. The two notions are reconciled through the notion of the model and a case study will demonstrate that it is possible to think of simulations as based on metaphorically structured models.

Thirdly, thesis deals with the observation that the concept of metaphor is referred to in game studies in particular when games are interpreted in terms of some existential topic. Usually addressed from the perspective of (procedural) game rhetoric games are called metaphors for struggle, life, death, love. On the basis of a criticism of procedural rhetoric this thesis will suggest a distinction between a textual hermeneutic and an existential hermeneutic of games in which the latter is primary. It suggests furthermore that metaphoric interpretation of games is usually a sort of text interpretation. This supports the argument of a general de-metaphorization of alleged metaphoric computer games.

Acknowledgements

Content

Chapter 1 – Introduction[1]

1 The metaphor discourse of game studies [2]

This thesis intends to investigate the notion of metaphor with regard to games as it occurs in the research field of game studies. Game studies is a rather young field devoted particularly to the study of computer games from a wide range of scholarly backgrounds. For instance, the humanities are concerned with the aesthetic and ontological analysis of computer games, social sciences are concerned with social aspects of playing computer games, as well as politics and economies of play from the player's point of view, and design research cares about the creation of computer games with certain design goals in mind.

The establishment of game studies as a research field can be dated with the formation of Game Studies (http://www.gamestudies.org), the first peer-reviewed academic journal dedicated to the study of digital games, in 2001, and the creation of the Digital Games Research Association (DiGRA, http://digra.org) in 2003. The first PhD dissertation dedicated to the research of computer games was written by Mary-Ann Buckles in 1985. The title of her work "Interactive Fiction: The Storygame 'Adventure'" suggested early on future lines of research in game studies - for instance, in particular, humanities-based research which is interested in the ontology of computer games - as in what exactly *is* a computer game. In

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[1] Parts of this thesis have been presented to different audiences (workshops and conferences) and at different stages. As such parts of chapter 2, 3, 4, and 5 have been presented at the Ludotopia Workshop in Manchester 2011, at the Philosophy of Computer Games conference 2011 in Athens, Greece; at the Deutsche Gesellschaft für Semiotik (German Society for Semiotics) 2011 in Potsdam, Germany; at the Literay Theory and Games Workshop in Malta 2012; Nordic DiGRA conference 2012 (Möring 2012); at the Foundations of Digital Games conference 2013 in Chania (Crete), Greece (Möring 2013a), and at the Cognition, Emotions and Games conference 2013 in Hamburg, Germany. Depending on the state of the work more or less similar versions can be found in the respective conference proceedings. Furthermore, essential parts of Chapter Four have been published as "The metaphor-simulation paradox in the study of computer games" in *The International Journal of Gaming and Computer-Mediated Simulations* (Möring forthcoming), and a metaphor analysis of *The Marriage* is in the process of being published in the *Game Love Reader* by Jessica Enevold and Esther MacCallum-Stewart (Möring forthcoming).

[2] In this thesis I will cite all direct quotes as they are found in their original environment. This implies that I will quote them as British English as well as American English. My own text including paraphrases will follow American English.

1997, Espen Aarseth delivered his work *Cybertext*, a study which basically proposes considering a new sort of text – the so-called cybertext or ergodic literature – which does not only apply for computer games, but which also applies for other sorts of texts with a similar materiality. Janet Murray's book *Hamlet on the Holodeck* (1997) treats computer games particularly as a promising new form of narrative. An initial debate between what can be termed two different schools of thought took place in game studies, between those who consider computer games merely as games and those who consider them stories or narrative[3]. Since then, the so-called ludology/narratology-debate (Juul 1999; Eskelinen 2001; Frasca 2003c; Mäyrä 2008) has been framed as a misunderstanding in game studies (Frasca 2003c) in that one cannot exclusively regard games as games or as narrative. The vastness of computer game genres allows us to treat some computer games as a hybrid (see Aarseth 2012) between their particular own form as games (Aarseth 2004) and other aesthetic forms they incorporate, too, such as elements of narrative, fiction and so on (Aarseth 2005a; 2012). Accordingly, some games have more in common with narrative whereas others have more in common with games.

Despite having largely been studied by scholars with a background in literature theory, games have rarely been analyzed with regard to the concept of allegory or metaphor from a narrative perspective on games. In the study of literature it is quite common to study certain novels as allegories for something else. The terms metaphor and allegory are very present in the discourse of game studies. An overview of the literature from 1997 on shows the notions of metaphor and allegory have been used or addressed in game studies ever since (Murray 1997; Aarseth 2001a; Madsen and Degn Johansson 2002; Pearce 2002; Laurel 2003; Crawford 2003; Pearce 2004; Penny 2004; Juul 2005; Galloway 2006; Wark 2007; Juul 2007; Rusch 2007; Bogost 2007a; Järvinen 2007; Fernandez-Vara 2007; Nitsche 2008; Rusch and Weise 2008; Kayali and Purgathofer 2008; Rusch 2009; Leino 2010; Begy 2010; Kromhout 2010; Kirkpatrick 2011; Treanor et al. 2011; Treanor and Mateas 2011; Bogost 2011; Begy 2011;

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[3] For reasons of correctness one has to add that most people use the notion of "story to mean […] narrative" (Abbott 2010, 18). Some theories of narrative suggest distinguishing between what is known as the narrative discourse and the story. Here story describes "an *event* or a sequence of events" and narrative discourse describes "those events as represented" (Abbott 2010, 19). In other words the narration of a certain chain of events does not necessarily have to have the same order. More important here is to know that story and narrative are often used synonymously despite having different functions in narrative theory in that narrative is the superordinate term and story is a subset of narrative.

Calleja 2011; Ensslin 2012; Möring 2013b; Möring forthcoming). Only a few recent studies were decidedly dedicated to the study of metaphor in games and explored the possibility of metaphoricity of games (Madsen and Degn Johansson 2002; Bogost 2005; Rusch 2009; Begy 2010; Kromhout 2010).

What is interesting is that the notion of metaphor or allegory is hardly used from a perspective of literature analysis – in that, for instance, some narratives are considered allegorical for something else. On the contrary, metaphor is by some decidedly considered a "non-narrative rhetorical" means for the creation of meaning through computer games (see Madsen and Degn Johansson 2002). Instead, the discourse of game studies uses the notion of metaphor in what we can roughly group into three different perspectives: human-computer interaction (HCI), simulation, and procedural rhetoric.

From the perspective of HCI, metaphor is particularly used when translating a user's everyday knowledge and models of thought and action onto the computer in order to ease the use of computers. The most prominent example is perhaps what is known as the "desktop metaphor". De Souza writes accordingly:

> "The historical 'desktop metaphor' introduced by the Xerox Star station was meant to facilitate the users' understanding of file system actions in terms of everyday life analogs" (De Souza 2005, 79).

This perspective is concerned with questions such as how a highly complex and abstract machine such as a computer can be made useable for non-expert users. Hence the desktop metaphor was meant to simplify the use of a computer system in that everyday knowledge was mapped onto some functions of the system. This perspective is particularly present when computer game interfaces are described as metaphoric (see later). What is problematic with the HCI perspective is that the same interface can also be called simulation or representation, as Ian Bogost's description shows:

> "graphical user interface (GUI) of the Macintosh and Windows operating systems are also simulations, representations of information groupings and processes in terms of interactions with a physical working space" (Bogost 2006a, 106).

Therefore, one cannot know if the notion of metaphor is itself just a metaphor for representation or simulation within this discourse. Perhaps, HCI and interaction design do not

have as strong a notion of simulation as game studies, and, as a result, the idea of metaphor is here more emphasized than the notion of simulation. For instance, the index of an acknowledged introduction to the field of interaction design called *Interaction Design: Beyond human-computer interaction* (Sharp, Rogers, and Preece 2007) features the terms metaphor, and, in particular, interface metaphor, but not the term simulation. This suggests that perhaps game studies are one place to discuss the interplay of metaphor and simulation – because both terms appear here often used in combination.

Most commonly, however, in game studies computer games are called metaphoric in combination with or as a delimitation from the concept of simulation. Apart from narrative, the notion of simulation is another central term in the study of computer games; it has even been described as the "hermeneutic Other of narratives" (Aarseth 2004, 52). Roughly, the term 'simulation' describes two essential things in the study of computer games. Aarseth clearly uses the term almost synonymously with the notion of game mechanics, and accounts with the notion of simulation for the dynamic and emergent mechanism behind games which accounts for their processes, allows their behavior to happen and determines the ways in which they happen (Aarseth 2004). A second notion of simulation is closely related to Gonzalo Frasca, who understands it as sort of a representation (2003a). Clearly, Frasca also considers the dynamic aspects of a simulation, but of at least equal importance to him is the fact that simulations stand for something else - that which they simulate. In this regard, they have a representational characteristic. The representational aspect of simulations leads many authors to consider games as metaphoric.

Apart from the narrative and simulation discourse of game studies, a third discourse has gained prominence. Here I am speaking of procedural rhetoric, as coined by Bogost (2007a). This discourse is closely intertwined to the discourse of games as simulation and as a means of rhetoric as proposed by Frasca, as well as to the question of how computer games can express meaning, particularly political or ideological meaning. In the latter two discourses, one can observe the most progressive use of the term metaphor. It is here that some games are called metaphoric in that they are assumed to convey a theme in a non-literal way, whereas others do not. It seems reasonable to use the notion of metaphor within a theoretical framework of rhetoric. Accordingly, Bogost suggests speaking of a "procedural metaphor" (2007a, 108). However, it is questionable if this is a plausible concept when a) the framework of procedural

rhetoric itself has to be seen in a critical light and b) the notion of metaphor is not sufficiently reflected on. A central problem here is that Bogost assumes that the rhetorical power of games lies in their procedures; however, many games represent procedures through non-procedural means. For metaphor, one can say that already linguistic metaphors can refer to procedures – such as, for instance, in the metaphoric expression "life is a journey". In this regard, games are not required in order for procedural metaphors to occur. In addition, it is questionable whether the concept of procedural rhetoric is sufficiently distinct from the concept of simulation.

The latter point becomes problematic for scholarly reflection when the use of this notion is not sustainably supported by theory or, even worse, when its use is motivated by ideological implications. The latter can be assumed for a discourse which can be called the artgame discourse in game studies, and which is closely related to the procedural rhetoric discourse. According to this discourse, games which are supposed to be artistic are called metaphoric; however, the use of the notion of metaphor is usually not or insufficiently justified. Therefore, the discourse and these games are subjected to the suspicion of using the notion of metaphor for ideological reasons. The problem grows when these notions enter the scholarly study of computer games without sufficient reflection. As has already been mentioned, very few works studying computer games address metaphor as their central concern. Most other occurrences of the notion of metaphor in the study of computer games take the meaning of the term for granted.

A problem which complicates the matter is that game studies is still far from a common canon of theories and methods (see e.g. Aarseth 2001b). To some, it is even questionable if researchers in this multidisciplinary field are speaking of the same phenomenon when they apply the term "game" (Aarseth 2011). On this point, Gordon Calleja observes a tendency towards a lack of "analytical specificity" in game studies when researchers make the same claims for potentially different objects of study (2011, 9). Like Aarseth, Calleja seems to be generally sympathetic to following Ludwig Wittgenstein's idea for the study of computer games. The latter considers games as members of a large family in which different specific members share different resemblances with each other (Wittgenstein 1958; Calleja 2011, 8). The advantage of this idea is that it does not require each member of that family to fulfill a "single list of characteristics" (Calleja 2011, 8); it contents itself with all members sharing some characteristics, while allowing for the possibility that there are some members which

have nothing directly in common.[4] The problem which occurs with regard to the study of metaphor and games is that, apart from the term metaphor, games themselves are phenomenona that are difficult to be grasped.

Yet another problem which occurs when studying metaphor and games is described by Aarseth's (2012) latest contribution to the problem of how narrative theory is and should be applied to games. He criticizes the fact that the notion of "narratology" in the form in which it has been constructed in opposition to "ludology", often refers to a "mythical position" instead of "the academic discipline of narrative theory" (Aarseth 2012, 130). The same can happen with the term metaphor, particularly when it is used with the same meaning as narrative (see e.g. Pearce 2004), simulation (e.g. Crawford 2003; Juul 2005; Salen and Zimmerman 2004) or as a counter-concept to narrative and simulation (Madsen and Degn Johansson 2002; Begy 2010). Along with the relation between metaphor and simulation come questions such as: what is referred to when simulations are understood as metaphoric? And is the degree of similarity sufficient to distinguish between metaphor and simulation?

Furthermore, game studies have been influenced by the study of games and play in fields like anthropology, sociology, philosophy etc. whose models were mostly developed without taking computer games into consideration. Already *Kriegsspiel* can be called a computer game. Invented by Georg Leopold and his son Georg Heinrich von Reißwitz in 1824, *Kriegsspiel* features, apart from at least two opponents, the role of the confidant (Vertrauter). The latter's task was to *compute* the complex simulation (Pias 2000, 174–175; see also Peterson 2012, loc. 6590–6594). Hence, computer games already existed, but theories of play and games did not take them sufficiently (if at all) into consideration. Some contemporary authors from the field of game studies base their definitions of games upon these play theories (see e.g. Salen and Zimmerman 2004; Juul 2005), while others consider them generally necessary to understand games as an object but also raise awareness that all these models focus on different aspects of play and games (Egenfeldt-Nielsen, Smith, and Tosca 2008, 22–40). It should also be mentioned that, again, others follow Wittgenstein. They dismiss the attempt to arrive at a

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4 Calleja specifically suggests distinguishing between virtual environments (like *Half-Life 2*), games (like *Tetris*) or hybrids which would be games in virtual environments (Calleja 2011, 9). *Tetris* and *Half-Life 2* belong to the same family of games and do share some commonalities but are very different in other respects. Thus, they can only be reasonably compared with regard to some commonalities.

general definition of games, and suggest instead to rely on family resemblances among the phenomena called computer games (Aarseth 2011).

Interestingly, the more classical studies of play show a surprising and perhaps important relation between metaphor and play. For instance, both play and metaphor are thought of as equally ubiquitous and fundamental in human existence and culture (Huizinga 1998; Caillois 2001; Lakoff and Johnson 1999; 2003; Richards 2001; Black 1954). This relationship needs to be examined, since it points to a close relationship between metaphor and play. This analysis can provide answers to the question of whether play is always already metaphoric, and can have consequences for the use of the notion of metaphor within the study of computer games.

On a final note as to the motivation behind my research, the notion of metaphor itself is highly contested. With Anselm Haverkamp, one can say:

> "[es] gibt keine einheitliche Metaphernforschung und eine Theorie der Metapher nur als Sammelnamen konkurrierender Ansätze" (Haverkamp quoted in Rolf 2005, 2).

> ("there is no such thing as a unified research of metaphor and a theory of metaphor exists only as a collective name for competing approaches").

The number of theories as well as the number of fields and disciplines in which metaphor is researched (philosophy, linguistics, art, semiotics, rhetoric, poetics, cognitive sciences, computer sciences, human computer interfaces etc.) demonstrates its ubiquity and might be a hint that metaphor is a fundamental mechanism of human cognition. The theory of metaphor carries a lot of implications resulting from the long history of study of this phenomenon since it was first described by ancient Greek philosophers such as Plato and Aristotle (see e.g. Rolf 2005). The study of metaphor is as old as philosophy itself. However, it had long been understood as a mode of speech related to poetics, and therefore the arts, accounting for the creativity and artistry of poetry; or related to the realm of rhetoric, where it accounted for a similar creativity and artistry in oral speech (see Aristotle 1926; Aristotle 1932). From a contemporary point of view, metaphor is no longer considered an exclusive means of the arts but a ubiquitous phenomenon in everyday linguistic expression. It is by some even considered a fundamental mechanism of thought (see e.g. Lakoff and Johnson 2003 [1980]) and can therefore also occur in non-linguistic expression as a so called multimodal metaphor

(Forceville and Urios-Aparisi 2009). The contemporary argument would therefore say that metaphor is part of the arts because it is a general mechanism of thought, and not the other way round. Accordingly, empirical metaphors as well as the concept of metaphor are present in the discourse of computer games, too.

For the time being, let me briefly introduce the most popular definition of metaphor from cognitive linguistics: "*The essence of metaphor is understanding and experiencing one kind of thing in terms of another*" (Lakoff and Johnson 2003, 5; italics in original). This definition is also popular in game studies. As a matter of fact, those approaches to metaphor and games which actually do supply a definition of metaphor refer to George Lakoff and Mark Johnson's definition as if there was no other metaphor theory.

These and other unsolved problems and questions make it necessary to study the phenomenon of metaphor with regard to computer games, and, relatedly, the use of the notion of metaphor within the discourse of computer game studies. It is therefore my argument that the phenomenon of metaphor is under researched with regard to games and computer games and thus not sufficiently reflected within singular studies from the broader field of game studies. In order to have a more substantiated understanding of the notion of metaphor for the field of game studies, it is necessary to critically study its current use and question if this can actually hold up. Before one normatively suggests a certain use of the notion, it seems advisable to take a hermeneutic approach and study how the notion of metaphor has been used so far, and to point out certain problems with these particular uses. The humble goal of this thesis is to provide game studies with its understanding of metaphor and to critically question the use of the notion, in particular when the pre-existing notion of simulation seems to carry the same meaning.

In the following, I will thus provide a brief literature review of the use of the notion of metaphor in the study of computer games, in order to motivate specific research questions. In addition, this review shall introduce some essential concepts of game studies which will be frequently referred to in later chapters.

1.1 Literature review

As I have mentioned, the notion of metaphor has been used in the study of computer games in different regards to games. This literature review is meant to order these approaches with regard to their focus and the computer-game-specific elements these approaches refer to. One should additionally mention that the uses of the notion of metaphor are of a different quality. Often the use of the notion of metaphor is not explicitly motivated and therefore needs to be reconstructed from the context. In line with a missing motivation, the notion of metaphor is often not defined. However, again from the context of its use and on the background of metaphor theory, one can reconstruct with which characteristic of metaphor in mind the notion is used.

In addition, this review will familiarize the reader with some essential concepts and discourses in game studies in relation to which metaphor becomes relevant as a concept. This review itself is already valuable for the metaphor discourse in game studies, since it proves that there is, in fact, a metaphor discourse in game studies. To my knowledge, such an overview does not yet exist for game studies.

In the following, I will briefly introduce Espen Aarseth's computer game ontology in order to be able to address more precisely specific aspects of computer games which are called metaphoric. Following Aarseth's ontological model of cybertexts, the primary elements of relevance for computer games are the operator, the verbal sign, the material medium and the machine (1997, 21). The operator is the user of the game, the verbal sign involves all semiotic signs giving the user feedback about the game state, the material medium is the computer running the code and providing input and output interfaces, and the machine is the code through which the other elements are connected and which is the core of games. Gordon Calleja's model of games is clearly based on this ontology: it consists of the player, the representational sign, the material medium, and coded rules (2011, 11–14). In addition, Calleja adds the term (simulated) environmental properties (2011, 13), which he initially presented together with Aarseth at the Philosophy of Computer Games Conference in 2009 (Aarseth and Calleja 2009). This notion makes possible the claim that computer games are perhaps not games per se, but rather software objects which also can contain games as a subset – as pointed out by Aarseth (2011, 59; 2012).

More narrowly, the Game Object[5] (Aarseth 2011, 60) consists of the machine and the verbal sign, which he also terms the "internal, coded level" and the "external, expressive level" of games (Aarseth 1997, 40), or "game-structure" and "game-world," (Aarseth 2003, 2), or "mechanics" and "semiotics" (Aarseth 2011, 59). The game structure or the game mechanics are that part of a computer game which "changes the game state" (2011, 60). Consequently, the game mechanics contain the complete set of possible moves open to a player and their effects on the game state. In a computer game the mechanics are roughly comparable to the rules of a non-computer game.[6] The game semiotics, on the other hand, circumscribe all signs which provide the player with information about the game state (2011, 60). Commonly, these signs provide feedback in different sign modalities, such as visual, textual, auditory and tactile (see Aarseth 2011, 60), depending on the possibilities of the material medium that is used (for instance, a PlayStation 3 provides a force-feedback controller by default).

According to Aarseth, the two layers of the Game Object "exist concretely and in parallel, independently and not as aspects of each other" and are different from the relation between signified and signifier, or form and content (2011, 59). Such that the same object as defined in the mechanics can produce different objects on the level of the semiotics, and the same object on the semiotic layer can be produced by two different code objects (Aarseth 1997, 40; Aarseth 2011, 59) As such, one could have very complex mechanics in a game program but the semiotic level could merely consist of a static image. Thus, Aarseth suggests that mechanics and semiotics are fundamentally independent from each other. Having said that, this does not mean that this has to be the case in each singular game object. It is certainly thinkable that mechanics and semiotics are aligned. However, this does not affect Aarseth's ontological claim.

Gameplay, the third important element following on from mechanics and semiotics in Aarseth's ontology, takes place when a player engages with the Game Object (Aarseth 2011, 59). As such, game mechanics and game semiotics are experienced through gameplay. Thus,

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[5] The Game Object in capital letters as a conceptual or ideal object is different from experienced individual game objects and objects in games. The latter are therefore indicated in small letters.

[6] Admittedly, this becomes a different story if one holds that what is commonly called computer game consists of a simulated environment in which among others also games can be played (Calleja 2011, 11–13; see also Aarseth 1997, 21; Aarseth 2003, 2).

whereas I have so far spoken of the game as an object, gameplay is concerned with the game as a process (see, among others, Aarseth 2001; Calleja 2011).

Furthermore, games can be considered as having a meaning which is external to them. Apart from a meaning which derives from their own inner structure, games are related to external meanings which by some are grasped with the term narrative and by others with the idea of simulation. The games, in turn, are supposed to account for this meaning through their own characteristics. Consequently, games are often compared according to how they tell a story or how they simulate a certain phenomenon. It is in this regard that games as narrative or games as simulation are addressed as metaphoric. Eventually, game experience is related to metaphor as is the language of games.

With this brief overview of the ontology of the computer game, it should be easier to order and make explicit the ways in which metaphor is applied with regard to games.

1.2 Game ontology – Metaphor between semiotics and mechanics

Generally, one can roughly distinguish between two perspectives on metaphor and games within the study of computer games. The first perspective considers metaphor as a category which applies to all computer games (Aarseth 2001a; Pearce 2004; Juul 2005; Järvinen 2007; Nitsche 2008). In this perspective, the notion of metaphor is partly used as form of technical term. The second perspective considers specific games or game elements as metaphoric and distinguishes these metaphoric games from other non-metaphoric games (Madsen and Degn Johansson 2002; Bogost 2005; Bogost 2007a; Bogost 2011; Rusch 2009; Begy 2010; Begy 2011). It is possible to categorize different approaches within these two perspectives, but, as a first step, it is important to highlight the distinction between these two perspectives. Provided it turns out that all games are always already metaphoric, one could prove that approaches which promote particular games as metaphoric, such as, for instance, the already mentioned artgames discourse (see Bogost 2011), are limited. It would be equally interesting if it turns out to be the other way round. Then one could go a step further and ask for the preconditions which make specific games metaphoric as opposed to others.

The following presentation of the different perspectives on metaphor and computer games in game studies will take into consideration different perspectives on computer games which are

made accountable for any relation between metaphor and games. These elements are: 1. game semiotics and game mechanics, 2. game interface, 3. game rhetoric/meaning, 4. game experience, 5. game language. One can see that the former two categories focus on the game as an object and address characteristics of the game, whereas the latter three categories focus on the game as interpreted/experienced and therefore on characteristics which imply an observer of the game and take his or her perspective into account. This observer can be of first-order (player) or of second-order (somebody who literally observes another player playing). Similar distinctions have been made by Aarseth (2003) and Leino (2010).

In the following I will thus sketch the metaphor discourse in game studies according to the suggested order.

1.2.1 Games are always somehow metaphoric

As the title of Espen Aarseth's article "Allegories of Space" (Aarseth 2001a) indicates, he holds that computer games are allegorical. Given that allegory is understood as an "extended [...] metaphor" (OED Online 2011a), one can assume that Aarseth uses the two notions synonymously. More precisely, he says that games are "allegories of space: they pretend to portray space in ever more realistic ways, but rely on their deviation from reality in order to make the illusion playable" (Aarseth 2001a, 169). Considering that Aarseth's work is primarily dedicated to the ontology of computer games (see Aarseth 2011) and thus to the question, "What are the essential characteristics of the object in question?", one can assume that this is an ontological claim. Although Aarseth focuses on the representation of space in particular, one can assume that the notion of allegory is used to describe the way in which computer games represent in general. Aarseth considers "spatial representation in computer games as a reductive operation leading to a representation of space that is not in itself spatial, but symbolic and rule-based" (Aarseth 2001a, 163). Accordingly, games are generally to be considered allegorical, and, as such, "figurative comments" on space, since it is impossible to represent or simulate "real" space (Aarseth 2001a, 169). This deviation from reality is the reason for Aarseth to call the way in which games simulate or represent allegorical, and thus, metaphoric.

Chris Crawford claims that "all play in some sense represents something from the non-play universe" and therefore "play is metaphorical" per se (Crawford 2003, 29). Whereas Aarseth refers to the technological limitation and specialty of computers to represent aspects of reality, Chris Crawford calls all forms of play metaphorical – a formulation which can include non-computer gameplay (playing a game) and play (playing around) as well as computer game play (playing games on a computer) or computer play (playing with the computer).

Authors who regard games or specific games in terms of simulations often also apply or discuss the concept of metaphor in close proximity, and thereby relate both concepts with each other (Aarseth 2001a; Crawford 2003; Salen and Zimmerman 2004; Juul 2005; Järvinen 2007; Begy 2010; Bogost 2011). In those cases, the concept of metaphor is itself often used as a metaphor for *simulations* which are considered unrealistic to different extents.

Whereas Aarseth considers games' ability to represent space as a software object as being fundamentally allegorical, Crawford says that play itself is generally metaphoric. Still, as we can see from his examples, even Crawford is primarily referring here to the software object (Crawford 2003).

However, one can also interpret Crawford's claim in a way that is much closer to theorists and philosophers of game and play who did not have computer games in mind when developing their concepts of play and games. For instance, Eugen Fink's approach to play has been termed an "existential, metaphorical and ontological view of games [sic!]" (Slethaug 1993, 68). The mutual affinity between play and metaphor can be found especially in the double-structure of play which Fink attests on the level of the player, the play world, and playthings (Fink 1968, 23). However, it is not Fink's approach alone which suggests that games and play should be considered as being generally metaphoric – or, at least, that games, play and metaphor share a mutual affinity.

As already mentioned in the section on the motivation of this thesis, apart from Fink, concepts of game and play developed by Johan Huizinga (1998 [1938]), Gregory Bateson (2000 [1954]), Roger Caillois (2001 [1961]), Brian Sutton-Smith (1997) and others have influenced the study of computer games, as one can see in Katie Salen and Eric Zimmerman's *Rules of Play* (2004), Jesper Juul's *Half-Real* (2005), or introductions to the study of computer games such as *Understanding Video Games* (Egenfeldt-Nielsen, Smith, and Tosca 2008).

The above-mentioned concepts are interesting for this thesis not only because they influenced discussions in game studies, but, specifically, because they assume some general affinity between games and metaphor. For instance, Bateson's concept of play as meta-communication addresses the self-referentiality of play. Interestingly, he uses the incapability to understand metaphor in order to exemplify his take on play. On a more general note, one can observe in these approaches – as well as in other approaches by Ernst Gombrich (1963a; 1963b), Israel Scheffler (1992; 1997), and Kendall Walton (1993), who work on the intersection between of the notions of play, representation and metaphor – a distinct tendency to use these notions to conceptualize and exemplify each other.

1.2.2 Some aspects make games metaphoric

Unlike Aarseth and Crawford, Aki Järvinen and Celia Pearce consider the relationship between game mechanics and game semiotics as generally metaphoric. Järvinen suggests that:

> "both screen information in the form of score counters, energy displays, etc., and setups of cards and boards on a table, function as metaphors of the game as an information system" (Järvinen 2007, 76).

In a nutshell, Järvinen says that all those elements of board games as well as of computer games[7] are metaphoric elements of a game system, providing information about the current game state. These information-providing game elements are: game components (avatars, weapons etc.) and their positioning in the environment (structure of the game space), scores and statistics (Järvinen 2007, 74). Järvinen's informational layer can be compared to Aarseth's semiotic layer of a computer game, and that is why one cannot say that Järvinen suggests that the relationship between mechanics and semiotics is arbitrary. Aarseth, on the contrary, considers the relation between mechanics and semiotics as arbitrary (Aarseth 2011, 59), whereas Juul was questioning if the same relationship is arbitrary or not (Juul 2005, loc. 192).[8]

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[7] Järvinen's model of games divides nine elements of a game system into three categories: 1) systemic (components, environment), 2) compound elements (ruleset, game mechanics, theme, interface, information), and 3) behavioral (players, context) (Järvinen 2007, 55–56).

[8] It seems that the question is what would be gained by considering the relation between mechanics and semiotics as metaphoric.

In addition to the information layer which provides information about a game's current state, Järvinen also introduces the idea of a "theme" which "can be understood to function like a metaphor in relation to the game system" (Järvinen 2007, 77). Theme and informational layer differ in an important sense. On the level of the informational layer, "the game is presented purely in its own terms" (Järvinen 2007, 78), whereas the "game theme is the subject matter that is used in contextualizing the rule set and its game elements to other meanings than what the game system as an information system requires" (Järvinen 2007, 77).

Let me use chess as an example. On the level of the informational layer the chess figures are simply regarded as components of the game of chess, and their specific positioning provides information about the game state so that one could perhaps recognize certain game states as favorable for one party and unfavorable for the other party. If chess is understood as being themed in terms of the struggle of two opposing kingdoms, then we speak of a simulation. With *Star Wars Chess* (Järvinen 2007, 78), on the other hand, chess is "*thematised*, into another subject matter than the original game[...]" (Järvinen 2007, 42), namely the Star Wars universe. Notably, *Star Wars Chess* seems to be a thematization of second-order as opposed to a first order theme which, in the case of chess, might be war between two kingdoms or the like (see e.g. Järvinen 2007, 276). Is there a difference that it makes sense to consider only the second-order theme as metaphoric? At least, in Järvinen's case, it seems that themes in general are considered metaphors for the game system. This becomes apparent through the headline he chose for the relevant section, which he called "theme: metaphor for the ruleset" (Järvinen 2007, 77). Järvinen provides more evidence for this interpretation by claiming that games which do not feature a theme also do not have a metaphorical layer. So-called "abstract games"[9] such as "poker, Sudoku, sports" (Järvinen 2007, 78) only have an informational layer and would therefore not be metaphoric.

In line with Järvinen's idea of the game theme as a metaphor for the rule set, Celia Pearce applies the notion of a so-called "metanarrative" which works as "metaphorical overlay for a mathematical or logical structure" (Pearce 2004, 146). Pearce emphasizes that her notion

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[9] As abstract games one commonly understands games which feature abstract forms on the level of a game's semiotics instead of featuring realistic depictions of real world objects. As an example, one can say an abstract game features semiotically more abstract forms (squares and circles) than one which features game components which resemble human beings (see e.g. Begy 2010). One can object to the notion of abstract game by noting that the rules of a game are always already abstractions.

accounts particularly for "precomputer games" (Pearce 2004, 146). As an example, she distinguishes *Tic-Tac-Toe* as a game of pure structure with "no metastory whatever" from *Battleship*, a game which provides a "pure logical construction (the positioning and targeting of objects in a grid)" and an additional metastory which consists of the "battle between two seafaring fleets" (Pearce 2004, 146). Similarly to Järvinen, Pearce distinguishes between a pure game – which, according to Järvinen, would only have an informational layer that provides information about the game as such – and a game featuring a metanarrative, which, in Järvinen's terms, would be the theme.

With regard to Aarseth's distinction between game semiotics and game mechanics, one can say that Järvinen differentiates the semiotic layer into the informational and the thematic layer. Consequently, both Järvinen and Pearce assume that not all semiotics are metaphors for the game's mechanics, but only those semiotics which refer to another setting or system. It seems as if only games that feature a theme are considered metaphoric by Järvinen and Pearce. Consequently, one could assume that not all games are metaphoric, but only some. However, Järvinen at least did not only suggest that the informational layer of a game is a metaphor for the game system (see above). Later in his thesis, he also suggests that even "abstract games tend to employ [...] fundamental metaphorical concepts of our experience in terms of space and time" (Järvinen 2007, 282).

As such, one can say that Järvinen generally considers all kinds of games metaphoric – semiotically abstract games as well as thematic games – albeit in different ways.

Similarly, Jesper Juul also approaches the relation of metaphor and games from the distinction between mechanics and semiotics. What sets his model of games apart, however, is that it distinguishes between the layer of rules and the layer of fiction – which, however, are both simultaneously present in most games (Juul 2005, loc. 178). Unlike Järvinen, Juul does not differentiate the semiotic layer into an informational layer and a theme. Juul's fictional layer partly aligns with Järvinen's idea of a theme. Juul says games feature "a *fictional world*: The player controls a character; the game takes place in a city, in a jungle, or anywhere else" (Juul 2005, loc. 1175). Similarly to Aarseth's notion of game semiotics, Juul adds that the fictional world of a game is "projected in a variety of ways - using graphics, sound, text, advertising, the game manual" (Juul 2005, loc. 1179).

Concerned with the relation between these two layers of games, Juul originally thought that rules and fiction would have a completely arbitrary relationship, as Aarseth (2011) suggests, and that the rules would be much more important whereas the fiction could be neglected (Juul 2005, loc. 184; see also Aarseth 2004). Meanwhile, however, Juul holds that the relationship between rules and fiction is not completely arbitrary, but that the fictional layer and the rules can fit each other (Juul 2005, loc. 192–194). Juul demonstrates this thought by comparing two 2D space shooter games with the same mechanics (rules) but different semiotics (fiction). Although both games feature different fictions, both fictions match the rules. The first game, *Puls in Space* (Juul 1998) represents the "love/hate relationship that viewers may have with television personalities as a deep-space battle" (Juul 2005, loc. 193). The second game, *Game Liberation* (Juul 2000) features "an academic discussion [...] as a deep space battle" (Juul 2005, loc. 193–194). In the first game, the player shoots TV show hosts; in the second game, the player shoots invading concepts from a different academic paradigm. Juul's solution to explain this phenomenon is metaphor (or allegory): "the rules fit the representation – in an allegorical way" (Juul 2005, loc. 194).

In other words, the academic discussion, as well as the relationship between TV viewers and TV producers, have been represented through fairly conventional game mechanics – a space battle. The question is: what does Juul consider allegorical here? Is it the general relation between mechanics and semiotics, which these two cases merely exemplify? Or are both games allegorical because they are reskinned versions of some original space shooter (and if so: which)? Or are these games allegorical because the game *Puls in Space* is the "original" game, as it was developed earlier? Having played *Puls in Space,* I can say that the game resembles the basic structure of a generic 2D shooter game. Consequently, one can assume the example games to be "reskinned" versions of this generic shooter game mechanic, even though the first game with exactly these mechanics was *Puls in Space* itself. Hence, both example games are then reskinned versions of a generic battle game. However, I would assume that what Juul means with the term "allegoric" does not have so much to do with the reskinning of an original game, but rather with the fact that the love/hate relationship between TV viewers and TV personalities, as well as an academic discussion, have been "gamified", or, more specifically: space-shooterified. As such, this becomes a matter of the simulation of an abstract subject matter (e.g. love/hate relationship between TV hosts and TV viewers) through a more concrete setting (space battle).

Later, Juul relates the notion of simulation and metaphor with each other when he is talking about how elements of game fiction are represented through mechanics borrowed from other game genres, such as a pirate's fight in *Puzzle Pirates* (Three Rings Design 2004) being simulated with a puzzle game mechanic à la *Tetris* (Pajitnov, Gerasimov, and Pavlovsky 1984) and *Bejeweled* (PopCap Games 2000). Eventually, Juul suggests that a "player's real-world actions have a metaphorical relation to the fictional in-game action: Pressing of a controller button at the right time means making a perfect serve" (Juul 2005, loc. 1747–1748). Although this seems to fit better in the category of interface metaphors, it partly belongs to the category of game semiotics, since, for Juul, the mismatch between a game's semiotics, i.e. what the player sees on the screen, and the actions a player performs in front of the screen, is metaphoric. Part of this assumption is based on the game's semiotics, which can depict real-world actions and simultaneously communicate to the player which kind of action she performs. The other part consists of the input methods, which can form a contrast with the depicted and communicated actions. It is this contrast that Juul describes as metaphoric.

Finally, he also makes metaphor an interface problem, as I will show in the following section about game interfaces as metaphors.

As if he were following Järvinen's claim[10] that even abstract games would be metaphoric (see above), "visually abstract" (Begy 2010, 16) games (games which feature geometrical game components instead of anthropomorphic figures, for instance) are the focus of a Master's thesis on metaphor in computer games by Jason Begy (2010). Begy applies the concept of metaphor developed by Lakoff and Johnson (2003) to investigate how games which primarily feature semiotically abstract forms as game components and game environments can represent a specific theme or carry a certain meaning.

In doing so, he suggests a method called "metaphorical projection", which describes, in general terms, the "act of applying knowledge or experience from one area of experience to another" (Begy 2010, 45). With regard to games, metaphoric projection occurs when "a player finds meaning in a game by analyzing how the game is similar to another experience or system, which enables a deeper understanding of both" (Begy 2010, 12) – the system and the associated experience, one should add. Metaphorical projection is primarily possible due to

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[10] Begy refers to Järvinen's PhD thesis in his own thesis, but not to Järvinen's approach to metaphor.

"systemic correlations" between formal game characteristics and the projected experience or system (Begy 2010, 12). Begy opposes the concept of metaphorical projection on games with the notion of simulation when he states that "understanding a game as a metaphor for something else is very similar to understanding a game as a simulation" (Begy 2010, 55). Semiotically, abstract games are considered as being simulations if they are intentionally based on a source system by their designer, and thus their status as simulations relies either on "authorial intent" (Begy 2010, 28), or on the direct communication of their nature as a simulation of a given source system to the player via the game's semiotics as well as by means of paratextual signs such as its "title, rulebook, help files, or explanatory web sites" (Begy 2010, 29).

In Begy's logic, games are metaphoric if an interpreter projects an experience or a system onto the game which has originally not been intended by the game designer and which is thus called a "non-source system" (Begy 2010, 28). Accordingly, Begy distinguishes between experiential and structural metaphors. As such, for instance, Begy analyzes the rules of the abstract game *Primrose* (Rohrer 2009) and considers the game structure as a metaphor for martyrdom which has not been the original intention of the game's author (Begy 2010, 73–75). I will present Begy's example for an experiential metaphor in section 1.5 when I introduce what authors understand as metaphoric game experience.

Furthermore, Begy suggests that "metaphorical interpretations can be designed for" (Begy 2010, 12). However, this collides with Begy's idea that a simulation relies on authorial intent and communication of the source system. Thus, he contradicts himself: Begy suggests that authorial intent is an exclusive characteristic of simulations, since metaphorical projection is based on the projection of an unintended source system which is therefore called a "non-source system". Consequently, following Begy's framework, a designer cannot design for metaphorical projection as he would design a simulation. However, this also shows the intricacies of distinguishing simulations and metaphors, a fact Begy himself acknowledges (see Begy 2010, 55).

In a sense, Begy is also suggesting that all computer games (semiotically abstract as well as non-abstract ones) are potentially metaphoric, provided a different system than any intended by the designer as a source system can be projected onto a game on the basis of a systemic correlation between formal game elements and the projected system.

In line with Järvinen, but dissimilarly to Begy, Roelf Kromhout investigates, from the perspective of multi-modal metaphor research, the manner in which computer games implement different source-path-goal schemes, and the interferences of these schemes on the narrative (semiotics) and the ludic (mechanics) level of games. He analyzes the interplay of journey, story, and quest schemes, which are exemplifications of the source path-goal-schema on the level of game mechanics as well as in the narrative of games of different genres, such as *Grim Fandango* (Schafer and Lucas Arts 1998), *Half-Life 2* (Valve 2004), and *Heavy Rain* (Quantic Dream 2010) and examines the way in which these schemes structure the games on these different levels. His goal is to overcome an assumed gap between narratological and ludological positions[11] in game studies (Kromhout 2010).

Game mechanics which involve metaphor include puzzles or riddles, which Juul considers a small subset of games, and "the kind of single-solution tasks that constitutes a step in an adventure game" (2005, 93). Among others, Tronstad (2005) and Fernández Vara (2009) have shown that riddles in adventure games can involve metaphor as a central mechanism - meaning that the solution to such riddles requires a "combination of – and interaction between – two seemingly incompatible concepts [which] create a third, new and different concept" (Tronstad 2005). In these cases, the solution to such a riddle can allow a player to progress and open up new possibilities in a game. Solving these puzzles is a "non-trivial effort" of the kind which characterizes the traversal of ergodic texts or computer games (Aarseth 1997, 1). Apart from Tronstad and Fernández Vara's work in the field of computer games, semiotician Marcel Danesi described metaphor as a mechanism of riddles (Danesi 2002, 40–41, 44–45). Much earlier, even Aristotle related metaphors and riddles/enigmas closely: "clever enigmas furnish good metaphors; for metaphor is a kind of enigma" (Aristotle 1926, vol. 22, bk. 3 ch. 2).

From the perspective of game structure, Simon Penny considers games such as rugby, chess and *Quake* (id Software and Romero 1996) as "metaphorizing" war to different degrees (Penny 2004, 76). He holds "war and combat are clearly present in [these] games" (Penny 2004, 76). Penny suggests that tennis, by contrast, should be considered as metaphorizing commerce and diplomacy instead of war.

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[11] For the difference between narrative and ludologic positions see e.g. Frasca (2003c), Aarseth (2004; 2012), Juul (2005) Mäyrä (2008), Egenfeldt-Nielsen et.al. (2008).

> "[I]n tennis one does not claim territory, there is no body contact; it is even difficult to regard the ball as a metaphorized projectile. The narrative logic of the game seems to map more clearly the strategic exchange of a token (a metaphorization of commerce) or debate (a metaphorization of diplomacy)" (Penny 2004, 76).

Despite clearly referring to the game's structure, Penny uses the undefined notion of narrative logic here to account for the contextualization of a game's structure within domains such as war, commerce, or diplomacy, which lets a game object appear as such. The contextualization the individual structural game characteristics metaphorize these domains.

1.3 Game interfaces as metaphors

In a way, Aarseth's game semiotics, which primarily inform the player about the game state, can also be considered as game interface (see e.g. Schrape 2012) which is essential for the communication between the game and the player and ensures the closeness of the cybernetic feedback loop between player and game. German media philosopher Claus Pias refers to the cybernetic feedback loop when saying that computer games depend on:

> "an unlikely interaction between machines and humans. This interaction is unlikely on the one hand because the symbolic processes in digital computers are completely invisible and too fast to be perceived, and on the other hand because the analogue (or real) bodies of their users are absolutely incomprehensible for computers" (Pias 2002, translated by S.M.).

In order to make this communication more likely to happen, computers and users need to communicate with the help of "reciprocal representations" which happens through interfaces such as "screens, keyboards, mice, joysticks etc.", through which "the computer becomes anthropomorphized and the user becomes simultaneously mechanized" (Pias 2002; 2000). These interfaces thus ensure the reciprocal interaction of computer and player. Consequently, we can consider Aarseth's game semiotics as part of the interface of computer games. Järvinen suggested that the informational layer (which is also part of a game's semiotics) of a game provides a kind of metaphoric access to the game system.

In Järvinen's own model, however, the "interface is the medium through which players produce input to the system" (Järvinen 2007, 81). In other words, when speaking of 'interface', he primarily considers "input devices" such as keyboard, mouse, joystick, gamepad, microphone etc. (see also Pias above) as interfaces (Järvinen 2007, 81–82). Obviously, however, one can differentiate the interface from the user perspective into input and output devices. The output devices of the computer consists in Järvinen's model of the informational layer, which, in semiotic terms, consists of all sign modalities a computer game setup can possibly provide, such as visual and textual signs on the screen, auditive signs such as game sound, as well as tactile signs such as force feedback through which the computer informs the player. From the perspective of the computer, the order of input and output is reversed. In the tradition of Luhmannian systems theory (Luhmann 1995; 1984) player and computer can be conceptualized as two systems which observe each other as system-specific environments, i.e. although communication between the two is improbable (see Pias who also thinks in the tradition of system theory) they observe each other and interpret each other's output in their own terms. The game can only interpret the player's output in game terms, i.e. everything the player does will only trigger a reaction by the game if it can possibly recognize the player's action and can react with a change of system state. For example, *Pac-Man* (Namco 1980) can only observe what the player is doing with the input device and react to it with a change of the game state: if the player pushes the joystick to the left, Pac-Man will move to the left, provided there is enough space to move. However, when the player sneezes, the game will react in no way upon that, because it simply cannot observe this sneezing with its own means and consequently has no game state available with which to react to that sneezing. This would obviously be a different story if Pac-Man was controlled with a microphone (enables system to observe player) and the game system would react with a change of the game state upon that.

Considering the screen as an output device, Järvinen's suggestion to regard the semiotics or the informational layer of a game as metaphoric in order to help understand "the game as an information system" (Järvinen 2007, 76) suggests that all game semiotics are always already metaphoric. In this regard, no matter if the informational layer of a game refers to some external subject matter or not, it is already metaphoric. However, Järvinen is here undecided, as he also suggests that when a game's informational layer refers to some other subject matter – what he calls a "theme", or what Pearce calls "metanarrative" – this would also be

metaphoric as we have seen in the previous section. Disregarding his indecisiveness, this perspective strongly suggests considering the themes of games as interface metaphors whose primary function is to understand the functioning of the underlying game systems.

As already suggested, a field especially concerned with the analysis of communication between computers and humans and the intention to produce applicable knowledge for the design of interfaces in order to make the communication between these two agents more likely to happen (in terms of system theory) is human-computer-interaction (HCI). The notion of metaphor is very prominent within the field of HCI (e.g. Blackwell 2006; Barr 2003). Within the field of HCI, metaphor is considered a common technique, and is intended to provide "a cognitive resource to help users understand new concepts by analogy" (De Souza 2005, 79).

In the tradition of HCI, Michael Nitsche considers a virtual or simulated (see Aarseth 2005a) gun in a computer game metaphoric in the same way that "folders" and "recycle bins" on the desktop are usually addressed as part of the "desktop metaphor" which is the main example of a metaphor in HCI (see e.g. Blackwell 2006, 491; De Souza 2005, 79). To Nitsche's understanding, these metaphors bridge the distance between the user and the computer, as they are both rendered visually present in the mediated space[12], i.e. on the screen of a computer game. This distance, and, as such, the mediated space of computers in the first place occurs because digital computers cannot be as directly accessed as analog computers. The latter were operated with "knobs-and-dials" (Nitsche 2008, 33) or punch cards before screens became the main output device and could guide users in the use of computers. Virtual guns are to Nitsche a suitable exemplification of this bridged distance through metaphor as it facilitates the communication between a user and a computer since it appears more or less natural to the user how a simulated gun works. The virtual gun is triggered by pushing a button on the respective controller. This can have an impact on the game world in that respective sounds and graphics are (dis)played and it can influence the game state on the ruled-based layer of a game (see Nitsche 2008, 34). The advantage of such a metaphor is according to Nitsche that it does not "demand a consideration of the underlying code by the interactor and appear[s] natural" (Nitsche 2008, 35). Being also a part of what Nitsche calls the fictional world (see also "fiction" in Juul 2005), the gun is primarily consistent with the

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[12] The "mediated space [is] defined by the presentation, which is the space of the image plane and the use of this image including the cinematic form of presentation" (Nitsche 2008, 16).

fictional world of the game. So the player does not need to translate the idea of the gun back to what it means in terms of the system of computer code. Rather the player can just use the gun consistently within the fictional world (Nitsche 2008, 34–35).[13]

Contrary to Järvinen Nitsche clearly considers the simulated gun as an output device and thus as a metaphor in terms of Järvinen's game theme and also as a part of Aarseth's semiotics. This means one can consider Järvinen's and Pearce's understanding of metaphor as compatible to the notion of metaphor in HCI. Furthermore, as opposed to Aarseth who calls the symbolic space which computer games represent allegoric due to its deviation from "real space", Nitsche calls interface metaphors – which can be anything from a virtual gun in a game to the recycle bin on an operating system desktop – a high-level "abstraction" as opposed to the low-level abstraction as exemplified by knobs-and-dials. However, for Nitsche, the abstraction does not primarily consist of the relation between the real-world gun and the simulated gun, but between the simulated gun and the abstract and opaque operation of the computer, yet it "loosely" refers to the real-world (Nitsche 2008, 35).

Nitsche operates here with two ideas of metaphor. On the one hand, treating the recycle bin and the virtual gun on equal terms suggests that all virtual elements (i.e. simulated elements whose use can affect the state of the computational system) of a graphical user interface, no matter if desktop or the "fictional" game world, can be considered interface metaphors facilitating the use of the computer as they translate the inner workings of the computer into domains which can be readily understood by average users. On the other hand, he suggests that a simulated gun is generally metaphoric, because it is different from the "real-world" model (Nitsche 2008, 35), i.e. the virtual gun differs from the functioning of a gun as one expects it in the case of a real gun used for hunting or in the armed forces. Consequently, Nitsche uses the notion of metaphor in the same manner as the technical term in HCI. On the other hand, he also uses a notion of metaphor which is very close to the notion of a simulation.

In his article "Representation, enaction, and the ethics of simulation", Simon Penny (2004) also uses the terms 'simulation' and 'metaphorization' with regard to interfaces. Penny's

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[13] Additionally, a virtual gun, however, can introduce new effects which are inconsistent with the real world role-model of the metaphor. For instance rocket jumping which make the gun in the virtual world have different effects than a gun in the real world have (Nitsche 2008, 35).

primary interest is to investigate "implications of embodied involvement" in full body simulations with regard to possible real world consequences resulting from the training opportunities entertainment simulations provide (Penny 2004, 73), such as would be provided not only by "the full force-feedback VR suit fantasy of the early 1990s" (Penny 2004, 77), but also by other simulations which, to some degree, embody real-world behavior which can then be practiced in those simulations and later be easily transferred to the real world. Obviously, these questions are asked on the background of concerns such as, for instance, whether violent behavior can be learned and trained through entertainment simulations. The answer to this question is less of interest here than the observation that Penny again speaks of metaphorization within a context of simulation, here bodily action through the different interfaces of different simulation settings or environments.

> "Between the full force-feedback VR suit fantasy of the early 1990s (or even the direct neural jack) and the 'choose-your-own-adventure' book lies a vast range of technologies of simulation in which bodily action is more or less metaphorized. Often, interactive interfaces depend on complex layers of metaphorization of bodily behavior" (Penny 2004, 77).

Firstly, Penny assumes that the mode of representation is metaphoric in any case, and secondly, he distinguishes degrees of metaphorization. Consequently, the choose-your-own-adventure book metaphorizes bodily action to a greater degree than a full body VR suit, since it is more abstract than the VR suit. Both "metaphorize" whatever they simulate. Metaphorization seems here to account for a notion of de-familiarization. Penny supports his view with the concept of navigation with regard to simulated spaces. He holds that even in a simulation which tries to capture the experience of bodily action in the real world holistically, like the CAVE[14], navigation is merely a metaphor since

> "the user is navigating not a real space, but a pictorial representation of a space, according to certain culturally established pictorial conventions of spatial representation (such as perspective) established centuries ago for static images" (Penny 2004, 77).

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[14] CAVE is a "recursive acronym" for cave automatic environment and is described as "immersive virtual reality environment where projectors are directed to three, four, five or six of the walls of a room-sized cube" (Wikipedia; see also Cruz-Neira et al. 1992).

Penny is here in line with Aarseth insofar as he suggests that the representation of space is metaphoric; however, whereas Aarseth refers to the limited possibilities of the computer to represent space realistically, Penny refers to cultural conventions of pictorial representation of space, thereby referring, in this example, to perspective as a cultural convention of the construction of images (see e.g. Schwingeler 2011). For different reasons, both Penny and Aarseth consider the difference between the symbolic representation of space in a game and an experience of real space as metaphoric. In short, Penny's notion of metaphor with regard to simulation accounts for the missing degree of "literalness" that simulations possess, especially with regard to bodily actions (Penny 2004, 78).

So far, I have looked at output devices; however, input devices are also termed "metaphor" within the study of computer games. Focusing on "how one can [...] map the complex movements of a real sports [sic] onto the limited interaction space of videogame controllers" (Kayali and Purgathofer 2008, 106), Kayali and Purgathofer use the notion of metaphor especially with regard to the input devices which are applied in simulation games (for the term simulation game see Bogost (2006a)) which simulate real-world sports. As such, they mention the well-known example of the 100m sprint in *Summer Games* (Epyx 1984) on the Commodore 64, where "hefty button mashing or waggling of the joystick to simulate running" (Kayali and Purgathofer 2008, 108) are supposed to result in on-screen actions like sprinting or high diving. The authors observe that it is characteristic "of many fun sports games [...] to center the interaction around the use of one physical metaphor, which is used as a strong simulation" (Kayali and Purgathofer 2008, 108). In fact, they address the gap between the action the player performs on the controller and the action happening on the screen. While in the 100m sprint the player is moving the joystick as quickly as possible back and forth, the sprinter on the screen only moves in one direction from the left to the right.

Doris Rusch (2007) describes the game *Wario Ware: Smooth Moves* (Nintendo SPD and Intelligent Systems 2007) and how it makes the user hold and move the controller in a specific way.[15] To do so, it introduces metaphors such as "draw" or "drive" on the representational layer of the game and requires from the player a respective gesture with the controller. The clue of the game consists of a sudden change in the fictional context – the player prepares for a specific gesture, such as drawing, but has to perform it in a different context, which can

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[15] For a discussion of the game mechanics in also see Järvinen (2007, 266–274).

contain a change on the gameplay layer from a two-dimensional action to a three-dimensional action. As such, the game makes the player question the introduction of the initial metaphors, since they get re-signified through a change of context as well as gameplay (Rusch 2007). In the end, Rusch also names the relation between the action represented on the screen (e.g. drawing) and the matching controller action in the play space naturally metaphoric, although she indirectly suggests that the mappings between depicted actions and controller actions can vary in degree from very abstract mappings of controller-to-on-screen action to very analogical mappings. As a particularity, she mentions cases when the game requires a controller action which is opposite to the expected action originally required by a respective on-screen representation. As already suggested in the previous section, Juul had also suggested that "the player's real-world actions have a metaphorical relation to the fictional in-game action: pressing of a controller button at the right time means making a perfect serve" (Juul 2005, loc. 1747–1748) in the case of *Virtua Tennis* (Hitmaker 2000), thereby clearly relating the idea of metaphor to the concept of simulation.

Frasca even speaks of a "gamepad rhetoric" (Frasca 2007, 152) according to which a particular input device can convey meaning e.g. through its shape or through its configuration. Frasca refers here to the design researcher Donald Norman (Frasca 2007, 153) and his distinction between a natural and an arbitrary mapping of controls with such a controller. As an example for a natural mapping, Frasca mentions the simple observation that an avatar moves to the left when a user pushes the D-pad or the analog stick of a controller to the left. One can perhaps argue if this sort of mapping should really be called natural or, rather, conventional, a term which would account for the cultural element in this sort of mapping. Considering Norman's own definition, which speaks of "physical analogies and cultural standards" (Norman 1990, 23), the use of a controller can be understood as sort of a cultural technique.

What Frasca refers to as an arbitrary mapping, on the other hand, is at odds with physical analogies and established conventions. The latter is used in a game which simulates the drunkenness of an avatar in Frasca's example (Frasca 2007, 153). Yet, even this sort of arbitrary mapping can become conventional for the simulation of drunkenness at some point and, as such, constitutes a cultural standard. Therefore these distinctions are relative rather than absolute.

Nevertheless, what is important here is that Frasca speaks of the simulation of drunkenness and, as such, frames this sort of mapping also in a discourse of simulation. This can be said for all other examples in this category as well, and is also supported by Bogost's remark that what is called the desktop metaphor can be understood as a simulation of a work environment (see above). In particular, Penny frames his idea of metaphorization within a context of simulation. Additionally, the moment one does not ask any more how interface metaphors such as themes ease the understanding of an underlying system, but instead changes the direction of investigation and asks how the theme and the underlying system represent an external subject matter, one speaks of a simulation. As an example, one can say that the theme of two opposing kingdoms in the case of chess can be an interface metaphor to understand the underlying system; yet, one can simultaneously ask how well the kingdoms are simulated. Consequently, this allows one to ask: what does metaphor have to do with simulation? Why do these terms so often occur together within game studies? As I have already suggested, metaphor is to some extent framed within a discourse of HCI and of simulation. In the particular case of game studies, I remarked that out of the discourse of simulation emerged a discourse of game rhetoric which already became visible with Frasca's notion of the gamepad rhetoric in order to simulate drunkenness. Therefore, I will now introduce the discourse of game meaning or game rhetoric and its relation to metaphor as it has been constructed to date in game studies.

1.4 Game meaning – Rhetoric and hermeneutics

Metaphor also plays an important role within the discourse of the meaning of games – a discourse which can be divided into the fields of game rhetoric and game hermeneutics. Within a simple sender-receiver model of communication theory, as suggested by Shannon and Weaver (1964), one can say that rhetoric is more concerned with the process of communication starting from the sender (rhetor) and the means she applies in order to reach an intended effect in the audience (no matter if this effect is of an argumentative persuasion or a manipulative persuasion (see e.g. Schrape 2012, 32)). Hermeneutics, on the other hand, is concerned with the perspective of the receiver of a piece of communication and her means and ways to understand and interpret this communication. As such, rhetoric and hermeneutic can be seen as two sides of the same coin (cf. Schrape 2012, 89). Although rhetoric implies a

certain hermeneutic as much as hermeneutic implies a certain rhetoric, one can pragmatically, for the field of games, assume that game rhetoric has its starting point in the perspective of the game designer and game hermeneutics starts from the game player/interpreter. It should therefore be likely that game designers will more probably speak of game rhetoric whereas game analysts will tend to speak of game hermeneutic.

Game hermeneutics is so far rather underdeveloped with regard to the study of computer games, since only very few authors have referred to it (Aarseth 2003; 2004; Sicart 2009; Arjoranta 2011; Karhulahti 2012a; Leino 2012). However, none of these approaches has developed a comprehensive theory of game hermeneutics so far. That is why one can take these approaches as useful suggestions for a field to be developed.

Rhetoric, on the other hand, has become a prominent concept in the study of computer games, which is among others demonstrated by the number of authors whose work is concerned with this concept (Davidson 2003; Walz 2003; Frasca 2007; Järvinen 2007; Bogost 2007a; Paul 2012; Schrape 2012). The research on the rhetoric of games is, on the one hand, motivated by the desire to analyze how games express meaning and how they differ from other media or arts such as literature, film, poetry etc. in doing so. On the other hand, the rhetoric of computer games is of interest especially for a perspective on games which aims to use computer games functionally as a means of persuasion – usually about a subject matter which is outside of games, but for which games are supposed to be a suitable means to convey a certain message.

Games which represent the latter perspective can be called artgames (Bogost 2011, 11), newsgames (Bogost, Ferrari, and Schweizer 2010), advergames (Frasca 2003a, 225), docugames (Fullerton 2005; Frasca 2007, 102–108) and serious games (Abt 1987; Frasca 2007)[16]. Together, these can be gathered under the umbrella term "persuasive games" (Bogost 2007a) or "games with an agenda" (Frasca 2007, 26). Such games aim to persuade their users of a specific perspective on a subject matter which is external to a game, or which exists independently from the game but which is believed to be expressed through it. To give one example: *September 12* is self-described as a "simulation" and "not a game," since "you [the player] can't win and you can't lose" (Frasca 2003b). The player is given control of a missile

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[16] One has to add that Ian Bogost distinguishes between so-called serious games and persuasive games. Admitting that his definition for persuasive games is suitable to match also so-called serious games, Bogost considers persuasive games as a better alternative to the concept of serious games (Bogost 2007a, 59).

aiming system with which she can shoot at a city that is inhabited by two kinds of people – civilians and terrorists. If the player tries to shoot the terrorists she will inevitably hit civilians every now and then, since so-called "collateral damage" cannot be avoided. As a consequence, other civilians who mourn over the loss of fellow civilians will then turn into terrorists. The message of this computer game is then the same as in the movie *WarGames* (Bradham 1983) and can be summed up as "the only way to win the game is not to play it," or in other words: make love not war. It is not surprising that the field of game rhetoric is referred to in a thesis about metaphor and computer games. Metaphor is commonly closely related to classical rhetoric in which it either describes "all figures of speech" (Nöth 1995a, 128) or a specific figure of speech among others, such as irony or simile. It is equally no surprise that whenever the concept of rhetoric is applied to games, metaphor is usually not far off. In the following, I will introduce some approaches in the study of computer games in which the concept of metaphor plays a role within the context of the rhetoric of games.

Within the study of computer games, one can roughly distinguish between an internal and an external game rhetoric. According to Frasca, internal game rhetoric "deals with the construction of meaning within the game, while game rhetoric is also 'external' because it connects the game with the player's world view" (2007, 85).

1.4.1 Internal game rhetoric

In Frasca's view, Drew Davidson's (2003) and Steffen P. Walz's (2003) approaches to gameplay rhetoric are examples of an internal rhetoric as they focus on "how the games 'persuade' players to play them" (Frasca 2007, 85) by means of their own qualities. To Davidson, for instance, those means which allow players to trace their game progress (e.g. a highscore list) are one rhetorical means for games to keep players playing; others are the characteristics of the gameworld as well as the interfaces the player uses to play the game (Davidson in Frasca 2007, 84).

What is problematic with this point of view is that it assumes an inherent persuasive power in certain game elements, which, however, can never count for all players. Therefore, this approach has to be seen critically. For instance, in the case of association football, it is usually the case that what some people like about it is that you play it with your feet most of the time;

however, this is exactly what others do not like about it, though it is the same feature. It is equally thinkable that some players like to play *Pac-Man* with a joystick whereas others prefer a D-pad.

Järvinen's take on game rhetoric is a form of internal game rhetoric, too:

> "Game rhetoric is about how the game system persuades the players into interacting with it and how the system keeps players interested in the game's goals and challenges" (Järvinen 2007, 40).

For Järvinen, game rhetoric is particularly related to the game theme, i.e. games persuade primarily via the game theme (Frasca 2007, 41). As already introduced in 1.2.2, in Järvinen's view the game theme serves as a metaphor to understand the game system. Järvinen modifies Lakoff and Johnson's famous definition of metaphor accordingly:

> "A theme element as a set of rhetoric techniques affords the players to understand the game system and its rules in terms of another subject matter" (Järvinen 2007, 41).

As a simple example for game rhetoric, Järvinen suggests considering the ideal-typical historical moment when "chess pieces were modelled [sic] as to represent a kingdom and its army" (Järvinen 2007, 276). In his understanding, the kingdom is the subject matter which makes the player play the game. It is not the game system as such but the specific theme which contextualizes the game system that persuades the player to play the game.

The rhetorical function of a theme is furthermore "to assist the player and inform the player in solving the very concrete challenges, or puzzles, the game represents" (Järvinen 2007, 282). In addition to the theme Järvinen names "six types of game rhetoric" which are called gratification rhetoric, motivation rhetoric, goal rhetoric, means rhetoric, feedback rhetoric and outcome rhetoric (Järvinen 2007, 302). As such, the theme provides information about a game's goal, it can motivate a player's game actions, and it can also persuade a player to buy a certain game. For example, if a player prefers to play games about trains, she might choose to buy *Ticket to Ride* (Moon 2004).

Järvinen distinguishes this "theme-driven" rhetoric from a "rule-set driven" rhetoric which applies for games which do not have any thematic layer (Järvinen 2007, 285). He accounts hereby for the possibility that some games purely persuade players to play them because of their formal properties.

In Järvinen's view, the combination of theme and ruleset serves exclusively as an internal game rhetoric, in that it is only regarded under the premise that this combination persuades the player to start playing or keep playing a game. Furthermore, within Järvinen's understanding of rhetoric, metaphor does not have a meaning comparable with its status in, for instance, Aristotelian rhetoric, where it accounts for almost all figures of speech. In Järvinen's take, metaphor and rhetoric are almost synonymous because the theme, which is the rhetorical means in Järvinen's model, is always already metaphoric. As such, Järvinen does not distinguish between different figures of speech such as metaphor, synecdoche, metonymy, irony, simile and so on.

Aarseth's *Cybertext* makes use of concepts from the field of rhetoric which can be seen as part of an internal game rhetoric (Aarseth 1997; see also Schrape 2012, 26). He distinguishes between figures and tropes, following the rhetorician Pierre Fontanier (Aarseth 1997, 90). According to Schrape, Aarseth applies here a common distinction of rhetoric between "primarily syntactic figures" versus "primarily semantic tropes" (Schrape 2012, 26).

Aarseth bases the figures of cybertexts on the study of hypertext, which accounts for its nonlinearity in terms of "forking," "linking," and "jumping" on the syntactical layer of hypertexts (Aarseth 1997, 91). These figures can equally be found in cybertexts and thus in games such *The Elder Scrolls V: Skyrim* (Bethesda Game Studios 2011) when the player-character has the opportunity to follow different quests (for a definition of "quest" see Aarseth (Aarseth 2005b)), while at the same time, the chain of events is forking, and the player can therefore have more than one possible next step available to her at any given time. As such, the player can also link different quests with each other. Regarding the tropes, Aarseth names aporia and epiphany as the "intrinsic tropes" (Aarseth 1997, 90) or "master tropes" (Aarseth 1997, 181). Aporia can be identified in the gestalt of opponents in *Doom 3* (id Software 2004), or puzzles to be solved in *The Secret of Monkey Island* (Gilbert 1990). Aporia describes the element of resistance in games and it is the reason why they require the aforementioned "nontrivial effort" in the first place in order to be experienced. The "other" of aporia is epiphany, the trope which signifies "the sudden revelation that replaces the aporia, a seeming detail with an unexpected, salvaging effect: the link out" (Aarseth 1997, 91). In simple words, aporia and epiphany can be equated with problem and solution (Frasca 2007, 83). Games at play can be imagined as an ongoing interchange between aporia and epiphany.

As soon as one problem is solved, another problem is likely to occur, turning the hard-earned epiphany back into an aporia. This can remind us of the implied paradox in the non-teleological "to-and-fro movement of play" in Hans-Georg Gadamer (2004, 105). Despite providing a notion of game rhetoric, Aarseth has no notion of metaphor in his approach.

1.4.2 External game rhetoric

The main representatives of an external game rhetoric are Frasca himself, with his doctoral thesis *Play the Message. Play, Game and Videogame Rhetoric* (2007), and Ian Bogost in his book *Persuasive Games* (Bogost 2007a). In the following, I will briefly introduce Frasca's and Bogost's takes on rhetoric and relate them to metaphor. For reasons of scientific hygiene, I have to say that parts of the following summary can be found in a similar form in Schrape (Schrape 2012, 28–31), although I had developed a similar juxtaposition of concepts elsewhere (Möring forthcoming). However, apart from Schrape, Frasca and Bogost are still the main figures in game studies when it comes to external game rhetoric.

The development of Frasca's notion of game rhetoric can be retraced in his early published writings (Frasca 2001a; 2003a; also in Schrape 2012, 28–31). On the bottom line, Frasca's notion of rhetoric is closely related to his notion of simulation and his observation that all simulations are biased due to an unavoidable reductionism and subjectivity towards the modeled subject matter (Frasca 2003a, 225). Being not only a game scholar but also a practicing game designer, Frasca shifted the perspective, assuming not only that all kinds of simulations contain a certain bias, but that this bias can be made productive in terms of a "simulation rhetoric" (Frasca 2003a, 223). One can also speak of a shift from an unintentional but unavoidable bias to an intentional bias. This lead Frasca to pursue the development of "games with an agenda" – such as *Kabul Kaboom!* (Frasca 2001b), *Howard Dean for Iowa* (Powerful Robot Games and Persuasive Games 2003), and *September 12* – whose goal is to persuade the player of a specific perspective on a subject matter (or theme, to use Järvinen's term) through the implementation of a specific bias. In the case of *September 12,* this bias lies obviously in the fact that the best possible outcome of the game can only be reached by not playing it. Furthermore, this lead Frasca to analyze games with an agenda together with Ian

Bogost on their weblog *WaterCoolerGames.org* (Frasca 2007, 26) which was discontinued in 2009; yet, its archive is accessible via Ian Bogost's website www.bogost.com.

Bogost, Frasca's collaborator, calls these kinds of games persuasive games, and develops the concept of a procedural rhetoric of games which accounts for their persuasive capacity. Procedural rhetoric, in Bogost's terms, is delimited from non-procedural media since it is "the art of persuasion through rule-based representation and interactions rather than spoken word, writing, images, or moving pictures" (Bogost 2007a, ix). Slightly re-framed, Bogost also calls game rhetoric the "practice of using processes persuasively" (Bogost 2007a, 28).

Frasca criticizes Bogost's take as too narrow, since it focuses on the rules as the central element responsible for an external game rhetoric. He states: "even though I agree that rules are an essential aspect of game rhetoric, they cannot work independently from objects, ideas, texts, sounds and images" (Frasca 2007, 87). A similar concern has been raised by Christopher Paul (Paul 2012, 8), who holds that Bogost wrongly separates "procedures from other elements of discourse" in that the procedures in games cannot be evaluated in isolation – instead, they have to be considered with regard to their surrounding discourses (Paul 2012, 8). However, I hold that the problem is not that Bogost would not be taking the surrounding discourses into consideration. On the contrary, Bogost does very well in looking at the surrounding discourses of games addressing political issues (see, for instance, Bogost's discussion of political games within the context of political communication (Bogost 2007a, 67–98)). This is the case despite the fact that he does not make the methodological distinction between text and context that Paul deploys, presumably because he wants to make the risky but therefore seductive claim that the rules or procedures of so-called persuasive games can convey a certain message in themselves.

The criticism which has to be made here is simple but striking. Bogost assumes that the processes these persuasive games represent are represented by the processes or implied procedures of the games. However, this assumption leaves out the importance of elements such as semiotics (Aarseth) and/or theme (Järvinen) in the equation. The processes Bogost's games depict are often not represented by a game's mechanics but by the game's semiotics. Pre-electoral grass root work as represented by the game *Howard Dean for Iowa* (Bogost 2007a, 135–139) can also be depicted by static images – for instance, by showing campaign workers knocking on family homes or the like. Images like these can easily trigger an existing

understanding of how electoral campaigns work. As such, I believe the emphasis on the rules or procedures of persuasive games ignores this large aspect. An explanation for why this might be the case can be identified in the fact that, usually, rules and interactivity (or, better ergodicity (see Aarseth 1997)) are mentioned as the defining characteristic of games as opposed to other media. If one's goal is, hence, to argue for the specific rhetorical potential of games, this goal in a sense requires one to look for this potential in the unique characteristics of the form (which are rules). However, this can be a pitfall, as Frasca indicates, in that it is too narrow a perspective. Although intended as a mechanism of internal rhetoric, Järvinen's distinction between a rule-driven and a theme-driven rhetoric can be a useful alternative to investigate.

A second criticism made by Paul regards Bogost's claim that it is only specific games (i.e. "persuasive games"), as opposed to all games, that are able to make persuasive arguments (Paul 2012, 8). Paul opposes: "all games are persuasive and they are inevitably so" (Paul 2012, 9). In his view, persuasion depends neither on success nor on a specific aim to be reached with this persuasion. Making a sort of circular argument, Paul says instead that games are persuasive for all kinds of different reasons, which is demonstrated by the fact that they are played and used for these kinds of reasons (Paul 2012, 9). Understanding rhetoric as the "study of what is persuasive" (Campbell and Schultz Huxman in Paul 2012, 4), Paul turns the direction of the rhetorical process around. As I have described in the beginning of this section with Schrape (2012), rhetoric can be understood as one side of the same coin whose other side is hermeneutics. Thus, Paul's understanding of the persuasiveness of all games is argued from the hermeneutic side, i.e. from the side of understanding. This allows him to say that any reason for which a user finds a game persuasive to engage with (playing or buying the game, using it for social bonding, following the narrative etc. (Paul 2012, 9)) accounts for the persuasiveness of a game. In this regard a game is persuasive *to* somebody. As such, Paul's criticism to Bogost is only half-valid, since he is using a different point of view. Whereas Bogost argues from the point of view of specific "game objects" (namely games which represent specific topics in a specific way in order to convey a certain meaning), Paul argues from the point of view of the player who can potentially find any game persuasive for certain reasons and with certain intentions.

Both approaches, by Frasca and by Bogost, differ from Järvinen as they observe "games that aim to communicate in addition than [sic] entertaining" (Frasca 2007, 26). Whereas Järvinen's internal game rhetoric is limited to persuading the player to play the game, and thereby emphasizes the autotelic character of play (equal to Frasca's "entertaining" in the quote above), Bogost's and Frasca's approach aims primarily to persuade the player of another subject matter – which can be political, educational, or advertorial – for which a game is a medium. Thus, the game in Frasca's and Bogost's view is primarily a means of purposeful communication, rather than a means with an end only in itself.

In Frasca's own take, metaphor only appears when he suggests the pursuing of a "play rhetoric" which is different from his aforementioned "simulation rhetoric" in that the "main goal of play rhetoric as a nascent discipline would be to identify how play can convey meaning or rather how players construct meaning through play" (Frasca 2007, 87). Frasca does not look any more for a way by which to implement biases in simulations in order to convey a specific meaning. Instead, he is interested in how play as such can allow the carriage of a meaning which goes beyond a game's autotelicity, but which has not been "put" into the game either. Within this wider frame, Frasca aims to "identify some rhetorical techniques used in games in order to convey ideas" (Frasca 2007, 88). Following Aarseth's game ontology from 2003 (see Aarseth 2003), Frasca identifies three perspectives as the key dimensions for his play rhetoric (Frasca 2007, 91–92). Those are: playformance (Aarseth's gameplay), mechanics (Aarseth's game-structure), and playworld (Aarseth's game-world). Lakoff and Johnson's concept of metaphor comes into focus when Frasca compares two physical so-called "ball-in-a-maze puzzles" which feature the same mechanics – a ball has to be moved through a unicursal labyrinth from one end to the other and outmaneuver obstacles in terms holes on the way (see also Gazzard 2013) – but with different political themes (or semiotics), *Plan de los Aliados* (The Allied's Plan) represents the resistance of the Allies against Nazi Germany, while the second game, *La Reconquista de España*, is about Franco's victory in the Spanish Civil War (Frasca 2007, 97). Frasca makes then an observation which goes beyond the original simulation rhetoric and which can become crucial in this thesis, but which he did not, to my understanding, fully flesh out. In the framework of a simulation rhetoric, one would have said that each of these games represents through the playworld either Franco's or the Allies road to victory by managing to maneuver the ball to the final point of the labyrinth by avoiding the holes. Against his own original approach to simulation rhetoric Frasca insists:

> "The fact that the game could be [sic] either be played with an [sic] non-representative playworld or with one that, as in the two previous examples, supports two opposite ideological bands shows that these mechanics per se do not carry an ideology" (Frasca 2007, 98).

Frasca hereby also exemplifies his criticism towards Bogost's idea. Additionally, however, Frasca holds that the game mechanics themselves can carry meaning in that they exemplify central metaphors of Western culture (Frasca 2007, 99). However, instead of referring to the labyrinth as a central metaphor in Western culture, Frasca emphasizes the fact that the labyrinthine spatial structure of the game would exemplify time metaphors such as "time is linear," "time is a moving object" and "foreseeable future events are up (and ahead)" (Frasca 2007, 99). What he does not see, though, but what becomes apparent when we will have a look at Lakoff and Johnson's approach on metaphor, is that it is not the metaphor which becomes exemplified by the game, but rather the spatiality of the source domain of these metaphors.

In his book *Persuasive Games,* Bogost performs an interesting study of metaphor within persuasive games. Bogost analyzes the game *Tax Invaders* (Republican National Committee 2004) by the Republican National Committee – a reskinned version of *Space Invaders* which was used by the Republican Party in the 2004 US presidential election campaign in order to make an argument against planned tax policies by the Democrats. The invading aliens are reskinned as incoming taxes which the Democrat party aims to introduce. The user-controlled cannon is reskinned with the face of George W. Bush, protecting Republican taxpayers from these demands by shooting down the incoming taxes. For Bogost, this game "represents one of the most sophisticated examples of a procedural rhetorical frame at work in contemporary political discourse" (Bogost 2007a, 104). It is particularly interesting to him since it represents essential positions of Republican politics which George Lakoff (2002) has derived from the analysis of metaphors used in Republican language – in this particular case, the fact that Republican language generally frames "taxation as theft" (Bogost 2007a, 105). The increase of taxation is, in the language of the Republicans, framed as "an anthropomorphized enemy, a thief against whom you must defend yourself" (Bogost 2007a, 105). Suggesting, together with his analysis, a so-called procedural metaphor, Bogost tries to link his claims about procedural rhetoric also to metaphor. It is logical that a framework of analysis based on rhetoric should

also allow for metaphor, since metaphor has long been understood as a rhetorical means. Bogost's analysis is exemplarily problematic for many metaphoric readings of games, as I will argue later. I believe that the analysis shows some problems concerning the essential assumptions of procedural rhetoric which bring into question the framework as whole. For instance, Bogost's own analysis shows that the metaphoric meaning of the game is not derived from the game's procedures alone, since it is first of all established on a semiotic level (text and visuals). In addition, it is not necessary to make the game *Tax Invaders* in order to convey this particular message. The same would work with a comic as well. Apart from this, reading Bogost's analysis gives the impression that one learns much more about Republican tax rhetoric than about the game. As such, it is very questionable in what way the game contributes at all to understanding Republican tax rhetoric. In addition, Bogost speaks of a "literalization" (2007a, 106) of the metaphors involved in the game, which could indicate that games do not contain metaphors but their source domains (I am going to argue for this position in the end of chapter four and throughout chapter 5 – which I call de-metaphorization).

Particularly metaphoric "readings" of games from a perspective of external or procedural rhetoric allow for other striking observations. Most readings of this sort read games in terms of some existential topic, such as love (see *The Marriage*), work (see *Tetris*), mortality (see *Vanitasspillet*, *Passage*), or struggle/war (see *Tax Invaders*). In these readings, one can observe a distinct tendency to draw on metaphors primarily from the domain of SPACE as well as of STRUGGLE/WAR. This is true even, for instance, in Janet Murray's analysis of *Tetris* as exemplifying the American office work life (Murray 1997, 144). These domains are clearly very essential in human existential experience, and they are used to conceptualize all sorts of things; in addition, they are essential for a general understanding of games and play. Consequently, one can assume that at least those games which are interpreted according to the procedural rhetoric paradigm do perhaps convey nothing more than these two domains as they exemplify them. Therefore, it is only possible to interpret these games in terms of subject matters which consist of the same domains. I assume that these games are always already existential, in that they are spatial and feature some sort of struggle, and that is why they can be interpreted in such a way. Yet, this would force procedural rhetoric to re-phrase its basic assumptions. If my argument is convincing, then procedural rhetoric will have to say that

persuasive games do not convey any sort of argument or content because they are designed in a particular way. Instead they do so because they are games in the first place.

1.5 Metaphoric game experience

Begy was inspired by his supervisor Rusch, who is one of the few authors focusing on the notion of metaphor in her work and who tries to use it productively. As already mentioned, Begy (2010; 2011) made use of Rusch's concept called "experiential metaphor" (Rusch 2009) which to her accounts "for the phenomenon of understanding a gameplay experience as a physical visualisation of abstract ideas such as emotional processes or mental states" (Rusch 2009). As an example for an experiential metaphor, Rusch refers to Murray's aforementioned famous interpretation of *Tetris* as the "perfect enactment of the overtasked lives of Americans in the 1990s" (Murray 1997, 144; Rusch 2009). In other words, Murray says playing *Tetris* feels like working. *The Marriage* (Humble 2006) is another game which Rusch discusses as an example for an experiential metaphor, although she realizes that the game does "not actually model the experience of being in a relationship, but depicts from an outsider's view the reflection process about its mechanisms" (Rusch 2009). In other words, playing the game does not make Rusch feel like being in a relationship on an emotional level. but rather enables her to reflect about it on a cognitive level. Whereas the first example is about how a game "feels" while playing it, the second example is rather about the experience of the simulation of an experience.

Begy considers his own designed game *Tipping Point* (GAMBIT Game Lab 2009) "as an experiential metaphor for managing schoolwork over a semester" (Begy 2010, 59). In the game, the players cooperatively have to manage and finish ever more projects or tasks simultaneously in order to finish the game. These tasks are symbolized by tokens on a two-dimensional grid. Each project consists of a couple of connected tokens. The difficulty of placing all projects on the grid so that they can simultaneously grow and, eventually, disappear when finished, is the challenge of the game. To Begy, the game is supposed to make the player experience the playing of the game like she would experience a so-called crunch phase while finishing up a big project (Begy 2010, 63). The game is inspired by a concept from management studies called "firefighting" which is presented in the paper "Past the tipping

point: The persistence of firefighting in product development" (Repenning, Goncalves, and Black 2001).

Kayali and Purgathofer's interface metaphors can provide a certain experience which is related to the onscreen action as well, and might thus fit into Rusch's idea of an experiential metaphor (see Rusch 2009). Everybody who has played *Summer Games* extensively knows how hands and arms can hurt even after playing a computer game. Since, for instance, sprinting in *Summer Games* requires the player to waggle the joystick left and right in quick succession, the player does not feel his legs hurt as she might do in real life after ten iterations of a hundred-meter sprint. However, she might feel her arms and hands hurt. As such, the interface metaphor consists of the paradox relationship between the on-screen action depicted as running which, however, is performed by using the hands on the side of the player. The experience of the physical effort that is needed for the movement of the real hand/arm and not the on-screen legs can then be seen as an element of an experiential metaphor (Kayali and Purgathofer 2008, 108).

Game designer Will Wright equates the notion of metaphor with that of a mental model and reports that his initial design process for a game implies providing players with a basic metaphor with which they shall be enabled to play one of his simulation games when starting to play by drawing on prior knowledge from areas they are possibly more experienced with, and which allows them to build assumptions about the functioning of the system even though the model might later turn out to be wrong. For *The Sims* (Maxis 2000), this metaphor is the doll house, and for *SimCity* (Maxis Software and Wright 1989) players approach it as a train set. Over time, the experience of the actual system can change, and, as such, the mental model can change too (Wright in Pearce 2002). Accordingly, Wright considers the experience of playing *SimCity* "like gardening" (Wright in Pearce 2002).

On a more general level, Gordon Calleja critically analyzes the concept of immersion with regard to the experience of playing computer games (Calleja 2011). Analyzing in particular the gameplay experiences of massively multiplayer online role-playing game (MMORPG) *World of Warcraft* (Blizzard Entertainment 2004) and the massively multiplayer online first person shooter (MMOFPS) *Planetside* (Sony Online Entertainment 2003) Calleja develops a six-dimensional "player-involvement model" (Calleja 2011, 35–54). The six dimensions consist of kinaesthetic, spatial, shared, narrative, affective, and ludic involvement (Calleja

2011, 43–44). In addition, he distinguishes between macro- and micro-involvement, in which the latter applies for the experiences of ”moment-to-moment gameplay“ (see e.g. Salen and Zimmerman 2004); the former applies to what Calleja calls "off-line thinking," i.e. for example, the tactical and strategic involvement with a game while not actually playing it (Calleja 2011, 37). By the end of his study, Calleja proposes conceptualizing the general experience of playing computer games with the metaphor of incorporation rather than immersion (Calleja 2011, 167–180). Referring to Lakoff and Johnson's cognitive metaphor theory, Calleja emphasizes the experiential grounding of metaphor.

In his approach to the relation of emotions and gameplay, Leino proposes considering the notion of "gameworld" as a metaphor, given that games lack the complete worldness that would be necessary for a phenomenological approach to gameplay experience while still provides some similarity to the necessary worldness (Leino 2010, chap. 5).

1.6 Game language and discourse

Apart from game rhetoric, which is concerned with an internal and external rhetoric of the game object, one can obviously also take the language of and about games, as well as the narrower and broader cultural discourse with regard to metaphors that are used in these discourses, into consideration.

Paul's study *Wordplay and the Discourse of Video Games* deals with "the ways in which games are made to mean, create identifications and circulate meanings" (Paul 2012, 3). In other words, the study is concerned with the wide range of ways in which game objects contribute to meaning, as well as the many ways in which discourse affects the meaning of games.

> "Wordplay is about how games and their surrounding texts participate in a process by which meanings are created, identifications are built, ideas are circulated, and persuasion is attempted" (Paul 2012, 3).

Games are here understood in a broad sense as "cultural objects" (Paul 2012, 2), as they do not exist autonomously but are embedded in cultural contexts – such as the player, public discourses and so on. Paul argues for three central perspectives on how games can mean.

Theses perspectives contain "the *words* within and surrounding video games, the *design* of games and society, and the practices of *play* in games" (Paul 2012, 2).

As a cultural object, games consist of both text and context, and both influence the understanding and playing of games. In turn, the way in which games are played influences the cultural perception of games, and thus the context which completes the method to see games as cultural objects. The *word* in wordplay thus refers to the fact that the cultural perception of games is primarily negotiated through language. Accordingly, Paul divides his study into two main parts, context and text, and analyzes the discourse about games (context) as well as individual game objects and their use (text). Consequently, Paul investigates such disparate things as, for instance, the ways in which players are "socialized" to play a game, i.e. how game players are made familiar with games through accompanying texts such as an "introductory tutorial or an introductory booklet" or "commercials, game reviews, and game walkthroughs" which preconfigure a player's initial understanding of particular games which is expressed e.g. in playing it in a specific way (Paul 2012, 21). Similarly, Aarseth refers to different textual media which help players understand a game (Aarseth 2003). Paul writes accordingly:

> "Applying wordplay to the early moments of games addresses how design devices and technology function rhetorically to encourage a certain kind of play with examples of how design elements bring gamers into a game and keep them invested" (Paul 2012, 13).

Regarding its function, one might understand this take on game rhetoric/wordplay as being similar to what was called an internal rhetoric by Frasca in the last section. However, apart from game elements such as introductory tutorials, Paul also considers external texts such as walkthroughs and commercials as a part of this process. Additionally, Paul analyzes the public game discourse shaping the perception of computer games, or how discussions in internet forums and blogs influence game design when, for example, game design companies use these sources as inspirations for their design (Paul 2012, 14–15). On the textual side, Paul investigates specific games, like, for instance, the humor in *Grand Theft Auto IV* (Rockstar North 2008) which is much more in the focus of the gamer's attention than, for instance, the violence that is featured by the game as well. In this regard, Paul aims to study here "how the rhetorical forces embedded within a game impact how it is played and received" (Paul 2012,

16). In another chapter, Paul investigates the "planned obsolescence" of EA Sports' games such as the *FIFA* series (see e.g. Electronic Arts Canada 2001; Electronic Arts Canada 2009; Electronic Arts Canada 2012). He observes that new iterations of these games are published in a yearly cycle featuring updates of team rosters, a couple of mostly minor game structure tweaks – "just enough to be worth buying the new version of the game" – and an "increasing integration of online play" combined with an increasing position of power of game developers (Paul 2012, 17). Here, the marketing of EA Sports is the focus of the study, together with how it "change[s] the context for the reception of their games and craft a particular discursive environment for sports gaming" (Paul 2012, 17).

In this regard, Paul's take on game language is very broad. He applies the notion of language as a substitute for "discourse", including within it possible power structures contained in a specific form of meaning (see Foucault's *Discipline and Punish* (1995)). The notion of metaphor, however, does not play any role in Paul's study.

With regard specifically to the language of games, that is, the language that is used to name specific components of games or which is applied during a game, an interesting question is, which metaphors are used to describe which aspects of games? An overview of recurring metaphors and source domains in different games could provide useful knowledge about the conceptual foundation of games and play, and could perhaps bring us closer to an understanding of play and games as such.

In my Bachelor's thesis, I analyzed the language that is used by radio and television commentators to describe a football match to the audience (Möring 2007). My hypothesis was that radio reporters need more creative metaphors to describe football as they have to compensate for the missing visual channel for radio listeners. The opposite turned out to be true, so I concluded that radio reporters are forced to use highly conventionalized language and thus highly conventionalized metaphors due to the missing visual channel and the high frequency of spoken language on the radio (radio reporters of football matches speak three times as many words per minute than television reporters (see Möring 2007)). On the contrary, the television reporter uses more creative metaphors, since he does not have to compensate for the missing visual information, but rather complements it, whereas the radio reporter has to generate the missing visual information of television. Although my case study featured only one match, it provided enough data to get an overview of common metaphors and source domains

used to speak about football. It was, in Saussure's terms, possible to draw some conclusions from the analyzed parole (language in everyday use) to the langue (language as a system) (Saussure 1986). The metaphoric vocabulary of football could be confirmed in comparison to other scholarly investigations of metaphors in the language of football. Unsurprisingly, the source domain WAR provides almost half the metaphoric vocabulary the language of football consists of (see Möring 2007). It is certainly no coincidence that Lakoff and Johnson's main and oft-quoted example for a conceptual metaphor is ARGUMENT IS WAR (Lakoff and Johnson 2003, 6). However, instead of assuming that football is a very violent game (which it definitely can be at very rare times – see, for instance, the match between the Netherlands and Spain in the 2010 FIFA World Cup Final) one could also say that using war metaphors is so common in everyday language that even harmless, non-violent situations which feature an agonistic structure can be termed war. In opposition to Lakoff and Johnson, this does not necessarily mean that these situations are indeed experienced as war-like.

Within the realm of the study of computer games, Astrid Ensslin performs a linguistic discourse analysis in which she focuses on "the way in which videogames and their makers convey meanings to their audiences, and the way in which gamers and other stakeholders communicate and negotiate meaning between themselves" (Ensslin 2012, 6). In the course of her research, she deals with the question of how metaphors "reflect and shape the way different members of society think about playing games" (Ensslin 2012, 9, 65). Ensslin observes, for instance, that players of simulation games such as the football simulation *FIFA 10* (Electronic Arts Canada 2009) or first person shooter games such as *Call of Duty* (Treyarch and Infinity Ward 2003) use terminology from the semantic realm of these games while playing them. In the case of *Call of Duty* this is the domain of war, while, in the case of *FIFA 10,* it is the domain of football (Ensslin 2012, 75). However, she acknowledges that many "mainstream" games feature some kind of competition or antagonism (e.g. in competitive multiplayer gameplay as well as in antagonistic gameworld settings in single-player games) (Ensslin 2012, 75, 76), which tends to support language from the realm of war. Analyzing the so called GameCorp[17], Ensslin notices that players often use terms such as "to beat,"

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[17] GameCorp is a linguistic corpus which consists of written and spoken language commenting on games and gaming ("meta-videogame and meta-gaming language") which covers "online videogame magazine articles (including reader comments), gamer forum posts, gamer chat and the oral,

"victory," "defeat," and "win" from the "semantic field of war." Apart from that, Ensslin also acknowledges the existence of what she calls "in-game metaphors" such as "life" and "death" which are closely tied to success and failure in games (Ensslin 2012, 94–95). Together with the war metaphors, these can be considered as describing fundamental existential characteristics of many games. This will be the leading topic in the final chapter of this thesis.

1.7 Research questions, structure of the thesis, method and object of study

This literature review has shown that the concept of metaphor seems to play a role in central fields of game studies such as the ontology of games, game interfaces, game meaning, game experience and game language. Covering all these fields individually appears too broad for one dissertation. Therefore, it is reasonable to take particular angles which cover these aspects. This is best done by formulating overarching research questions to guide the investigation.

Accordingly, this thesis will take the following as its guiding research questions. What are the motivations and effects of calling games metaphors in the game studies discourse? What problems arise from that with regard to other established concepts in game studies such as simulation and procedural rhetoric? How do the concepts and insights of contemporary metaphor theory affect the applicability of the notion of metaphor with regard to games?

These questions are admittedly very broad, and can therefore be divided into sub-questions which can answer parts of the overarching questions. In line with observations made in 1.2.1 regarding the presence of the concept of metaphor in non-computer game and play theories, one can hypothesize that games and play are always already metaphoric. This hypothesis can then be rephrased into the first sub-question: Are games and play always already metaphoric? This question will be tackled in Chapter 3, entitled "Metaphor, representation, and play." In this chapter, I will observe an affinity between the concepts of metaphor, representation, and play. It shall become evident that these three concepts are used to explain each other. As such, for instance, play is, according to different theories, explained as representational and metaphoric. On the other hand, metaphor is explained as representational and as some sort of play. At the same time, some conceptualizations of representation use concepts of metaphor

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conversational discourse of gamers during gameplay" (Ensslin 2012, 77). The corpus was produced between January 2009 and July 2010 and it consists of 280.000 linguistic utterances (Ensslin 2012, 77).

and play for explanation. Thus, one can assume a general affinity between these three notions. I will therefore try to disentangle this triangle of terms and show how these three concepts are always already related with each other by arguing for an equiprimordial relationship between these three terms. I will draw on theories of play and games by Johan Huizinga (1998), Roger Caillois (2001), Ludwig Wittgenstein (1958), Gregory Bateson (2000), Ernst Gombrich (1963a), Eugen Fink (1968), Hans-Georg Gadamer (2004), Brian Sutton-Smith (1997), Kendall Walton (1993), and Israel Scheffler (1992). I will discuss the ideas of the separateness of play, play as representation and play as a dual structure as potential pre-conditions for an essential relation between metaphor, representation, and play. Furthermore, I will suggest a structural similarity between metaphor, representation, and play, in that all three concepts consist of triadic structures and all of them can be understood as paradoxes. Drawing on approaches which combine the concepts of metaphor, representation, and play, such as those proposed by Bateson, Gombrich, Walton, and Fink, I will discuss the striking observation that these four approaches use all three notions to explain each other. Yet, the similarity of these concepts makes it at some points difficult to distinguish what one is actually speaking of. These observations will then be demonstrated in a re-reading of Huizinga's cultural evolutionary take on play, which will allow an understanding of these three concepts as equiprimordial for human culture. With Huizinga, one can develop an evolutionary model of metaphor, representation, and play based on a mechanism of competition (agon) which allows us to conceptualize cultural development not necessarily as being based on play as Huizinga suggests, but as based on competition. Finally, one can consider play, representation, and metaphor as a form of praxis which is repeated on the level of concepts and thoughts, and therefore allows for two observer positions: the position of the first-order praxis and the position of the second-order reflection which, in itself, again is a form of praxis. This distinction between play, metaphor and representation as a form of action versus a reflection, or presentation versus representation of this action in terms of something else, is an essential distinction not only in the discourse regarding games and play, but also in philosophy more generally. This chapter shows how metaphor, representation, and play can be thought of as always already related with each other.

The second sub-question concerning the research question derives from the observation in the literature review that the notion of metaphor very often appears together with the concept of simulation. We have seen that simulation is an established concept in game studies, and has

often been referred to directly. The notion of metaphor seems to occur rather incidentally. The sub-questions this observation motivates are then: Why are games which are considered simulations also considered metaphoric? Do the two concepts interfere and end in a tautology? And if so, how can they be reconciled? They derive from the overarching questions, "What are the motivations and effects of calling games metaphors in the game studies discourse?", and, "Which problems arise from that with regard to other established concepts in game studies?" These questions will be dealt with in chapter 4, entitled "The metaphor-simulation dilemma." A closer look into the game studies discourse, as well as definitions of metaphor and simulations, shows that the notions of simulation and of metaphor are so similar that this alone necessitates an analysis of how the two notions are used in game studies, and what implications such usage carries. Particularly in the game studies discourse, the notion of metaphor is, in addition, often used from the perspective of the procedural rhetoric paradigm, and more specifically within a games-as-art discourse. A missing definition of the notion of metaphor makes its application on the background of art suspicious, leading to the assumption that the conceptualization of so-called artgames as metaphoric is of an ideological nature, motivated by the desire to make these games appear more interesting although they are formally no different from mundane games. Further observation will show that there has been a development of terms in game studies which started with the conceptualization of games as simulation, developed further into the paradigm of procedural rhetoric, which conceptualizes games as procedural representations, and eventually culminated in the notion of "proceduralist artgames", one of whose descriptive characteristics is that they work metaphorically.

The problem which becomes apparent from these observations is that one can suppose that one of the two notions, metaphor and simulation, is superfluous. Therefore, I am labeling the problem to be dealt with in this chapter the metaphor-simulation dilemma. Yet, instead of abandoning one of the terms, I will set out to reconcile the two notions for the study of computer games. In a discussion consisting of six steps, I will suggest that artgames as well as game simulations are synecdochic instead of metaphoric, due to their nature as representations. In a next step, I will suggest distinguishing between a first-order simulation and a second-order simulation, of which the latter can be analytically understood as metaphoric. I will also hold that this "metaphoricity" can vanish when the secondary use of a simulation becomes conventionalized as its primary use. In a further step, philosophy of

science and metaphor theory will allow me to relate metaphor and simulation via the notion of the model which provides a useful link between the two terms. Eventually, I will perform a case study of the game *The Marriage* (2006), showing that the notions of simulation and metaphor can be reconciled, through an argument that *The Marriage* is a simulation of our metaphorically structured thought model of love. In a last step, I will critically argue that *The Marriage,* even if not understood as a simulation of love, still features the essential source domain of many love metaphors, which is SPACE. As such, one can argue with what is called the Eliza effect (Joseph Weizenbaum in Wardrip-Fruin 2009, 24) for a de-metaphorization of games when playing the game, since it is not necessary to understand a game in a metaphoric way in order to be able to play it.

The third sub-question concerns the concept of metaphor in game meaning or game rhetoric. It derives from the observation that interpretations of games, in order to reveal some deeper or hidden meaning, often frame games as metaphors. The topics which are then interpreted are usually very existential (work, struggle, love, life, death etc.). This observation can be contrasted with conceptualizations from game and play theories which regard all games as always already existential. Hence the question here is: How can one reasonably resolve the paradox that the metaphoric meaning of games comes down to existentialism while games as such are always already understood as existential? To answer this question I will propose a distinction between a text hermeneutic and an existential hermeneutic of games. This is why this question will be dealt with in Chapter 5, named "Existential hermeneutic and textual hermeneutic of games." Commonly, metaphoric interpretations of games use the perspective of procedural rhetoric. This will be exemplified by means of Janet Murray's interpretation of *Tetris* and Ian Bogost's reading of *Tax Invaders*. This chapter will contain a criticism of the framework of procedural rhetoric and problematize the fact that procedural rhetoric looks at games as some sort of text. This becomes problematic due to its interference with the essential claim of procedural rhetoric, which is that particularly persuasive games convey meaning through the procedures in a game. I will argue that, because of this textual perspective, procedural rhetoric largely focuses on the textual or semiotic aspects of games. In this regard I will furthermore argue that these interpretations take games as texts, observing them in retrospect rather than in the moment of play. In line with an essential existentialism, I will hold that many games, and particularly those which exhibit a gameplay condition (Leino 2010), are always already existential in themselves. It is on this basis that, as an alternative, I

will suggest distinguishing a textual hermeneutic and an existential hermeneutic as two possible hermeneutics with regard to games. I will hold that the existentiality in playing a game is a different one than the one which is represented by games on the textual layer. Furthermore, I will hold that an existential hermeneutic is primordial to a textual hermeneutic. Here again I will argue for a de-metaphorization of games. Since the games analyzed here are always existential, it is tautological to "read" in them some sort of existential topic which is always already understood in the same terms which are featured by many games – SPACE and STRUGGLE/AGON.

I particularly hope to show that playing games as such is already an existential task and does not necessarily require a game designer who tries to make her game *show* some existentialism while it *is* existential. In addition, this will demonstrate the fact that many more games are already existential than those which are on purpose intended to be so.

In order to answer the research questions, I will focus on two objects of study. On the one hand, my objects of study shall be conceptualizations of games as metaphoric, both those to be found within the game studies discourse, and those which have affected the game studies discourse from the outside. On the other hand, I shall also analyze games which are termed metaphoric and compare them with games which are not explicitly called metaphoric.

The theoretical background on which I shall pursue my research consists of concepts and theories from game studies (as already introduced), contemporary metaphor theory, theories of play and games, cultural theory, media studies and philosophy.

With this study, I firstly aim to make game studies aware of the existence of a metaphor discourse. Secondly, I aim to provide an understanding of possible relationships between games and metaphor which allows for a more informed use of the notion of metaphor in the future inside and outside of game studies.

Before I set out for these three chapters, I will introduce different notions of metaphor – in particular, the cognitive linguistic approach to metaphor by Lakoff and Johnson (2003), despite being the most popular one in game studies, it remains, in my view, insufficiently introduced and understood.

Chapter 2 – Metaphor theory

2 Metaphor theories

As demonstrated in the introductory chapter, there exists a metaphor discourse in game studies; yet, the theoretical basis for this discourse is rather weak. Most accounts of metaphor and (or in) games rely on a) a vague common-sense understanding of metaphor or b) a vague version of George Lakoff and Mark Johnson's approach to metaphor (2003). A systematic reflection on metaphor as a phenomenon is as missing as knowledge of different metaphor theories. Therefore, I am going to introduce major lines of metaphor theory in this chapter with an emphasis on Lakoff and Johnson's metaphor theory, since it is the one which is applied the most in game studies.

Originating from ancient Greek philosophers such as Plato, Aristotle, and the Roman Cicero, metaphor theory became particularly popular over the course of the twentieth century and produced a huge amount of theory and scholarly texts concerning the phenomenon in question. Since the ancient Greeks, metaphor has been related to rhetoric as a figure of speech which was supposed to make a speech more interesting and effective. From a macro perspective, one can say that, in the twentieth century, a paradigm shift has taken place in metaphor theory, which is particularly represented by the cognitive linguistic view of metaphor whose most popular representatives are Lakoff and Johnson (2003). Their most striking claim – which they oppose to a rather polemical understanding of classical metaphor theory – says that metaphor is not a matter of words or language but a matter of thought. Hence, linguistic metaphors are merely the expression of an essential way in which we think. Another important claim from this theory is therefore that metaphor is not a means of artistic or elaborate speech, but rather of everyday thought, and, as such, also of everyday language. Therefore, metaphor is much more ubiquitous than had been previously thought.

Clearly, Lakoff and Johnson's theory did not emerge out of nothing, but had significant predecessors who are not all acknowledged in their work. Olaf Jäkel's criticism shows that, for instance, influential German philosophers of metaphor such as Hans Blumenberg (2011 [1960]), Harald Weinrich (1976), and even Immanuel Kant (see Jäkel 1999, 12–15) had

provided "forgotten contributions to the cognitive theory of metaphor" (Jäkel 1999) long before Lakoff and Johnson, but were not acknowledged by them. This is, as Jäkel correctly remarks, due to the German discourse which requires some effort to access, particularly for non-German speaking authors. Yet, even major figures from the English-speaking metaphor discourse can be considered unacknowledged contributors to that theory. Among this group we can include, for instance, Ivor Armstrong Richards (2001) and Max Black (1954).

The rise of metaphor research in the twentieth century led German philologist Eckard Rolf to typify at least twenty-five different metaphor theories in his book *Metaphertheorien* (2005). For a better overview, he suggests four categories into which to classify the different theories:

1. structural theories, primarily focusing on the structure of metaphor (e.g. Cicero, Ivor Armstrong Richards, Max Black, Monroe C. Beardsley, Eva Feder Kittay, Harald Weinrich, Nelson Goodman, Aristotle, Roman Jakobson and Jacques Lacan),

2. pragmatic theories, primarily focusing on pragmatic aspects of metaphor (e.g. John R. Searle, Paul Grice, Donald Davidson),

3. semantic theories, primarily focusing on semantic aspects of metaphor (e.g. Paul Ricœur),

4. functional theories, primarily focusing on functional aspects (e.g. Karl Bühler, Hans Blumenberg, Rousseau and Jacques Derrida, George Lakoff and Mark Johnson) (see Rolf 2005).

Rolf's work demonstrates the sheer number of existing theories and analyzes the partly strikingly obvious but sometimes very subtle distinctions existing between them. It can be intimidating having to choose a small number of approaches to keep one's own work coherent, especially given that the advantage of one approach is the disadvantage of another.

Another classification has been proposed by Monroe Beardsley, who distinguishes between an emotive theory, a comparison theory, an iconic signification theory, and a verbal-opposition theory (Hausman 1989, 25). Carl R. Hausman's *Metaphor and Art* admits that "the task of reviewing the many theories of metaphor proposed even within the past fifteen or twenty years [from 1989, S.M.] would be enormous" (1989, 22). He thus distinguishes between two conflicting approaches on metaphor, the originativist and the reductionist view (Hausman 1989, 22). The German philosopher Anselm Haverkamp remarks in the introduction to his

famous article collection on metaphor *Theorie der Metapher* "[es] gibt keine einheitliche Metaphernforschung und eine Theorie der Metapher nur als Sammelnamen konkurrierender Ansätze" (Haverkamp 1996, 2; also quoted by Rolf 2005, 2) ("there is no such thing as unified research of metaphor and a theory of metaphor exists only as a collective name for competing approaches"). Max Black observed in 1979 the existence of a large body of text devoted to metaphor and the seeming limitlessness of the topic (Black 1993, 19–20). In the 1930s theories of metaphor were still a rarity. This has changed with the influential works of Ivor Armstrong Richards, Max Black and George Lakoff and Mark Johnson. In his article Black mentions Warren Shible's bibliography which counted already in 1971 "four thousand titles" (Black, 1993, 20) dealing with metaphor theory. The German metaphor researcher Cornelia Müller remarks "metaphor continues to be a hot topic, and the number of the publications dealing with it has exploded over the past thirty years" (Müller 2008, 19).

The number of theories – as well as the number of fields and disciplines in which metaphor is researched (philosophy, linguistics, art, semiotics, rhetoric, poetics, cognitive sciences, computer sciences, human computer interfaces etc.) – is demonstrating its ubiquity. This is part of the reason why the HCI researcher Alan Blackwell suggests that "defining metaphor is not simple" (Blackwell 2006, 494). According to a criticism by Müller it seems to be common practice in metaphor research to "focus on one kind of theory while reducing the accounts of competing metaphor theories, at best, to the discussion of a few controversial points" (2008, 18).

In game studies, we can observe a similar and yet different tendency. Approaches to metaphor and games by Helene Madsen and Troels Degn Johansson (2002), Ian Bogost (2005; 2006b; 2007a), Doris Rusch (2009), Gordon Calleja (2011, 167–169) and Jason Begy (2010; 2011) are based on the prominent (cognitive) metaphor theory proposed by Lakoff and Johnson (2003; Lakoff 1987; Johnson 1987; Lakoff 1993; Lakoff and Johnson 1999; see also Kövecses 2010). This is, on the one hand, not surprising, as Lakoff and Johnson's "contribution [...] [is] an important and significant step forward in the tradition of philosophical, rhetorical, and psychological theories of metaphors" (Müller 2008, 56). As I have already suggested, Lakoff and Johnson have significantly influenced and changed the contemporary understanding of metaphor at the end of the last century. However, as I have also suggested, most other mentions of the term 'metaphor' in game studies rely on some vague common-sense

understanding. In this regard, the understanding of metaphor in game studies itself is very limited, either to a vague understanding of the concept or to only one, albeit influential, approach to metaphor which is often not even fully understood itself. This is certainly due in large part to the paucity of systematic work which has been done so far with regard to metaphor and games.

Focusing only on one theory, particularly in a field like game studies, is problematic for the following reasons. One risks validating the theory through its application to games instead of showing in which way this particular theory has more potential than other metaphor theories which could also have been used. In other words, one can assume that the application of metaphor theory to games so far rather says more about metaphors than about metaphor and games. For example, if one relies primarily on Lakoff and Johnson's concept of metaphor, one might find respective conceptual metaphors which structure the experience, understanding and thought of members of a culture in computer games as well. As such, for instance, Madsen and Degn Johansson (2002) found the structural metaphor LIFE IS A JOURNEY present in Madsen's game *Vanitasspillet* (2001). However, this finding will only validate the theory in reverse. Yet, I believe the potential of a theory will only be realized if one can compare it to other theories and show in which ways they are different. In addition, a focus on only one theory conceals the fact that metaphor theory provides a rich arsenal of different approaches which could also have been applied.

Acknowledging these problems, pragmatic reasons lead me to make a reasonable selection of theories in order to keep the scope of this thesis research manageable. Therefore, I shall orient myself to the three most common kinds of metaphor theories, which are:

- the classical substitution theory of metaphor,
- the comparison theory of metaphor, and
- the modern interaction theory of metaphor including the cognitive linguistic approach to metaphor (for all three see Nöth 1995a, 129; Kurz 2004; Ricœur 2003a, 20, 75; Sharpe 2005, 589–590).

These partly mirror commonplace beliefs about metaphor (especially the classic substitution theory) and allow a perspective on how the theory of metaphor has developed from

Aristotle's substitution view into the cognitive linguistic view on metaphor. I am choosing these theories for two reasons.

Firstly, these theories connect to the ideas of metaphor in the game studies discourse. Secondly, since a systematic take on metaphor and games has been missing so far, it is good advice to start with rather basic assumptions instead of confronting games with the most complex theories of metaphor.

As such, the next step is to introduce the three types of metaphor theory, and expand at some length on the cognitive linguistic view on metaphor since this one will necessarily be central in this thesis.

2.1 Substitution view of metaphor

The substitution theory is perhaps the earliest characterization of metaphor (Schmitz-Emans 2012). It describes the mechanisms of metaphor as they are widely understood in common sense today: namely, as the substitution of one term by another based on an analogy that exists between the substituted term and the substituting term. Aristotle has for a long time been assumed to be the originator of this theory (Kurz 2004, 7; Schmitz-Emans 2012) and therefore of the theory of metaphor as such (Rolf 2005). Although Quintilian is increasingly seen as the originator of this theory (Müller 2008, 121) Aristotle can still be seen as one of its major precursors. His well-known definition from his *Poetics* goes as follows:

> "Metaphor is the application of a strange term either transferred from the genus and applied to the species or from the species and applied to the genus, or from one species to another or else by analogy" (Aristotle 1932, 1457b).

Aristotle's definition carries several implications to the idea of metaphor, which I will discuss in the following. Those implications are strangeness (Ricœur 2003a), analogy (Nöth 1995a, 128), transference (Nöth 1995a, 128) and, of course, substitution.

The idea of strangeness is central to Aristotle's definition. It is implied in the opposition of using a "metaphorical" word instead of an "ordinary" one (Aristotle 1932, 1457b). Ordinary words are common-sense, and, therefore, "used by everybody". Metaphors are rather strange words and therefore only "used by some". Aristotle is therefore often understood to be

claiming that metaphor was a means for poetry and artistic language, which, by this token, is thought to be different from ordinary language, therefore automatically suggesting that common words are used to express different and strange things which are usually not related with each other. Later, this led to the well-known distinction between figurative and literal language. It would appear that metaphor is the characterizing element of this particular figurative language, and must therefore be primarily the business a) of the few people who use it (poets) and b) of the rather figurative language it is part of (the poetic and artistic realm). Ricœur, however, argues that the distinction between literal and figurative language had not been made by Aristotle himself, and was thus wrongly attributed to him (Ricœur 2003a, 20). Moreover, Müller convincingly argues that Aristotle does not characterize metaphor as being only part of poetic and figurative language. Instead, he "characterizes metaphor as a natural form of ordinary language, a form that is especially suitable for a specific type of poetic text: iambic verse" (Müller 2008, 37). The misconception lies in the fact that iambic verse is indeed a poetic text, but the language used in it most closely resembles ordinary language (Müller 2008, 37). Consequently, the application of a strange term for an ordinary one is not necessarily bound to the realm of poetic language but can also happen in the realm of the everyday. Aristotle himself fostered this misconception in that he said metaphor is "the token of genius" (Aristotle 1932, 1459a) and therefore assigned the capacity to form a metaphor to a few people who were considered (linguistic) genius which, at the time, were primarily artists (e.g. poets), philosophers, and perhaps politicians. This makes metaphor appear as always something extraordinary which nourishes an understanding of metaphor as the result of an artistic capacity which "cannot be learnt from anyone else" (Aristotle 1926 book 3, chapter 2). Later, we will see that metaphor would come to be described as poetic aspects of everyday language instead of being considered a normal aspect of poetic language.

Furthermore, according to Aristotle, the application of metaphor requires an "eye for resemblances" (1932, 1459a). One needs to be able to recognize an analogy between two unrelated terms. The analogy aspect is best demonstrated with Aristotle's formula "when B is to A as D is to C, then instead of B the poet will say D and B instead of D" (1932, 1457b). In Aristotle's example for a metaphor – "the evening of life" – evening (D) is to day (C) what old age (B) is to life (A). The analogy between (D) and (B) is determined by their similar proportions (Ricœur 2003a, 21). In this sense, the ideas of strangeness and analogy converge, in that metaphor is not only a matter of similarity as it is sometimes claimed, but also a matter

of dissimilarity – which is implied in Aristotle's "strange term". Apart from analogy, Aristotle's idea of metaphor acknowledges three more types of transference (from genus to species, from species to genus, from species to species). His definition, however, is problematic, in that it does not distinguish between metaphor and other tropes, such as, for instance metonymy, synecdoche and/or irony. However, metonymy (genus to species) and synecdoche (species to genus) are also contained by Aristotle's definition. As such, all four forms of transference would nowadays count as figures of speech in general (Hills 2011). Contemporary critics would say that only the last mode, transference by analogy, would be counted as a metaphor nowadays (Schmitz-Emans 2012). Some argue that even the third mode, transference from species to species, can be considered a metaphor if one agrees that Aristotle's view on metaphor is a comparison theory (Eggs in Rolf 2005, 28). Hereof consists the source of a common problem, namely the distinction between a broad notion of metaphor and a narrow one – as mentioned, for example, by the semiotician Winfried Nöth (1995a, 128). The narrow notion of metaphor signifies metaphor as a particular figure of speech and the broad notion instead denotes all figures of speech as metaphors.[18]

The idea of transference is a physical metaphor in itself. This is most clearly visible if we trace the noun back to the literal meaning of the verb "transfer" (OED Online 2013b).[19] Literally, it means "to convey or take from one place, person, etc. to another; to transmit, transport; to give or hand over from one to another" (OED Online 2013b). Metaphorically, this implies that, in the case of metaphor, characteristics from one thing are transferred to another thing. In other words, one thing is understood in the terms of another thing. When Aristotle describes "Achilles as a lion", he carries over the element of courage which is usually attributed to a lion onto the person Achilles. Yet, it is questionable if this transference is only possible due to a preexisting analogy between the lion and Achilles, as Aristotle claims, or if the analogy is only produced by claiming that Achilles is as brave as a lion. The philosopher Max Black, for instance, argues for the second case, as we will see in the discussion on the interaction view on metaphor.

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[18] The problem of a missing or unclear distinction between a narrow and a broad understanding of metaphor has also been addressed by Charles Forceville (1996, 64–65).

[19] I chose the verb "transfer" over the nouns "transference" and "transfer" since, in the case of the nouns, the *Oxford English Dictionary* (OED.com) describes their metaphorical meaning already as their literal meaning.

Altogether, the ideas of strangeness, analogy, and transference converge in the idea of substitution. Aristotle speaks of metaphor as substitution, in that, in the case of a metaphor, an ordinary expression (old age) becomes substituted by something non-ordinary (the evening). This substitution implies the transference of meaning from one noun (the evening of a day) to another (the evening of life) and the substitution of an originally literal meaning by a figurative meaning (from old age to evening of life). Finally, Aristotle assumes that the metaphorical expression can only substitute the literal expression due to an existing analogy between the two. Critics, however, say that Aristotle should rather be seen as a representative of the comparison view of metaphor, or, more precisely, the analogy theory of metaphor (Black 1993, 77–84) as I will show in the next section.

2.2 Comparison view of metaphor

An emphasis on the aspect of analogy as a main characteristic of metaphor has triggered what Max Black termed the comparison view of metaphor (Black 1954, 283). This view is closely related to the substitution view, such that some authors describe the relationship between the two views as "complementary" (Nöth 1995a, 129). Others describe the comparison view as a "special case of a 'substitution view'" (Black 1954, 283; see also Kurz 2004, 8).

The comparison view of metaphor is in place when authors argue "that a metaphor consists in the *presentation* of the underlying analogy or similarity" (Black 1954, 283 italics in original). This definition implies not only that the literal and the metaphoric expression share a similarity in a metaphor but also that the metaphor's function is to present this very similarity. For instance, calling a football player a soldier implies a similarity between both things or between both conceptual domains (football and war). This similarity is presented by the metaphor. The idea of similarity implies that the metaphorical expression can be replaced by a "literal translation" without "loss of *cognitive* content" (Black 1954, 293 italics in original).

Additionally, the comparison view considers metaphor as very close to another figure of speech – the simile. Instead of the metaphor "this player *is* a soldier" one could also say "this player *is like* a soldier". Proponents of this view on metaphor also name metaphor an "elliptical comparison" (Kurz 2004, 8) or a "condensed or elliptical simile" (Black 1954, 283).

Taking the comparison implied in metaphor as indirect, as opposed to the direct comparison provided by a simile, Aristotle says in his *Rhetoric*:

> "The simile also is a metaphor; for there is very little difference. When the poet says of Achilles, 'he rushed on like a lion,' it is a simile; if he says, 'a lion, he rushed on,' it is a metaphor" (Aristotle 1926, book 3, chapter 4).

However, as already indicated, Aristotle did not distinguish between different figures of speech but used to notion of metaphor to address all figures of speech. In the given quotation, he uses the term "metaphor" as genus as well as species. In the first sentence, the simile is made a species of the genus called "metaphor". In the second sentence, where Aristotle distinguishes metaphor from simile, he compares both on the level of the species. According to present-day standards, Aristotle would actually have used "figure of speech" or "trope" instead of "metaphor" as the name of the genus. Thus, he would have considered "simile" as well as "metaphor" a species of "figure of speech", thereby taking a broadly accepted position. Because of this misunderstanding the comparison view is sometimes traced back to Aristotle. For a discussion on why Aristotle is not a representative of the comparison theory, see Rolf (2005, 21–34).

For Black, both the substitution view and the comparison view treat metaphors as mere decoration or ornament for other equally suitable literal expressions, which could be substituted for the metaphor without any loss of cognitive content (Black 1954, 293). Both views endorse, thus, what Black calls unemphatic metaphors. Those are metaphors which could have been formulated differently without any loss of meaning or expression. Emphatic metaphors are those whose expressions cannot be varied without a significant loss of their specific meaning and expression.

Moreover, Adrian Snodgrass and Richard Coyne list a number of interesting criticisms or literal "flaws" regarding the comparison view (Snodgrass and Coyne 1992). The comparison view of metaphor assumes that the shared characteristics between the two things being compared in a metaphor are preexisting (Snodgrass and Coyne 1992, 65). This, however, implies that a metaphor is only possible if both associated things do have pre-existing similarities, and that the task of a metaphor is simply to present this similarity (see above). However, this view ignores the fact that some particularly creative metaphors make it possible

in the first place to see two things as similar although they are actually not, and thereby "evoke new ways of seeing things" (Snodgrass and Coyne 1992, 65).

In other words, the comparison in these cases can only happen in retrospect after a creative metaphor has been uttered. The interesting element then is not in what way the two related things are always already similar, but rather how they become similar through metaphor. In this regard, one can assume that many conventionalized metaphors are more likely to be understood as being based on similarities between the two related things due to this acknowledged convention. Snodgrass and Coyne criticize the comparison view of metaphor further, in that "if metaphor was simply a matter of discerning similarities and differences, the two terms would be interchangeable" (Snodgrass and Coyne 1992, 65). Clearly, most words in languages have particular meanings and that can be considered as the reason why even seemingly similar terms exist in parallel. As such they cannot be interchangeable by definition, but always carry some fine difference in individual meaning which could then make a metaphor interesting. In this regard, I doubt that most terms are fully interchangeable except for particular regional idioms which have different names for exactly the same thing.

As such, Snodgrass and Coyne argue that particularly creative metaphor is understood as being about the emergence of new meaning. Therefore metaphor "escapes confines of definition and specificity – comparison of two terms not possible in practice – because shared characteristics cannot be specified" (Snodgrass and Coyne 1992, 65). This is furthermore supported by their final criticism of the comparison view, which states that:

> "…any assessment of the similarity of the terms of a metaphor comes after the event, and derives from a post-operative analysis. In everyday situations we do not come to an understanding of the meaning of a metaphor by a retrospective comparison of the terms, but understand it immediately as we encounter it and before any such analysis can take place" (Snodgrass and Coyne 1992, 65).

In the form of a simile and from a pragmatic perspective, they add that understanding a metaphor in the moment of utterance is like understanding a joke: "you either 'get' a metaphor or you don't" (Snodgrass and Coyne 1992, 65). Black is of a similar opinion, arguing that metaphor neither substitutes "formal comparison[s]" nor other "literal statement[s]" – instead, it has very peculiar qualities and accomplishments (Black 1954, 284). He further suggests that it is more fruitful to consider metaphor as creating similarity instead of

presenting some "antecedently existing" similarity (Black 1954, 284–285). This statement marks Black's transition to his own position in metaphor theory, which Ivor Armstrong Richards and Black himself brought into existence – the interaction view of metaphor (Black 1954, 285). I will now make the same step and proceed to the interaction view on metaphor.

2.3 Interaction view of metaphor

Max Black himself offers the interaction view of metaphor, thereby reacting critically to the substitution and comparison views, in his infamous essay "Metaphor" (1954). The foundation for the interaction view, according to Black, had been laid by the philosopher Ivor Armstrong Richards (2001 [1936]), whose simple definition says:

> "…when we use a metaphor we have two thoughts of different things active together and supported by a single word, or phrase, whose meaning is a resultant of their interaction" (Richards 2001, 62).

Both the substitution view and the comparison view (if seen as a subset of the substitution view) propagate metaphor implicitly as a consecutive phenomenon. In the substitution view, one idea becomes substituted by another based on an antecedently existing similarity. As was noted in the previous section, Coyne and Snodgrass criticized the comparison view for its presumption of a retrospective comparative analysis of the two related thoughts, when, instead, the understanding of a metaphor has to be taken as an ad-hoc phenomenon. In other words, a metaphor is understood as it occurs, and is, as such, a phenomenon of simultaneity which is also expressed by Richards saying that two thoughts are "active together." There is something true to both perspectives. A very creative and novel metaphor which is unexpected will perhaps not be understood ad-hoc. Perhaps not the meaning but the presence of a creative metaphor as such will be understood ad-hoc, and can then trigger a thought process which might allow the disentangling of the meaning of this metaphor. On the other hand, it is certainly true for conventional metaphors that they are understood ad-hoc, because one is used to them and to certain situations where they occur. As such, it is clear that "to shoot" in football means something other than "to shoot" in an armed conflict. Yet, in both cases, the meaning of these notions is not in question and immediately understood. Following the

interaction view, on the other hand, would seem to favor an understanding of metaphor based on the simultaneity of the two related meanings.

Yet, the interaction view if based on Richards promotes the simultaneity of "two thoughts of different things [are] active together" (Richards 2001, 62). For example, when I say, "I have to digest your decision", this does not mean that I am substituting the seemingly literal expression. "I have to understand and evaluate what your decision means to me" for reasons of decoration of speech. It also does not primarily try to make the receiver consciously compare the process of digestion with the process of understanding. According to the interaction view, the important aspect in understanding this metaphor is that both separate thoughts are simultaneously active. We can make sense of this metaphor as we identify the two different thoughts and connect them in a meaningful way. Obviously, we identify the digestion process as the one thought of a thing A as this is explicitly uttered. The other thought of a thing B we can derive from the context. This sentence is most likely uttered in a situation in which person 1 is in some way affected by a decision made by another person 2. Person 1 has to understand and evaluate how the consequences of this decision affect her. It depends on this evaluation if the decision will be accepted, tolerated, criticized etc. The other thought of a thing B can thus be identified as the process of understanding and evaluating a decision. However, we think of this process in terms of a digestion process. To understand the meaning of the metaphor is therefore to understand the interplay of A and B.

On the other hand, my own criticism seems to hold true here as well. It is certainly true that the understanding of A in terms of B must have happened at some point. But, as I just suggested, to "digest a decision" is such a conventional expression that one cannot assume that this interplay between the two terms must be understood in the very moment in which one hears this expression for the fiftieth time. As such, the interaction view on metaphor also seems to focus more on creative or novel metaphors.

Nevertheless, according to the interaction view, the interaction consists of the interplay between the two different but simultaneously active thoughts of things. Therefore, in metaphor we do not deal with a situation of substitution, which implies that only the seemingly metaphoric notion is active in understanding. Instead, understanding the meaning of a metaphor has to be thought of as two different thoughts which correspond in a specific

way. Black sums up a revised version of his own idea of the interaction view, which he originally developed in his first essay "Metaphor" in 1954, in five features:

1. *Two distinct subjects (primary and secondary) and duality of reference (contrast between focus and frame)*: Similarly to Richards, "a metaphorical statement" for Black consists of two subjects of which one is primary and the other is secondary. The primary subject is characterized through the secondary subject. In my example, the process of understanding and evaluating a decision (primary subject) is seen through the process of digestion (secondary subject). The metaphorical sentence uttered is characterized by a "duality of reference [which is] marked by the contrast between the metaphorical statement's focus (the word or words used non-literally) and the surrounding literal frame" (Black 1993, 27). That is, the sentence "I have to [understand and evaluate] you decision" is considered the literal frame of the metaphorical utterance, and the verb "to digest" is its metaphorical focus. Since both things (understanding/evaluating vs. digestion) are considered significantly distinct, they are contrasting with each other.

2. *The secondary subject is more a system than a single thing*: For Black, the secondary subject is not only a single thing. Instead, it should be seen as a whole system. Thus, in our example, the secondary subject does not only consist of the single phenomenon of digestion, but more of a whole system of implications (Black calls it the "implicative complex" or "implication complex" (1993, 27, 28)) that the notion of digestion carries. With regard to our example, "digestion" is not of interest as a single thing but as a whole system of implications and characteristics. As such, when speaking of digestion, this implies ideas such as the digestive system organs, the digestion processes, the functions of digestion, and so on.

3. *Projection of implications of secondary subject on primary subject*: In metaphor, those implications of the secondary subject are projected onto the primary subject which are associable with it. Thus, those implications of the digestion process are projected on the process of understanding/evaluating which can be associated with it. So, for instance, the conveyance of a decision can be understood as the ingestion of food. The potential effect of the decision can be seen as being either easy or difficult to digest. In the latter case, this can give the receiver of the decision a "stomachache", and so on.

4. *Selection, emphasis, suppression, organization of features of primary subject through secondary subject*: Depending on the individual implicative complex of the secondary subject, it selects those aspects of the primary subject which can be associated with its implications. Simultaneously, these aspects become emphasized, whereas incompatible aspects of the primary subject become suppressed. In this regard, the projection of the secondary subject onto the primary one organizes or structures the way in which the primary subject can be seen. Black himself used the metaphor "filter" to describe the functioning of a metaphor (Black 1954, 286). Like a filter, it emphasizes some aspects and suppresses others, and thereby selects and organizes aspects of the primary subject through the filter of the secondary subject.

5. *Three ways of interaction of the two subjects*. Finally, according to Black, there are three ways in which the two subjects interact. Firstly, the "presence of primary subject" motivates the hearer to select some implications of the secondary subject, which, secondly, makes her organize an implication complex which fits the primary subject and which, thirdly, also reorganizes the secondary subject accordingly. Obviously the interaction is ensured through the individuals involved, since it takes place "in the minds of the speaker and hearer" (Black 1993, 28). This means that being confronted with the sentence, "I have to digest your decision" supposedly makes me (the hearer) select some aspects and implications of the digestion process (secondary object) and use these to organize my understanding of the process of understanding and evaluating. This, in turn, also organizes my understanding of the digestion process in the light of decision-making.

By the end of his initial take on the interaction view of metaphor, Black suggests that particularly "trivial cases" of metaphor can seem to be better explained with the substitution or comparison view (Black 1954, 292). Yet, as my criticism has shown, these trivial cases are most likely conventional or so-called dead metaphors. This observation makes Black suggest not to dismiss one of the presented views but instead to "classify[…] metaphors as instances of substitution, comparison, or interaction" (Black 1954, 292). As I have said, I believe the differences suggested by these views rely on the degree of novelty of metaphors. Thus, one can assume that the interaction view is more important for novel metaphors, whereas the comparison and substitution views account for more conventional metaphors.

2.3.1 Metaphor as a triadic structure

An important difference between the substitution view, the comparison view, and the interaction view is that the former two can be understood as promoting a dual structure of metaphor, whereas the latter promotes a triadic structure. The substitution view only acknowledges the element which substitutes and the element which is substituted. The comparison view only acknowledges the element which is compared to the other element. In the interaction view, on the other hand, the interaction between the two associated thoughts gets into the game as a third element.

The important parts of the metaphor are, without doubt, two. Depending on the author, these two thoughts or things are, among others, called "tenor" and "vehicle" (Richards 2001, 64), "focus" and "frame" (Black 1993, 27), or "source domain" and "target domain" (Lakoff and Johnson 2003, 253). However, the interaction view seems to offer most apparently the opportunity to understand metaphor as a tripartite structure. In Richard's definition, not only are "two thoughts of different things active together", but they are also supported by a third element, "a single word, or phrase, whose meaning is a resultant of their interaction" (Richards 2001, 62). Therefore, one can say, a metaphor consists of the unity of the difference of two thoughts. In this respect, the two individually identified thoughts are obviously the two parts of a metaphor, and the specific meaning resulting from their interaction. Consequently, it is the in-between or the interaction which serves as a third in the structure of metaphor, as it is the specific interaction which finally determines the meaning of this specific metaphor.[20] It makes a difference if I think of the process of understanding in terms of a digestion or, for instance, in terms of machine processing. Some might object that there is only a slight difference. However, for the meaning of the metaphor, it is important whether I conceptualize the process of understanding as an organic or a mechanic process.

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[20] In a similar way, one can describe the structure of the Saussurean sign as triadic, though it is often considered as a dual structure, which serves as an argument to delimit it from the originally triadic structure of the Peircean sign. However, considering Saussure's sign not only as consisting of a concept and a sound pattern but also of their specific unity, which Saussure himself calls sign (Saussure 1986, 65–67), we can speak of a triadic sign structure as well.

The triadic structure of metaphor was first pointed out by the German linguist Cornelia Müller (Müller 2008, 26–32). She argues "that metaphors rest upon some kind of awareness of a duality of meaning or reference that is based on a transfer or mapping between concepts or domains" (Müller 2008, 26). Müller mentions that this assumption is derivable from the theories of Richards, Black and Lakoff and Johnson, just to mention the most important ones. Noting that the "duality of meaning" is still an important aspect of metaphor, she nonetheless criticizes dualistic views for their tendency to "reduce the structure of metaphor to a transfer or mapping between two entities [...] without systematically including the role of the mediating or connecting entity or process" (Müller 2008, 26). Müller identifies the "process of seeing-in-terms-of" that she derives from Ludwig Wittgenstein's famous notion of "seeing-as" (Wittgenstein 1958, 194) as the necessary and peculiar third element for a triadic model of metaphor. She acknowledges (Müller 2008, 26) that even other metaphor theorists, like Lakoff and Johnson, have applied a similar notion in their infamous definition of metaphor (2003, 5).[21] This third element of a metaphor can either be a "verbal expression" triggering the process of seeing-in-terms-of, or the triggering can be the result of a convention, which is the case with conventionalized metaphors (Müller 2008, 26). The advantage of the triadic view as opposed to the dualistic view is, according to Müller, that it incorporates the linguistic sign as a mediator and connector between two thoughts or other "nonlinguistic entities" (Müller 2008, 28). This view she derives from the German metaphor researcher Hans-Heinrich Lieb's approach to linguistic metaphor, which she sums up as a process in which "the linguistic sign establishes a relation of uncommon use between the two nonlinguistic entities" (Müller 2008, 27). These non-linguistic entities can be "specified either as 'concepts', or as 'meanings', or as 'things', or the like" (Lieb in Müller 2008, 27). It was also Lieb who had demonstrated the existence of a triadic structure already in historical theories of metaphor like Aristotle's *Poetics* (Müller 2008, 28). However, Müller also refers to current metaphor theories such as Lakoff and Johnson (2003) who implicitly imply such a structure. Instead of a word, they suggest "experiencing and understanding" as mediating devices between two conceptual domains (Lakoff and Johnson quoted in Müller 2008, 28). One could argue that this process of

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[21] "*The essence of metaphor is understanding and experiencing one kind of thing in terms of another*" (Lakoff and Johnson 2003 5, italics in original). Though, the philosopher Kenneth Burke defines metaphor as "a device for seeing something *in terms of* something else" (1941, 421, italics in original).

experiencing and understanding could just as well be triggered by a word or a chain of signs of different modalities.

2.3.2 Metaphor as paradox

Closely related to a view on metaphor as a triadic structure is the understanding of metaphor as a paradox. The book *Metaphertheorien* by Eckard Rolf (2005) guided my attention to Paul Ricœur's metaphor theory. Rolf describes it as the "Paradoxietheorie der Metapher" (theory of metaphor as a paradox). Therefore, I will describe Ricœur's theory of metaphor through Rolf's view.

Similar to the principle of the unity of the difference as promoted, for instance, by Luhmann's systems theory (1995) and Bateson's play theory (2000), metaphor is here literally described by Rolf as "die Einheit der Differenz 'ist/ist nicht'" ("The unity of the difference 'is/is not'") (Rolf 2005, 195). In metaphor theory, this is also known as the difference between a literal falsity and a metaphorical truth. Ricœur describes metaphor in his own words as a paradox:

> "The paradox consists in the fact there there [sic] is no other way to do justice to the notion of metaphorical truth than to include the critical incision of the (literal) 'is not' within the ontological vehemence of the (metaphorical) 'is'" (Ricœur 2003a, 302).

For a better understanding of this, let us have a look at the following example phrase: "My friend is an elephant". From the point of view of literal truth, this expression is obviously false if the friend I refer to is a human being and, as such, clearly not an elephant. However, it is metaphorically true if I would like to express the fact that my friend is very clumsy because she ignorantly sat on my painstakingly self-made tin soldiers. The clumsiness is part of an elephant's implication complex (see again Black 1954). No matter if I call the one aspect true and the other false, or both as two diametrically different kinds of truths, in each case metaphor turns out to be a unity of the difference. In each case there is a paradox at play. Black's metaphor theory (1954) is also known for emphasizing the contextual aspect of metaphor. In this regard metaphor consists of an unusual contextualization of a certain meaning. As such, the elephant is put in an unusual context: a friendship between two human beings. Consequently, this contextualization can be understood as paradox as well. The thought of metaphor as a paradox is also supported by Carl R. Hausman, who does an

outstanding effort in discussing the interaction view of metaphor. Referring to Ricœur, he holds that, "a metaphor does not say, 'See this as that' but, rather, 'See that this is what it is not'" (Hausman 1989, 72).

Müller's (2008) dynamic view on metaphor names, among others, cognitive activity and a triadic meaning structure as two characteristics of metaphor. Speaking about the cognitive character of metaphors, she mentions Wittgenstein's notion of "seeing-as." Müller writes:

> "In this sense, seeing-as is interpretation, is constructing a meaningful object. This cognitive process is metaphoric when a duality of meaning is a core part of the process. Duality of meaning refers to the simultaneous activation of two aspects" (Müller 2008, 24).

Müller uses the famous duck-rabbit by Joseph Jastrow, which was already used by Wittgenstein as an exemplification of his notion of "seeing-as" to illustrate her point, and continues, "[t]hus, the duck-rabbit head would turn into a metaphor in which the duck would be taken for the rabbit but not cease to be the duck" (Müller 2008, 24). In this regard, the duck-rabbit also exemplifies the essential mechanism of metaphor. For Müller, the idea of seeing-as is the fundamental mechanism of metaphor – as literally mentioned in the definition offered by Lakoff and Johnson (2003, 5).

Yet, the most paradoxical characteristic of metaphor is that it is usually explained through other metaphors (see e.g. Ricœur 2003a, 278). As such, for instance, Nelson Goodman famously explains metaphor as "an affair between a predicate with a past and an object that yields while protesting" (Goodman 1976, 69; also in Ricœur 2003a, 231), as "teaching an old word new tricks" (Goodman 1976, 69; also in Ricœur 2003a, 231) or as "a happy and revitalizing, even if bigamous, second marriage" (Goodman 1976, 73; also in Ricœur 2003a, 278). Black calls the secondary subject of a metaphor a "filter" through which the primary subject is seen (Black 1993, 19). In addition, he calls the primary subject the "focus" and the secondary subject the "frame" (Black 1993, 22). I have just given some examples, but there are many others to prove this point.

One can assume that the paradoxical element exhibited by instances of metaphor occurs particularly in cases of novel and unconventional metaphors, and therefore accounts for the often ascribed creative power of metaphor. This, together with the fact that metaphor itself

can only be described in terms of metaphor, reveals a possible relation between the concepts of metaphor and play, since metaphor has been described as the play of language (Roland Barthes quoted in Slethaug 1993). In Chapter 3 I will discuss the relation between concepts of metaphor, representation, and play based on their common capacity to exemplify a paradox.

2.4 Metaphor as a cognitive phenomenon

Now that I have mentioned Lakoff and Johnson quite often, it is about time to introduce their theory of metaphor. As I have already mentioned, the interesting part of Lakoff and Johnson's theory is their emphasis that metaphor is a matter of thought. As we could see in the interaction view, this has already been expressed by Richards, who said that, in metaphor, we have "two thoughts of different things active together" (Richards 2001, 62). Richards criticizes the primacy of language in metaphor theory, promoted particularly by traditional theories based on classical rhetoric. Instead, he suggests an inverted hierarchy in which it is first and foremost thought that is to be considered metaphoric, and language is rather the medium through which this metaphoricity of thought is expressed: "[t]*hought* is metaphoric, and proceeds by comparison, and the metaphors of language derive therefrom" (Richards 2001, 63, italics in original). Instead of "a shifting and displacement of words", as the substitution view suggests, metaphor is "a borrowing between and intercourse of *thoughts*, a transaction between contexts" (Richards 2001, 63, italics in original). Richards is clearly pointing at the possibility that language can serve as one possible mediator of metaphors. In other words, the quote contains the possibility that metaphors can also be mediated in other media, such as, perhaps, computer games. Taking Burke's definition of metaphor, which is about "*seeing* something in terms of something else" (Burke 1941, 421) one can assume that the notion of "seeing" here means understanding something as something else or thinking of something in terms of something else. In his other important article on metaphor, "More about metaphor" (originally published in 1977), Black entitles a section "thinking in metaphors" (Black 1993, 31), and writes:

> "My interest in this paper is particularly directed toward the 'cognitive aspects' of
> certain metaphors, whether in science, philosophy, theology, or ordinary life, and their

power to present in a distinctive and irreplaceable way, insight into 'how things are'" (Black 1993, 21).

According to the quote, Black is primarily interested in a subset of ("certain") metaphors and their "cognitive aspects". This subset consists of metaphors which are useful in different fields, such as science, philosophy and even ordinary life, to reveal a perspective on the being of things which can otherwise not be discovered. What Black refers to here is the fact that metaphors are cognitive instruments allowing for "insights" about "how things are" (Black 1993, 21). For Black, metaphors are thus not so much the result of a cognitive activity, as they are in Richards' approach. However, they have an epistemic function in ordinary life, as well as in science. As opposed to Richards, whose focus is on the ontology of metaphors, Black here regards the epistemic function of metaphors. In line with this observation, Müller distinguishes for her discussion of metaphor theories, two important perspectives: "the epistemic role and the nature of metaphor" (Müller, 2008, 41).[1]

Even if Black could not be considered a forerunner of the cognitive linguistic view on metaphor, Black's insights at least demonstrate a certain zeitgeist in the thought about metaphor which eventually culminated in the cognitive linguistic view on metaphor. Black writes:

> "to say […] that, 'Life *is* the receipt and transmission of information,' is at least to be thinking of life *as* the passage of information (but not that, merely). Similarly for all metaphorical utterances that are asserted and not merely entertained. It might, therefore, be a large step forward in becoming clearer about what might be called *metaphorical thought* (a neglected topic of major importance) if we had a better grasp on what it is to think of something (A) *as* something else (B). What, then, is it to think of A as B?" (Black 1993, 31, italics in original).

Richards, Burke, and Black are only a few representative writers working in English who demonstrate that Lakoff and Johnson's take on metaphor did not pop up out of the blue. Despite being central figures in metaphor theory, none of these thinkers is acknowledged in Lakoff and Johnson's main works on cognitive linguistic metaphor theory, *Metaphors We Live By* (2003 [1980]) and *Philosophy in the Flesh* (Lakoff and Johnson 1999). In all fairness, they are mentioned in works which are less known outside of cognitive linguistics and metaphor theory, such as Johnson's *The Body in the Mind* (1987). Yet, the just-mentioned books are

Lakoff and Johnson's most popular writings, and those which are most often referred to in approaches to the theory of metaphor from other fields, such as game studies. Their general popularity and their popularity in game studies as well as the systematicity of their account shall be reason enough to have a closer look at this theory.

2.4.1 Cognitive linguistic metaphor theory

In 1980, George Lakoff and Mark Johnson wrote what is currently the most popular theory of metaphor, published in their book *Metaphors We Live By* (2003 [1980]) and followed up by several other works, such as *Women, Fire and Dangerous Things* (Lakoff 1987), *The Body in the Mind* (Johnson 1987), and *Philosophy in the Flesh* (Lakoff and Johnson 1999). With their approach, known as the cognitive linguistic view on metaphor (Kövecses 2010, x), they revolutionized the understanding of the concept of metaphor and turned essential implications related with the notion of metaphor upside down.

The most important thesis of Lakoff and Johnson's work is that metaphor is not a phenomenon solely reserved to very creative and artistic linguistic expressions. On the contrary, metaphor is considered a phenomenon of "everyday life, not just in language but thought and action" (Lakoff and Johnson 2003, 3) whose use is very often not subject to conscious choice but rather unavoidable. Already, Friedrich Nietzsche made the claim that everyday language consists of:

> "a mobile army of metaphors, metonyms, and anthropomorphisms – in short, a sum of human relations which have been enhanced, transposed, and embellished poetically and rhetorically, and which after long use seem firm, canonical, and obligatory to a people: truths are illusions about which one has forgotten that this is what they are; metaphors which are worn out and without sensuous power; coins which have lost their pictures and now matter only as metal, no longer as coins" (Nietzsche 1873).

According to Lakoff and Johnson, "our ordinary conceptual system, in terms of which we both think and act, is fundamentally metaphoric in nature" (Lakoff and Johnson 2003, 3). For Lakoff and Johnson, "*the essence of metaphor is understanding and experiencing one kind of thing in terms of another*" (2003, 5, italics in original).

Since thinking is, according to Lakoff and Johnson, of an essentially metaphoric nature, we constantly understand one kind of thing in terms of another. The core of Lakoff and Johnson's theory is the so-called metaphoric concept or conceptual metaphor. Lakoff and Johnson's best example for a conceptual metaphor is ARGUMENT IS WAR.[22] The claim behind this is that, when we argue with somebody, we usually do this in terms of war or struggle. To Lakoff and Johnson, the metaphorical thought "is *grounded in* [everyday] *experience*" (Lakoff 1993, 240; see also Lakoff and Johnson 1999, 43). Examples from everyday language serve Lakoff and Johnson as proof for their thesis. When we argue we could describe the situation with some of the following expressions:

– "I *attack* your standpoint"[23]

– "You *defend* your position"

– "Your criticism *hits* the heart of my argument" etc. (for more examples see Lakoff and Johnson 2003, 4).

In this example, "argument" is the one kind of thing which is understood in terms of the other kind of thing, "war". It is important to see the hierarchy between metaphorical expressions and the concept metaphor. The concept metaphor is of a higher order and it is supported by metaphorical expressions. Thus, the linguistic expressions are empirical, whereas the concept is, as its name indicates, conceptual. Since one concept structures the other, they are also called structural metaphors (Lakoff and Johnson 2003, 15).

As one can further see from this example, conceptual metaphors are no singularities. On the contrary, conceptual metaphors are systematically structured by their source and target domains. Therefore, the authors also use the terms target domain (ARGUMENT) and source domain (WAR) to name the different related things according to their role within metaphor (Lakoff 1993, 207). This structuring has different effects. Similar to Black's features of metaphor, which, according to him, selects, emphasizes, suppresses and organizes (see above and Black 1993, 27, 28) Lakoff and Johnson's concept of metaphor is characterized by highlighting and hiding. This means that the source domain highlights specific characteristics

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[22] When referring to conceptual metaphors and the source and target domains conceptual metaphors consist of, I will stick to a convention from cognitive linguistics and mark them typographically by writing them in small capitals.

[23] In metaphoric linguistic expressions the metaphoric element is marked through italic letters.

of the target domain and hides others. Thus, in the "argument is war" metaphor, only those aspects are highlighted which resonate with the semantic domain of argument. Other characteristics of arguing which do not resonate with the notion of war are obviously hidden. As such, one can roughly say that the antagonistic elements of the argument domain should resonate particularly well with the war domain. However, the cooperative aspects of arguing are hidden by this metaphor (see Lakoff and Johnson 2003, 10).

In line with highlighting and hiding stands the "partial nature of metaphorical structuring" (Lakoff and Johnson 2003, 52–56). This implies the fact that some aspects of the source domain are not projected onto the target domain, and are therefore not "used" in certain conventional metaphors (Lakoff and Johnson 2003, 54). Lakoff and Johnson use "the foot of a mountain" as an example, referring to the fact that only the foot is used in the concept metaphor "a mountain is a person" (Lakoff and Johnson 2003, 54). We rarely speak of the finger, the chest, the "head",or the "shoulders" of a mountain in everyday conversation since these do not belong to common conventional metaphors[24] (Lakoff and Johnson 2003, 55). However, the unused elements of a concept metaphor can be used in "novel metaphorical expressions" (Lakoff and Johnson 2003, 55–56). It is hard to imagine which situation might justify speaking of the ear of a mountain or its nose; however, if this happened, this would be a case in which generally unused elements of a conventional source domain would be applied in a novel metaphor.

Apart from defining the structural metaphor, Lakoff and Johnson also named two other general types of metaphor, terming these orientational metaphors, and ontological metaphors. Orientational metaphors make use of terms of "spatial orientation" such as "up-down, in-out, front-back, on-off" etc. and "organize[...] whole systems of concepts with respect to each other" (Lakoff and Johnson 2003, 14) instead of single concepts. Its existence is located "in our physical and cultural experience" (Lakoff and Johnson 2003, 14). Examples include the metaphor HAPPY IS UP and SAD IS DOWN, which is supported by linguistic expressions such as "I'm feeling *up*," "My spirits *rose*," "I'm feeling *down*" (Lakoff and Johnson 2003, 15). These metaphors are thought of as being motivated by the fact that a "drooping posture typically goes along with sadness and depression" and an upright posture is correlated with "a positive

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[24] Against the distinction between literal and metaphorical language Lakoff and Johnson call conventional metaphors also "literal metaphors" and thereby make use of the implied irony (Lakoff and Johnson 2003, 54).

emotional state" (Lakoff and Johnson 2003, 16). Other examples for orientational metaphors are HEALTH AND LIFE ARE UP, SICKNESS AND DEATH ARE DOWN, MORE IS UP, and LESS IS DOWN; the respective linguistic expressions can be looked up in the book (Lakoff and Johnson 2003, 15).

The other kind of metaphor Lakoff and Johnson identify is the ontological metaphor. Ontological metaphors allow us to understand abstract experiences in terms of some more concrete "objects and substances" (Lakoff and Johnson 2003, 26). They make it possible to address abstract things and to delimit things which are not delimitable and make them graspable. For instance, the metaphorical expressions "it will take *a lot of patience* to finish this book," or "there *is so much hatred* in the world" (Lakoff and Johnson 2003, 27) allow us to quantify hate and patience, turning them from abstract feelings into quantifiable objects. Another example is the THE MIND IS A MACHINE metaphor. This makes it possible to think of the MIND in terms of a MACHINE, and is expressed in phrases such as "I'm *a little rusty* today," or,"My mind isn't *operating* today" (Lakoff and Johnson 2003, 27). Lakoff and Johnson say:

> "The MACHINE metaphor gives us a conception of the mind as having an on-off state, a level of efficiency, a productive capacity, an internal mechanism, a source of energy, and an operating condition." (Lakoff and Johnson 2003, 28).

Clearly, the source domain and the target domain in Lakoff and Johnsons are similar to Black's implication complex, which, as described above, already suggested the systematic structuring of metaphor much earlier than Lakoff and Johnson.

Container metaphors are a hybrid of orientational and ontological metaphors. They are again attributed to our bodily being in the world (Lakoff and Johnson 2003, 29). Through such metaphors, we can understand many things as a CONTAINER, thereby making abstract things more concrete (see ontological metaphors) and using an in-out orientation (see orientational metaphors). As such, we can "be *in* a game" or "*in* a mood"; however, when we fail to abide by the rules, we might "be thrown *out* of the game."

In the afterword of the 2003 edition of their book, Lakoff and Johnson consider these three types of metaphors as an "artificial division" (Lakoff and Johnson 2003, 264). They come to the conclusion that metaphors are fundamentally structural and ontological – as such, they always structure one domain by means of another, and they always "create target domain

entities" (Lakoff and Johnson 2003, 264). Nevertheless, these examples help us to understand that metaphor is a ubiquitous element of our everyday understanding of the world.

Therefore, Lakoff and Johnson believe that metaphor is strongly grounded in our everyday experience (2003, 29–21) which is shaped by our bodily existence in the world (Johnson 1987) and by "cultural presuppositions" (Lakoff and Johnson 2003, 57). That is also why Lakoff and Johnson's approach can be considered as "less context-specific" (Ensslin 2012, 74). Concept metaphors structure our thinking and experience more fundamentally so that it is more likely that we experience and understand a specific context in the light of these metaphors. In other words, it is not the context that influences our thinking, but our thinking that influences our experience of a context.

The popularity of cognitive linguistic metaphor research in the years since the 1980s has led to an enormous body of empirical research on the use of metaphor, and that is why, as I will show in the next section, Zoltán Kövecses can provide an overview of very common source and target domains in Western thought.

2.4.2 Common source domains and target domains

The cognitive linguistic perspective on metaphor has proven fruitful as it provides information about the most commonly used target and source domains and therefore allows a better insight into how human thinking and experiencing is metaphorically structured according to the cognitive linguistic paradigm on metaphor. Starting from the observation that, in everyday conventional metaphor, the source domain usually consists of "more concrete and more clearly delineated concepts," whereas the target domain is usually "fairly abstract and less-delineated" (Kövecses 2010, 17), the Hungarian cognitive linguist Zoltàn Kövecses was interested in finding out which are the most often used source and target domains of metaphor. He investigated resources such as *The Master Metaphor List* (Lakoff, Espenson, and Schwartz 1991) and a variety of metaphor dictionaries such as the *Metaphors Dictionary* (Sommer and Weiss 1996) and the *Dictionary of Everyday English Metaphors*, as well as studies from the paradigm of contemporary cognitive metaphor research – thereby collecting the most common source and target domains of contemporary English (Kövecses 2010, 17).

In all fairness, one has to add that Kövecses flags an awareness of the tentative character of his listing and the need for better methods and more studies in this field (Kövecses 2010, 27).

The most common source domains which Kövecses presents are thus the HUMAN BODY, HEALTH and ILLNESS, ANIMALS, PLANTS, BUILDINGS and CONSTRUCTION, MACHINES and TOOLS, GAMES and SPORT, MONEY and ECONOMIC TRANSACTION (BUSINESS), COOKING and FOOD, HEAT and COLD, LIGHT and DARKNESS, FORCES, MOVEMENT and DIRECTION (see Kövecses 2010, 18–23). It is worthwhile to remember that metaphors are culturally dependent (see Lakoff and Johnson 2003, 4–5, 15, 22–29). As such, these findings are mostly valid for Western cultures, and, more specifically, for English-speaking cultures, as they are derived from studies and dictionaries in this cultural sphere. Therefore, one has to keep in mind that these findings are only generalizable to a certain degree. One can also assume that some source domains undergo historical change (Kövecses 2010, 27). It seems plausible that the machine became a more common source domain in the more mechanically-oriented age that followed the Industrial Revolution. Nowadays, with computers being ubiquitous on a global level, it is likely that computers are very common source domains, too, especially since they were originally mechanical machines themselves, only to nowadays be used to control machines. Thus, one can assume that machines and computers possibly share their place among the common source domains, given that computers emerged in the last century and grew more and more central – particularly in everyday Western lives, but also, on a global level, in many other cultures ever since. On the other hand, one can say that this list contains the very essential elements of the human condition or of being human. In other words, existential basics provide the most common source domains. In this light, the computer is nowadays an essential tool, and thus an essential element of being in the world (see Heidegger 2008). As such, it seems like the cognitive linguistic take on metaphor has a point when assuming that metaphors are derived from the everyday experience of being in the world.

As a result of this, one of the most often-used source domains is clearly the HUMAN BODY, according to Kövecses. Réka Benczes (born Hajdú), a student of Kövecses, is reported to have found out that more than one-sixth of all the idioms found in a collection of American metaphorical idioms (*Figurative Idioms* by George Nagy) are based on the body (Kövecses 2010, 18). Sample linguistic expressions might thus include "the *heart* of the problem" or "to *shoulder* a responsibility" (Kövecses 2010, 18). Kövecses concludes that this is caused by the

centrality of the everyday experience of one's own body. The "'embodiment of meaning'" can be considered the most important concept of the metaphor theory of cognitive linguistics (Kövecses 2010, 18). The centrality of the body, at least in Western human experience, also becomes obvious in the following source domains, as listed and briefly explained by Kövecses. Most of the examples are from Kövecses (2010, 18–23).

The experience of HEALTH and ILLNESS is obviously closely related to the experience of the body. From a phenomenological, Heideggerian perspective, one might even consider that one's own body becomes the object of one's experience when the whole body or parts of it are dysfunctional or function in an unusual way. Thus, on a normal day, I do not experience my body as dysfunctional, since it works fine. However, I can certainly feel my legs hurt when I did the first ten-kilometer run after a training break of several weeks. The same goes in the case of illness: when I have a heavy flu and suffer from a strong headache, rheumatic pains etc. Linguistic examples are "a *sick* mind" or "a *healthy* society" (Kövecses 2010, 19).

PLANTS and ANIMALS are similarly existentially important for human bodies, as they provide nourishment, and the farming of plants and animals was an essential aspect in the emergence of human civilization. However, they are also part of everyday life in a different form. As such, certain animals and plants have different symbolic functions in different cultures; moreover, different cultures feature different animals as pets or plants for everyday aesthetic reasons. Linguistic examples for animals as source domains are situation when somebody is called a "*tiger,*" a "*dog,*" a "*fox*" etc. (Kövecses 2010, 19). For the case of plants, we say, for instance "the markets are *flourishing,*" or "the *fruit* of her labor" (Kövecses 2010, 19).

The next source domain, BUILDINGS and CONSTRUCTION, is drawn from a similarly important concept for the human body – not only do buildings provide "shelter," they also function as places for "work" and "storage." An exemplary metaphorical expression is "she *constructed* a coherent argument" (Kövecses 2010, 19). Obviously, humans also use all kinds of MACHINES or TOOLS in their everyday life ("the *machine* of democracy"), they play GAMES and SPORTS ("to *toy* with an idea"), they are involved in ECONOMIC TRANSACTIONS ("*spend* your time wisely"), they cook FOOD ("what's your *recipe* of success?"), they experience HEAT and COLD (e.g. warm and cold food) ("an *icy* stare"), and their days are determined by cycles of LIGHT and DARKNESS due to the day and night shift but also due to changing weather conditions ("a *dark* mood") (Kövecses 2010, 21).

Humans also experience through their body all kinds of physical FORCES

> "…as operating on and affecting us in many ways. The forces take many shapes in the physical world: waves, wind, storm, fire, and agents pushing, pulling, driving, or sending another thing. These forces effect various changes in the thing acted on" (Kövecses 2010, 22).

These forces are expressed, for example, in metaphors such as, "You're *driving* me nuts," or "Don't *push* me" (Kövecses 2010, 22). Closely related to the domain of forces is the domain of movement and direction. Whereas the former can be considered as an environmental effect on the body, the latter can be seen as a bodily impact on the environment. In other words, both describe contrary vectors of impact. One can also say that, for instance, the force of wind might become particularly perceptible when moving against the wind or when being moved by the wind although standing still (Kövecses 2010, 22). As such both domains, FORCES and MOVEMENT/DIRECTION, seem to be complementary. Apart from that, movement is obviously a very "basic experience," too, as most humans usually move (e.g. walk, run, stroll, biking) and are moved (e.g. on public transport, in a car) while dealing with their daily routine. Looking at the sum of these source domains, Kövecses additionally remarks that, although this list of source domains is certainly not complete, it provides a basic model of an "extremely simplified world" in which humans live (Kövecses 2010, 23).

It is intuitively plausible to say that abstract domains are frequently conceptualized in terms of the concrete physical domains of everyday life. This model in turn provides the basis for the metaphorization of less concrete and more abstract target domains. Among the most common target domains, one finds abstract concepts which are conceptualized by means of rather concrete concepts. Among those in Kövecses' list are EMOTIONS ("She was deeply *moved*"), DESIRE ("I am *starved* for affection"), MORALITY ("He's a *shady* character"), THOUGHT ("He *searched* for the memory"), SOCIETY/NATION ("the *machinery* of democracy"), POLITICS ("the *fight* erupted over abortion"), ECONOMY ("the *growth* of the economy"), human RELATIONSHIPS ("they *built a strong* marriage"), COMMUNICATION ("You are *putting* too many ideas *into* a single sentence"), time ("time *goes by* fast"), LIFE and DEATH ("Grandpa is *gone"*), RELIGION (God is often conceptualized as "*Father*" or "*Shepherd*") (Kövecses 2010, 23–27). Although Kövecses expresses a lack of knowledge of how "the simplified world" maps onto the abstract target domains in detail (Kövecses 2010, 27), the metaphorical examples provided

for each target domain show a tendency for this simplified world to be used to conceptualize rather abstract concepts.

Since games are one of the major topics of this thesis, the source domain GAMES/SPORTS requires a little extra attention. Considering GAMES as a source domain, computer games researcher Jesper Juul makes the relevant observation that games are a common source domain in everyday language use: "activities that are occasionally metaphorically described as being 'games': the game of politics, the game of love, the game of getting tenure at universities" (Juul 2005, loc. 463–464).

Similarly, expressions such as "He *plays by the rules*," "We want an even *playing field*," or "He tried to *checkmate* her" (Kövecses 2010, 20) do not sound surprising or unfamiliar. Juul notes that the mentioned activities are "occasionally" described as games, although Kövecses' list suggests that many things should be more frequently conceptualized as games. Thus, the terms 'play' and 'games' should be rather ubiquitous in everyday language. Accepting that play is an element of games, Johan Huizinga's thesis that play is a ubiquitous cultural phenomenon (Huizinga 1998) supports Kövecses' assumption for games to be often used as source domains in everyday thinking. However, Lakoff and Johnson assume that metaphor reveals something about the cognitive structuring of experience, thinking, and acting, which implies that there have to exist distinctions between such things as games and other phenomena in order for the two to be comparable in the first place. This is emphasized by Huizinga's discussion of the notion of "battle-play" ("battle" = target domain, "play" = source domain) as metaphoric and not metaphoric (Huizinga 1998, 40), which shows that there is also a semantic and ontological question at stake. Huizinga here holds that one cannot speak of the notion of battle-play as a metaphor if both "battle" and "play" are considered the same. I will address this problem again in Chapter 3, in which I will investigate the relationship between the notions of metaphor, representation and play.

Contrary to Juul and Kövecses, Järvinen uses games as the target domain. When suggesting metaphors such as "GAME IS A SYSTEM," "GAME IS A WORLD" (Järvinen 2007, 61, small caps by me), "GAME IS STORY" (Järvinen 2007, 284, small caps by me), however, he is using rather abstract source domains to conceptualize games. We remember that source domains are supposedly more likely to be concrete than abstract. Contrary to Kövecses, Järvinen proposes,

particularly with the GAME IS A SYSTEM and the GAME IS STORY metaphors, situations in which we move between one abstract concept and another abstract concept.

In a sense Järvinen could have a point here, too. Given that we are living in a knowledge economy – a term first coined among others by Peter Drucker (1992 [1969]) – that is, in a society with "an increasing significance of scientific theoretical knowledge" (Engelhardt and Kajetzke 2010, 12), one can assume that abstract concepts are equally part of our everyday experience, and can thus serve as source domains for metaphors. A similar thought is contained in Antony Giddens' concept of the double hermeneutic, which accounts for the mutual influence of scientific knowledge and lay knowledge to the extent that scientific knowledge is not only affected by lay knowledge but that lay knowledge is also affected by scientific knowledge (Giddens 1985, 284, 374). Yet, this perspective would take a bit of the emphasis away from the metaphorical system as being grounded in our bodily being in the world, instead placing more emphasis on the significance of everyday experience for the cognitive linguistic theory of metaphor.

2.4.3 The bodily and spatial basis of metaphor in cognitive linguistic metaphor theory

The humanities are characterized by a couple of significant turns which account for a shift of emphasis from one research paradigm to another. This is similar and yet different to suggestions made by Thomas S. Kuhn (1996 [1962]) concerning paradigm shifts in so-called scientific revolutions. As Doris Bachmann-Medick explains, paradigm shifts apply specifically to the members of one scientific discipline, whereas the impact of a turn is cross-disciplinary (Bachmann-Medick 2006, 16). In the 1960s, there was the famous linguistic turn, in which language and structuralism became the leading paradigms of humanities research (Bachmann-Medick 2006). The so-called spatial turn has been identified as one of the more recent turns, emerging since the mid-1980s and standing for a refocusing of the humanities on concepts of space after space, as a category, was replaced in the 18th century Enlightenment by a focus on time (Bachmann-Medick 2006, 285–286). Henri Lefebvre is hereby considered the central figure of the spatial, offering a "concept of space which is transculturally applicable" (Bachmann-Medick 2006, 291). Lefebvre's approach to space was inspired by Martin Heidegger and the French phenomenologist Maurice Merleau-Ponty (Schmid 2008,

28). Heidegger's *Being and Time,* for instance, emphasizes space as an important category structuring the human being in the world as essentially spatial (Heidegger 2008, 104; Dreyfus 1991, 130). In Heideggerian terms, some elements of Kövecses' simplified world are the elements of a Dasein's environment (Umwelt), i.e. the things which a Dasein deals with in its everyday coping with the world (Heidegger 2008, 66). It is furthermore interesting that Lakoff and Johnson's *Philosophy in the Flesh* (1999) mentions Merleau-Ponty as a major inspiration (next to John Dewey) for their approach on the embodied mind.

> "He used the word 'flesh' for our primordial embodied experience and sought to focus the attention of philosophy on what he called the 'flesh of the world,' the world as we feel it by living in it" (Lakoff and Johnson 1999, xi).

As such, cognitive linguistic metaphor theory can be placed within the spatial turn as it focuses on space and holds that essential concepts we use to make sense of the world are spatial and are derived from our "brains, bodies and bodily experience" (Lakoff and Johnson 1999, 4). Suitably using a body metaphor (heart) they continue "spatial-relations concepts are at the heart of our conceptual system" (Lakoff and Johnson 1999, 30). Accordingly, the authors ground this claim on the assumption that "human concepts [...] are crucially shaped by our bodies and brains, especially our sensorimotor system" (Lakoff and Johnson 1999, 22). Consequently, not only is our being-in-the-world (observations of first order) elementarily spatial, but our understanding of our being-in-the-world (observation of second order) is to a large degree also conceptualized in terms of space. This insight is simultaneously as trivial as it is genius; trivial, because it seems self-explanatory that spatial beings think spatially, and genius, because few people pay attention to this. The most "elementary spatial relations" are the aforementioned container schema, the source-path-goal schema, and other image schemas[25] of spatial relations (Lakoff and Johnson 1999, 31).

This approach to metaphor is particularly interesting for games due to its combination of experience and conceptualization, in the sense that experiences are conceptualized metaphorically, whereby this conceptualization might again be understood as an experience itself.

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[25] In cognitive linguistics, an image schema is understood as "a relatively abstract conceptual representation that arises directly from our everyday interaction with and observation of the world around us. Image schemas derive from sensory and perceptual experience. Accordingly, they derive from embodied experience" (Evans 2007, 106).

2.4.4 Container schema

Originally described as a specific type of metaphor by Lakoff and Johnson (see above) the
"container schema" is now considered a very fundamental schema of thought and therefore
also expressed in the metaphors we use. Its spatial structure consists of "an inside, a
boundary, and an outside." Lakoff and Johnson name this a "gestalt structure, in the sense
that the parts make no sense without the whole" (Lakoff and Johnson 1999, 32). With regard
to metaphor theory, the centrality of the container schema becomes apparent in the fact that
we use them to conceptualize intangible things such as moods, when saying, for example, "I
am *in* a bad mood and I can't get *out* of it," or "I am *in* a game of *Ludo* and I hope they don't
throw me *out*" etc. However, this container schema plays a role not only in the expressions of
everyday life, but also when one conceptualizes things on a theoretical level, where it is also
used frequently. For instance, when Salen and Zimmerman discuss whether play is an element
of games, or if, conversely, games are a "subset of play," they illustrate the first case with a
diagram by placing a circle named "play" *within* a larger circle named "games," and, for the
second case, they invert the order (Salen and Zimmerman 2004, 72–73). However, what is of
interest here is the fact that they demonstrate the relationship through visualized containers,
in that a larger container contains a smaller one. Within the "simplified world" model
proposed by Kövecses, it seems likely that this way of thinking is related to physical
experiences, such as sorting the apple harvest by placing them in different baskets based on
color or other qualities. Another container categorization is in place when Huizinga (1998)
and Roger Caillois (2001) hold that play/games is/are separate *in* time and space. In this case
all play/game activities are sorted in one container which is delimited from all non-play
activities. As such, Lakoff and Johnson hold that a container schema can be "physically
instantiated" for instance as a "bounded region in space" and provide a thematically fitting
example – "like a basketball court or a football field" (Lakoff and Johnson 1999, 32). It seems
very plausible that, provided we primarily think of us and our world as containers,
conceptions of play which distinguish between an inside and outside are based on this
container schema as well.

Consider a distinction between play and games according to which a game is the structure of a
dynamic *object* or a playable artifact (Leino 2012) to be described as opposed to game seen as a

process (play). Play describes here the execution of this dynamic object or its use. One could thus say that the container schema seems to favor the view of a game as an object since the container itself is an object. On the other hand, one could also argue that the execution of this dynamic object (as in playing a game) requires us to constantly perform a distinction between what is and is not part of the game or simply playing the game would translate into the game-as-a-process view or game as play respectively. The latter view would then be supported by the next schema to be introduced.

2.4.5 Source-path-goal schema

Lakoff and Johnson further argue that "our most fundamental knowledge of motion is characterized by the source-path-goal schema" (Lakoff and Johnson 1999, 34). The source-path-goal schema consists of eight elements which I will directly quote from Lakoff and Johnson:

- "A trajector that moves
- A source location (the starting point)
- A goal, that is, an intended destination of the trajector
- A route from the source to the goal
- The actual trajectory of motion
- The position of the trajector at a given time
- The direction of the trajector at the time
- The actual final location of the trajector, which may or may not be the intended destination" (Lakoff and Johnson 1999, 33).

As such, the source-path-goal schema seems to be ideal to describe teleological processes. In other words, and according to Lakoff and Johnson, we understand many concepts in terms of the source-path-goal schema, thereby making them teleological processes. The source-path-goal schema is particularly present in metaphors which feature JOURNEY as the source domain, such as the very well-known LIFE IS A JOURNEY or LOVE IS A JOURNEY metaphors. In this regard, even the experience of playing a game, regardless of whether it is a game of emergence or a game of progression, could be described as a JOURNEY, as can the

process of thesis writing. This latter process can be thought of as a journey consisting of a source location such as an initially observed problem or a research question. The trajector can either be the author or the thesis itself at a certain point in time. The goal of a thesis (e.g. developing an ontology of games) is usually set out in the beginning to give the work a certain "direction" and then determines the route from the source to the goal. The actual research process is then understood as the actual trajectory. For instance, an initial hypothesis might be proven wrong, or one makes other findings "on the way" which seem to be more promising for the research field. The source-path-goal schema can be extended through elements of "a vehicle, the speed of motion, obstacles to motion, forces that move along a trajectory, additional trajectors" (Lakoff and Johnson 1999, 33).

As opposed to the schema presented before, the source-path-goal schema seems to particularly favor procedural aspects of whatever is thought of as exhibiting the source-path-goal schema. With regard to games and an essential distinction between an understanding of games as an object versus games as a process (see e.g. Aarseth 2001b; Malaby 2007; Calleja 2011), it appears that the container schema seems to favor a view of games as an object whereas games understood as a process will perhaps be more readily thought of in terms of the source-path-goal schema.

2.4.6 The metaphoric system of thought – The EVENT STRUCTURE metaphor

Lakoff shows that metaphors are not only systematic in themselves, as already suggested by Black's point that they consist of a system of commonplaces. For Lakoff, the whole system of reasoning is essentially metaphoric, in that metaphors consist on different levels of other metaphors. He explains the relevant principle of "inheritance hierarchies" (Lakoff 1993) with the example of the so-called EVENT STRUCTURE METAPHOR which, at its basis, also consists of a source-path-goal schema.

The target domain of this metaphor consists of "states, changes, processes, actions, causes, purposes, and means" and the source domains are "space, motion, and force" (Lakoff 1993, 220). So for something as abstract as all kinds of events rather concrete experiential domains are used to conceptualize them. Lakoff writes accordingly:

> "the most common abstract concepts – time, state, change, causation, action, purpose, and means – are conceptualized via metaphor. Since such concepts are at the very center of our conceptual system" (Lakoff 1993, 222).

I will give a couple of examples which are derived from Lakoff (1993, 220–222). In the EVENT STRUCTURE METAPHOR:

- STATES (TARGET DOMAIN) ARE LOCATIONS (SOURCE DOMAIN)
- CHANGES ARE MOVEMENTS
- CAUSES ARE FORCES
- ACTIONS ARE SELF-PROPELLED MOVEMENTS
- PURPOSES ARE DESTINATIONS
- MEANS ARE PATHS
- DIFFICULTIES ARE IMPEDIMENTS TO MOTION
- EXPECTED PROGRESS IS A TRAVEL SCHEDULE etc.

What is interesting here is that we can already see that the source domain alone seems to provide what many computer games literally exhibit. Most first-person shooters, and also many other games, consist of locations (current place of action), movements (moving away or towards something else), forces (opponents, physics), destinations ("you have reached your goal"), paths (e.g. labyrinthine game space structures or self-chosen paths in games with less movement restriction), impediments to motion and travel schedules (a mission briefing or a quest description). In addition, Lakoff mentions five different types of difficulties, which are equally reminiscent of common computer game features: "blockages, features of the terrain, burdens, counterforces, lack of energy source" (Lakoff 1993, 220).

BLOCKAGES are present in metaphoric linguistic expressions such as "he *got over* his divorce," "we *ran into* a *brick wall*", FEATURES OF THE TERRAIN are present in "he's *between a rock and a hard place*," "it's been *uphill* all the way", BURDENS are present in "he's *carrying* quite a load," "he's been trying to *shoulder* all the responsibility", COUNTERFORCES are present in "stop *pushing* me around," "she's *holding* him back", LACK OF ENERGY SOURCE is present in "I'm *out of gas*," "I'm running *out of steam*" (Lakoff 1993, 220). There are many more examples which support the idea of an existence of the EVENT STRUCTURE METAPHOR which I cannot repeat here. However, they can be looked up in Lakoff's article, as quoted here.

The notion of the inheritance hierarchies of the metaphorical system derives from the observation that "metaphorical mappings do not occur isolated from one another" – instead, Lakoff argues, metaphors are "organized in hierarchical structures, in which 'lower' mappings in the hierarchy inherit the structures of the 'higher' mappings" (Lakoff 1993, 222). Lakoff uses the LOVE IS A JOURNEY metaphor (level 3) as an example which inherits the structure of the A PURPOSEFUL LIFE IS A JOURNEY metaphor (level 2) and which again inherits the structure of the EVENT STRUCTURE METAPHOR (level 1) (Lakoff 1993, 222). In this regard, the source domains of SPACE, MOTION and FORCE are passed on from the highest level to the lowest level. Eventually, Lakoff concludes:

> "Such hierarchical organization is a very prominent feature of the metaphor system of English and other languages. So far we have found that the metaphors higher up in the hierarchy tend to be more widespread than those mappings at lower levels" (Lakoff 1993, 224).

So-called primary metaphors are essential for the event structure, as these form the basis of the metaphorical conceptual system, according to Lakoff and Johnson.

2.4.7 Primary metaphors

According to Lakoff and Johnson, these recurring spatial logics – found in the EVENT STRUCTURE METAPHOR just as surely as in the container schema and the source-path-goal schema – are derived from our sensorimotor system, and are therefore at the heart of many metaphors which we use in order to conceptualize abstract phenomena such as emotions, morality etc. In other words, when we talk about LOVE in terms of a JOURNEY, it contains the source-path-goal schema. There are so many things we conceptualize in terms derived from our sensorimotor system that some cognitive linguists assume the structures of these metaphors are more basic than those of other metaphors. These basic metaphors are called *primary metaphors* (Lakoff and Johnson 1999, 45). They conceptualize very basic or existential target domains (such as similarity, intimacy, or understanding) in terms of equally basic sensorimotor domains which derive from subjective experience (Lakoff and Johnson 1999, 59).

The primary metaphor CATEGORIES ARE CONTAINERS relies on the sensorimotor domain SPACE – as an example, we can use the phrase, "Are tomatoes *in* the fruit or vegetables category?" The primary experiences this is attributed to is described as "observing that things that go together tend to be in the same bounded region (correlation between common location and common properties, functions, or origins)" (Lakoff and Johnson 1999, 51). Other examples are metaphors such as SIMILARITY IS CLOSENESS, AFFECTION IS WARMTH, RELATIONSHIPS ARE ENCLOSURES, TIME IS MOTION, STATES ARE LOCATIONS, PURPOSES ARE MOTIONS etc. (all examples from Lakoff and Johnson 1999, 50–54).

There exist different theories as to how these primary metaphors are acquired. One of them is the conflation theory proposed by Christopher Johnson as introduced by Lakoff and Johnson (Lakoff and Johnson 1999, 48–49). The core of the theory says that, in early childhood, children conflate concepts such as knowing and seeing, because, for them, the common way of gaining knowledge is through seeing. The two domains of seeing and knowing are activated simultaneously and not yet differentiated. Only at a later stage of development do the two domains become separated, allowing the child to understand that the notion of "I *see* what you mean" is in fact metaphoric (Lakoff and Johnson 1999, 48).

Apart from the domain of SPACE, the domain of WAR or STRUGGLE will also be of importance for this thesis. In the afterword to the 2003 edition of *Metaphors We Live By,* Lakoff and Johnson write

> "We did not yet see the profundity of primary metaphor, and, as a result, some of our analyses were incomplete. This was evident, for example, in our analysis of Argument Is War. Many readers have correctly observed that most people learn about argument before they learn about war. The metaphor actually originates in childhood with the primary metaphor Argument Is Struggle. All children struggle against the physical manipulations of their parents; and, as language is learned, the physical struggle comes to be accompanied by words. The conflation of physical struggle with associated words in the development of all children is the basis for the primary metaphor Argument Is Struggle. As we grow up, we learn about more extended and violent struggles like battles and wars, and the metaphor is extended via that knowledge" (Lakoff and Johnson 2003, 264–265).

Accordingly, the ARGUMENT IS WAR metaphor is based on the primary metaphor ARGUMENT IS STRUGGLE, which is derived from the experience of "physical struggle." An apparent physical experience of struggle can derive from all sorts of FORCES. Therefore, I will briefly introduce the forces schema as analyzed by Johnson.

2.4.8 The force gestalt

In his Master's thesis, Roelf Kromhout suggests making Mark Johnson's forces schema productive for the analysis of computer games (Kromhout 2010, 6). As we have seen, the source-path-goal schema, the EVENT STRUCTURE METAPHOR, and the ARGUMENT IS STRUGGLE/WAR metaphor are all in some way suitable for computer games: many games provide a spatial or a mission structure which allows for the source-path-goal schema to be materialized. Moreover, the source domains of the EVENT STRUCTURE METAPHOR are practically a toolbox of the most important elements of computer games, and, clearly, when games are defined as providing some sort of conflict (see e.g. Salen and Zimmerman 2004), there is some sort of STRUGGLE involved. In addition to that, we have seen with Kövecses that FORCES are among the most common source domains, and also, apart from SPACE and MOTION, the EVENT STRUCTURE METAPHOR is based on the source domain of FORCE.

Similar to the idea of primary metaphors, the cognitive metaphor theorist Mark Johnson (1987) suggests that all meaning as expressed in metaphorically structured thought is based on our bodily existence in the world and our bodily-based experience of the world.

> "The centrality of human embodiment directly influences what and how things can be meaningful for us, the ways in which these meanings can be developed and articulated, the ways we are able to comprehend and reason about our experience, and the actions we take. Our reality is shaped by the patterns of our bodily movement, the contours of our spatial and temporal orientation, and the forms of our interaction with objects. It is never merely a matter of abstract conceptualizations and propositional judgments" (Johnson 1987, xix).

One of these schemata according to which we think and experience the world is what Johnson calls the FORCE gestalt. He derives it from a form of primordial existential experience.

"In order to survive as organisms, we must interact with our environment. All such causal interaction requires the exertion of *force*, either as we act upon other objects or as we are acted upon by them" (Johnson 1987, 42, italics in original).

He assumes that this FORCE gestalt is based on our everyday experience of forces which affect us bodily (e.g. wind, gravity) in all sorts of interaction. Yet, we only recognize forces consciously which are in some way unusual. As such, particularly strong wind is registered, while wind of a more everyday force is generally not (Johnson 1987, 42). Johnson furthermore identifies six characteristics of how forces are experienced, which, altogether, form the "general *gestalt structure* for force" (Johnson 1987, 44, italics in original).

1. Force is experienced through *interaction* with objects, such as bumping into furniture in an unfamiliar darkened room, or eating too much and feeling a bloated stomach.

2. In addition, the "experience of force usually involves the movement of some object (mass) through space in some direction" (Johnson 1987, 43). Thus force is always directed as coming from somewhere and acting in some or more directions.

3. A force involves a "single a *path of motion*" in that e.g. "the force of gravity pulls a leaf along a path toward the ground, until that path is terminated when another object (e.g., the ground) counteracts the gravitational force" (Johnson 1987, 43).

4. "[F]orces have *origins* and *sources* and because they are directional, agents can direct them to *targets*" (Johnson 1987, 43).

5. "Forces have *degrees of power or intensity*" (Johnson 1987, 43).

6. "[B]ecause we experience force via interaction, there is always a *structure or sequence of causality involved*" (Johnson 1987, 44). That is, each force is initiated by something and initiates something else. Johnson provides the example of a door which closes because a person or the wind made it close.

These forces are then to be found in many metaphors we use in everyday life – such as the metaphor LOVE IS A PHYSICAL FORCE, which is visible in linguistic expressions such as "She *knocked* me out," or "We were *drawn* to each other" (Lakoff and Johnson 1999, 83). Also, the BLOCKAGES, BURDENS and COUNTERFORCES from the EVENT STRUCTURE METAPHOR do not only have an influence on motions in space; they also derive from experience of forces. In turn, whatever is conceptualized in these terms can only be thought of in this manner because it is experienced as some sort of force in the first place. For instance, when speculating about

my upcoming thesis defense, I will perhaps perceive my opponents as COUNTERFORCES or BLOCKAGES on the way to my goal of successfully defending my thesis. I might verbalize this as, "When I was half *way* through, the opponent *attacked* me *heavily* and stopped my *progress* for a minute." This verbalization contains several metaphors: 1. A THESIS DEFENSE IS A JOURNEY, 2. A THESIS DEFENSE IS STRUGGLE, and, clearly, it is based on THE EVENT STRUCTURE METAPHOR on a higher level as suggested in 2.4.6. According to Lakoff and Johnson's theory, this conceptualization of the thesis defense is again due to its derivation from spatial and bodily experiences. In turn, this can also mean that the thesis defense is actually experienced and understood in such a way on a bodily basis while it is happening. For instance, when my opponent attacks me and I believe she has really found a weak spot (see the force element even in this conceptualization) in my argument, it can be the case that I have a bodily reaction to that, such as a cramping or contraction of my muscles – I might even break out in a sweat. Muscle contractions and cramps, then, are forces which are produced by the body itself. The retrospective conceptualization can be a hint for that. Consequently, when we conceptualize something in terms of STRUGGLE or a JOURNEY, this can mean that we experience these things partly as some sort of force.

Johnson (1987, 45–47) lists seven kinds of forces which shape the FORCE gestalt. These were also presented in a concise manner by Kromhout (Kromhout 2010, 17–18). Apart from the already mentioned BLOCKAGE ("the confrontation with objects that resist the application of force" (Kromhout 2010, 17)) and COUNTERFORCES ("two entities that carry or wish to apply force are being confronted with each other" (Kromhout 2010, 17)) there are also:

- COMPULSION: "the experience of being moved by external forces such as wind or water" (Kromhout 2010, 17).

- DIVERSION: "two force vectors meet and either one or both their trajectories are altered by the colliding forces" (Kromhout 2010, 17).

- REMOVAL OF RESTRAINT: "the removal of a barrier or absence of potential restraint make possible the exertion of force" (Kromhout 2010, 17–18).

- ENABLEMENT: "this occurs when a subject becomes aware of its ability to exert force. There are little or no restraints on the possible exertion and the focus on the possibility of successful interaction creates a sense of enablement" (Kromhout 2010, 18).

- ATTRACTION: "when two objects, subjects or other form of force vectors are drawn to each other" (Kromhout 2010, 18).

Again, even without having particular games in mind, the FORCE gestalt also seems to be present in many games. For instance, shooting a ball at the goal in *FIFA* 13 (Electronic Arts Canada 2012), or firing any weapon in a shooter game, is an exertion of force. Two teams in football, or in any other kind of competitive game and sport based on the diametric interests of two opposing parties, constitute some kind of COUNTERFORCE to each other. Also, in football, the goalkeeper, as well as a defensive wall in the case of a direct free-kick, are clearly BLOCKAGES. On the other hand, the goal in football seems to attract the ball. and is therefore some sort of ATTRACTION. Players enable the ball to move through an exertion of force when kicking (ENABLEMENT), and so on. In football, we might say that these forces occur literally. Yet even a concept such as LOVE is largely metaphorized in terms of SPACE (see LOVE IS A JOURNEY) and also of FORCE, as we shall see in Chapter 4. In the case of the metaphorically structured concept of LOVE, FORCE is a metaphorical source domain.

2.5 Conclusion

In this chapter, I aimed to introduce some general assumptions about metaphor. Clearly, there is much more to the theory of metaphor than has been covered in this chapter, and, therefore, this has to be considered a limited account of metaphor. Yet, I believe that, for the current state of research on metaphor in games, this shall suffice. What is important to keep in mind is that, as I have shown, there are different views on metaphor, of which the interaction view is the most acknowledged in contemporary discourses. From this view, one can derive two ideas of metaphor: as a triadic structure, and as a paradox. These ideas will prove particularly important in the following chapter.

However, the most important contemporary theory of metaphor is the cognitive linguistic view on metaphor. Its potential lies in its connection between a cognitive and a bodily understanding of the world. From our essential bodily situatedness in the world, this theory derives the basic assumption that most metaphoric concepts are spatial in one way or another. In addition, it suggests that metaphor is not the exception to human cognition, but the rule, and, as a result, focuses much more on conventional metaphors and their underlying systems

than philosophical approaches to metaphor, which commonly put an emphasis on creative or novel metaphors. Hence, with this theory, one can assume that most things humans think and talk about are always already metaphorized in one way or another.

Chapter 3 – Metaphor, representation, and play

3 On the relation of play, metaphor, and representation

In Section 1.2.1, showed that there is a number of theorists who developed their concepts and theories of play and games independently from computer games. Among those are Johan Huizinga (1998 [1938]), Ludwig Wittgenstein (1958 [1953]), Gregory Bateson (2000 [1954]), Eugen Fink (1968 [1957]), Roger Caillois (2001 [1958]), Hans-Georg Gadamer (Gadamer 2004 [1960]) and Brian Sutton-Smith (1997), who, among others, were interested in the description of structural as well as functional aspects of play and games. As already mentioned in the introduction, most of these theories focus on the investigation of non-computer games and play (although games featuring an element called "computer" (Chapter 1) did already exist while most of these theories were written). That is why I refer to them as non-computer game and play theories.

Influential works in the study of computer games, such as Jesper Juul's *Half-Real* (2005) and Katie Salen and Eric Zimmerman's *Rules of Play* (2004), refer to some of these theories for their own definitions of play and games. Juul develops his computer game definition from what he calls the "classic game model" (2005, loc. 289), which consists of a collection of characteristics of game and play definitions by authors such as Johan Huizinga, Roger Caillois, and Salen and Zimmerman. The latter in turn also discuss the same authors for their definition of games (Salen and Zimmerman 2004, loc. 1939–2362). Also, introductions to the study of computer games, such as *Understanding Video Games* (Egenfeldt-Nielsen, Smith, and Tosca 2008), tend to refer to these theories. Although the usefulness of formal definition of play and games is questioned by authors such as Aarseth (2011) and Calleja (2011), non-computer game and play theories continue to influence the study of computer games. Therefore, these non-computer game and play theories are of interest for this thesis not only because they influenced the development of computer game theory, but, specifically, because some of them seem to suggest a kind of general affinity between the concepts of games/play and metaphor.

This chapter intends to show this mutual affinity between the concepts of metaphor and play. This will be performed through a study of relevant play theories which partly draw relations between the concepts of metaphor and play themselves. I will therefore introduce the most important aspects of Huizinga's and Caillois' theories of play and use them as the background for further discussions of other theories such as those proposed by Bateson (2000), Gombrich (1963c), Fink (1968), Sutton-Smith (1997), Walton (1993), and Scheffler (1992), all of which refer in different ways to the idea that play is metaphoric. In addition, looking into these approaches reveals that there is not only a reciprocal relationship between play and metaphor but instead a triadic relationship between the concepts of play, metaphor, and representation.

I intend to show the very close relationship between the concepts of play, metaphor, and representation, aiming to provide an understanding of why the notion of metaphor is relevant for the study of game and play, and why it can thus play a role for the study of computer games.

I will discuss in nine steps the following issues with regard to the relation between metaphor, representation and play:

1. The separateness of play as postulated by Huizinga (1998) and Caillois (2001) is important, since it provides the necessary precondition that play can represent something in the first place,

2. The idea of play as representation as equally suggested by Huizinga (1998) and Caillois (2001),

3. The observation that some authors (e.g. Fink 1968; Luhmann 2000) consider play a dual structure, which, apart from itself, also always refers to something which it is not. In this light, play can be seen as fostering an inherent self-reference (Selbstreferenz) as well as an external reference (Fremdreferenz). This can be seen as an access point for metaphor, since metaphor is likewise commonly considered to perform a self-reference as well as an external reference. As we have seen in the last chapter, metaphor consists of an essential twofold structure if we only take the target and the source domain into consideration. However, the interaction view on metaphor suggests regarding metaphor as an essentially triadic structure (Müller 2008) similar to

triadic sign structures as suggested, for instance, by Charles S. Peirce.[26] I will show that it is equally possible to conceptualize play as a triadic structure with the help of Bateson (2000).

4. Further enquiry shows that all three concepts - metaphor, representation, and play - tend to be used to explain each other. My thesis is: this is possible because they all imply a specific paradox which is grounded in the above-mentioned essential triadic structure.

5. A discussion of approaches which combine the concepts of play, metaphor and representation intends to demonstrate the existence of this problem. As such, I shall discuss approaches by the art historian Ernst Gombrich (1963c), the philosopher Kendall Walton (1993), and the philosopher Eugen Fink (1968). All of them relate all three concepts to each other in different ways, such that it becomes questionable which of the three concepts they actually try to characterize, given that they use the remaining notions or examples thereof to do so. The similarity between these three concepts is so striking that play and metaphor can even appear as the same kind of thing, so that one could come to think in turn that play and games are always already metaphoric.

6. The insights gained from the preceding point will be exemplified in a re-reading of Huizinga's play theory which intends to show that even Huizinga combines these three notions with each other.

7. On the background of Huizinga's evolutionary theory of play, I aim to argue for an equiprimordiality (Dreyfus 1991, 166; Heidegger 2008 [1927]) of metaphor, play and representation for human culture, and suggest an evolutionary approach to representation, metaphor and play (3.7). Thus, it is possible to argue against Huizinga and say that play is not the engine of culture and cultural development but the paradox which in turn allows for play, representation, and metaphor to come into existence in the first place.

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[26] It is equally possible to consider Saussure's concept of a sign as a triadic structure despite being commonly referred as a dual structure. In this regard a sign consist of the material sign, its content and the connection between the two which for Saussure is provided by the conventions implied in language (Saussure 1986).

8. Closer observation of what I am going to introduce as the evolutionary model of metaphor, representation, and play shows, however, that a notion of agon, which can be regarded as synonymous with the notion of play in Huizinga, is seen to be the engine of cultural development (3.8). Further inquiry will suggest that agon itself can be considered a paradox in praxis and thus be the core of evolutionary theories of culture.

9. Finally, I will suggest a perspective on play, representation, and metaphor as a praxis which is repeated on the level of concepts and thought.

I have already introduced the substitution view, the comparison view and the interaction view of metaphor, and, within the latter, the cognitive linguistic approach as well as Cornelia Müller's and Paul Ricœur's notion of metaphor as a paradox in the previous chapter. Therefore, I will now begin with the introduction of theories of play and games by the mentioned authors.

3.1 Play as separated

There are at least two important reasons to discuss the Dutch cultural historian Johan Huizinga in this chapter. Firstly, he wrote one of the most influential works on the anthropology of play and games in the twentieth century. His book *Homo Ludens* follows the argument that culture and play are deeply intermingled, in that human "culture arises in the form of play" (Huizinga 1998, 46).

Secondly, Huizinga has been very influential to the contemporary study of games and of computer games – especially thanks to his definition of play and the idea of the separateness of play as it is exemplified, for instance, by the magic circle. The definition of play has been discussed by many contemporary computer game scholars looking for a suitable definition by which to define games, and, eventually computer games (e.g. Juul 2005) or to introduce the study and design of games and computer games (Salen and Zimmerman 2004; Dovey and Kennedy 2006, 24; Egenfeldt-Nielsen, Smith, and Tosca 2008, 24–25). The concept of the magic circle was famously popularized by Salen and Zimmerman (2004), who raised its status

from an example[27] to the level of a concept[28]. Apart from Huizinga, Caillois (2001) also follows a similar approach.

The reason I discuss these two authors here is that Huizinga's and Caillois' conception of play as separated from everyday life seem to be a basic requirement in order to allow a consideration of play and/or games as metaphoric. I will elaborate on this idea throughout this chapter. Furthermore, Huizinga's concept of play as separate contains a similar paradox to that described by Gregory Bateson[29] (see 3.4). The interesting part of this observation is that this paradox becomes very apparent when Huizinga discusses play metaphors in language. Finally, this paradox can be solved theoretically by introducing a missing distinction between play and games. I will discuss the last two aspects in more detail in 3.6 and 3.6.1.

As already mentioned, the most important concept inspired by Huizinga within game studies is that of the magic circle. Huizinga introduced the term as one example among others in order to signify the separateness of play from normal life in terms of a spatial model – the magic circle. More central, I believe, is the notion of play as separated. This is essential in Huizinga's definition of play[30]:

> "Play is a voluntary activity or occupation executed within certain fixed limits of time and place, according to rules freely accepted but absolutely binding, having its aim in itself and accompanied by a feeling of tension, joy and the consciousness that it is 'different' from 'ordinary life'" (Huizinga 1998, 28).

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[27] Huizinga uses the magic circle as one example of many to account for the separateness of play. The notion of the magic circle only occurs six times in *Homo Ludens* and is thus not as central as it sometimes seems.

[28] In the aftermath, the concept of the magic circle was controversially received by many scholars who mostly abandoned the idea of the magic circle as an insurmountable non-permeable membrane which would allow for ideas such as total immersion into a game – see Taylor (2006), Malaby (2007), Liebe (2008), Consalvo (2009), Aarseth (2011), Calleja (2011; 2012), Stenros (2012) etc. The matter is still being discussed and generating controversy. On the gamesnetwork list (a mailing list initiated by the Digital Games Research Association (DiGRA) which can be considered the central communication platform for the game studies community) a long discussion occurring in early 2012 was initiated by an article by Eric Zimmerman (2012), which has shown that there are still controversial positions with regard to this concept.

[29] This is why Stenros (2012) could account for the magic circle in terms of the frame theory by Erving Goffman.

[30] The definition is Huizinga's second definition of play which is believed by some to be narrower and more appropriate (Vidart in Frasca 2007, 43).

In fact, one can read Huizinga's whole definition as a series of separations and distinctions. For instance, defining play as "voluntary activity" implies a separation, and, as such, a distinction from all kinds of involuntary activities. Such involuntary activities are best represented by existential activities such as working, making food, eating and so on. This separation of play is further supported by its existence within "fixed limits of time and place" (Huizinga 1998, 28) which separate play from other limits of time and space for instance those of work or studying. Favoring the spatial aspect of play over the temporal, Huizinga writes accordingly:

> "More striking even than the limitation as to time is the limitation as to space. All play moves and has its being within a play-ground marked off beforehand either materially or ideally, deliberately or as a matter of course. [...] 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 [...]" (Huizinga 1998, 10).

The magic circle was applied by Huizinga as an example in order to demonstrate the separateness of play from normal life due to its dependency on a certain playground. Salen and Zimmerman elevated this example to a concept and made it the label to signify the general separateness of play from reality as the magic circle. It implies not only the spatial distinction of play from "reality" but also an ideal or psychological separateness. This can be illustrated with the idea of the lusory attitude suggested by Bernard Suits (2005). The lusory attitude roughly means that players commit to the rules of a game even if this implies that they can only apply "less efficient means" in order to solve a problem than they would normally use (Suits 2005, 34; also in Salen and Zimmerman 2004, 77).

What is important for Huizinga is that the player commits to the rules (voluntarily) which are essentially different from the social rules of his ordinary life. The rules define the time and space of a game differently from social rules. Huizinga strengthens the delimitation of play from the ordinary, saying that play has its aim in itself, i.e. it is essentially self-sufficient and is thus fundamentally different from all kinds of other social systems which organize ordinary life, such as the finance system or the legal system, all of which are the result of a division of society into different systems, and are consequently not self-sufficient (for the legal system see e.g. Luhmann 1995).

Caillois' definition of play is very similar to Huizinga's, in that play for Caillois is an activity that is "free, separate (fixed limits of space and time), uncertain, unproductive, determined by rules and implies a kind of make-believe" (Caillois 2001, 9–10). As such, both definitions share the common assumtions that play activities are to be considered as being: separated from other activities, voluntary or free[31], rule-based, and self-sufficient.

The separateness of play as defined by the rules is a formal element, and thus belongs to play itself. In addition to that, Huizinga and Caillois enter a player subject into the equation, which accounts for the acknowledgment of the separateness of play. As such, for Huizinga, play is characterized by "the consciousness that it is 'different' from 'ordinary life'" (Huizinga 1998, 28) or "a special awareness of a second reality or of a free unreality, as against real life" (Caillois 2001, 10).

The separateness of play is important insofar as this is a necessary entry point for metaphor to come into the equation – since, as we have seen, the triadic structure of metaphor depends on a distinction between the target and the source domain.

3.2 Play as representation

In addition to this moment of the separateness of play, both Huizinga and Caillois relate play essentially to a notion of representation. Huizinga attests that play has two basic functions: it can appear "as a contest *for* something or a representation *of* something" (Huizinga 1998, 13, italics in original).

Specifically, the representational aspect of play is derived from its separateness. As such, Huizinga writes, "the 'differentness' [...] of play [...] [is] most vividly expressed in 'dressing up'" (Huizinga 1998, 13). Huizinga obviously refers here to a form of play which is closely related to the praxis of disguise, acting, etc., and thus to Caillois' category of mimicry, which I will discuss presently. He continues: "the disguised or masked individual 'plays' another part, another being. He *is* another being" (Huizinga 1998, 13, italics in original). It is assumed that it is this separateness of play that is the requirement for it to represent in the first place. In particular, Huizinga's observation that the disguised "*is* another being," although she is "just"

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[31] The validity of voluntariness and freedom as characteristics of play is questioned by (Ehrmann 1968, 42–43).

playing it, reminds us of Ricœur's notion of metaphor (see chapter 2) as a paradox which combines a literal "is not" with a metaphorical "is" (Ricœur 2003a, 302). Consequently, one can furthermore assume that this representational aspect of play is a connection point for a relation between metaphor and play.

Caillois emphasizes the element of representation even more in his take on play in naming a particular category of play "mimicry" (Caillois 2001, 12). Whereas Huizinga emphasizes merely one characteristic of play, namely agon, Caillois distinguishes four types of play: agon[32], alea, ilinx, mimicry (Caillois 2001, 12). Furthermore, as opposed to Huizinga, Caillois introduces a distinction between play and game. Missing such a distinction in his native French (like Huizinga in Dutch) he named them according to the Greek *paidia* (improvised play) and *ludus* (rule-based game).

Although Huizinga distinguishes between play as ruled games (contest *for* something) and as representation (*of* something), he reconciles the distinction in that representational play can also become involved in a contest. Caillois, on the other hand, is stricter in his distinction. He says that "games are not ruled and make believe. Rather they are ruled *or* make-believe" (Caillois 2001, 9, italics in original). Unlike Caillois, who considers the relationship between rules and make-believe as a mutually exclusive relation, Juul sees it as inclusive, according to which computer games generally are "ruled and make-believe" (Juul 2005, , loc. 173). Others have made similar distinctions. As I have shown in section 1.1, Aarseth already introduced a distinction between mechanics and semiotics for computer games in his book *Cybertext* ,calling it here the difference between the "internal, coded level" and the "external, expressive level" (Aarseth 1997, 41; see also Aarseth 2003; Elverdam and Aarseth 2007; Aarseth 2011). Within his project of a game ontology, Aarseth criticizes the notion of fiction with regard to games and suggests distinguishing between real, virtual, and fictional elements in games instead of proclaiming a general layer of fiction in games (2005a)[33]. In his *Introduction to Game Studies,*

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[32] Caillois normally uses the circumflex above the letter "o" when writing the word agon. For reasons of homogeneity I will write the word without this accent.

[33] In a lecture of the introductory course "Foundations of Play and Games" Aarseth provides the example of a sword from *World of Warcraft* (Blizzard Entertainment 2004) which consists of all three ontological layers – it is for different reasons fictional, virtual, and real. The sword is virtual in that certain characteristics such as its power are simulated in a game which makes it more or less powerful compared to other weapons. Its silver color and the thereby indicated sharpness, however, are fictional as this is a purely visible but not simulated element in the game. Finally, the sword is real in that it

Frans Mäyrä suggests a similar distinction which he calls core (=mechanics) and shell (=semiotics) (Mäyrä 2008).

The difference between Caillois' games of make-believe and ruled games is determined by how that which is played is distinguished from its non-game environment. In ruled games, the rules determine what *is* and what *is not* part of a game. However, in games of make-believe, the "chief attraction [...] lies in the pleasure of playing a role, of acting *as if* one were someone or something else, a machine for example" (Caillois 2001, 8). Caillois argues that in a game of make believe the "*as if* replaces and performs the same function as do rules" (Caillois 2001, 8). As such, one cannot fully separate rule-based games from games of make-believe.

With the introduction of make-believe, Caillois paves the way for one of his four game categories, mimicry games (the others are agon, alea, and ilinx). Being a concept originally applied to animals whose primary survival strategy is grounded in imitation, Caillois uses "mimicry" to describe the simulation games of human beings, namely games of disguise, theater play, spectacles, children's play of imitations, and so on. For Caillois "the pleasure [of games of simulation] lies in being or passing for another" (Caillois 2001, 21). This seems to describe the essence of being an actor, and, in a more serious version, this might also apply for a spy or an impostor. The mask is here the element which indicates the *as if* of make-believe. It communicates that the wearer of the mask only represents whatever is denoted by the mask, but that she herself is different from what is represented. In the category of mimicry games, Caillois includes all kinds of games which imply that a "subject makes believe that he is someone other than himself. He forgets, disguises, or temporarily sheds his personality in order to feign another" (Caillois 2001, 19). In this regard, mimicry games clearly expose a function of representation in that one actor pretends to be somebody else.

However, rule-based games can also represent something else, insofar as they have the capacity to act as simulations. For instance, the rule-based *Kriegsspiel* (see Chapter 1) represents real combat situations. Thus, I am not entirely convinced that make-believe and rules mutually exclude each other, since make-believe is itself a convention and can therefore be called a rule. On the other hand, one can say that not all rule-based activities foster make-believe in terms

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carries a certain value amongst players of *World of Warcraft* so that it is auctioned for real money via eBay.

of fiction. I believe, however, that what Caillois introduces with this distinction are actually two perspectives which can apply to the same object. In the case of acting, the rule is that an actor playing Hamlet is not really Hamlet. In the case of *Kriegsspiel,* both perspectives apply: on the one hand, we can regard *Kriegsspiel* from the perspective of a rule-based activity, and can, for instance, say that a banana has no function on the playing field and consider it therefore external to the game. On the other hand, one can see *Kriegsspiel* as a representation of a specific battle situation, and thus as a simulation – which equates with the second perspective. Obviously, from the second perspective the game would still be rule-based. This is why one cannot, as Caillois suggests, strictly distinguish between rule-based games and games of make-believe.

Niklas Schrape refers to a useful distinction made by Walter Benjamin between mimicry and mimesis as different kinds of representations. Mimicry is considered an "inner process", as in forms of roleplay or acting, and applies to a subject pretending to be someone else. Mimesis is an "externalized state" which applies for toys that mimic something else, such as, for instance, a firetruck (Schrape 2012, 67). As such, the latter form of representational play accounts for *Kriegsspiel* as described from the second perspective, whereas the former form applies for the actor playing Hamlet or a child playing its parents or the like. What mimicry and mimesis have in common is that their essential *as if* is very close to the Wittgensteinian *seeing-as* which Müller uses to describe the essence of metaphor (2.3.2).

No matter if a child mimics adult affairs as part of its child's play (for instance, when playing a policewoman or a doctor) or if an adult embodies Hamlet on a stage, they will never be able to completely hide their physical characteristics, gestural idiosyncrasies, their personality and individual playing style and purely enact the other character. On the contrary, the actress' personality, her gestures, her way of speaking etc. will always permeate the simulation in a stronger or weaker way. One would even need to say that the represented character becomes specifically mediated through the actress' idiosyncrasies concerning her style of playing.

This implies that Hamlet, played by me, will take on certain characteristics which are my very own. When I mimic Hamlet walking, Hamlet will, to a certain degree, walk like me – even if I try to abstract from my own style of walking, I will not be able to hide it completely. Hamlet played by my office-mate will certainly share some characteristics of his very own distinct personality.

From this point of view, it seems like simulation (understood as mimesis) and metaphor share a similar structure. In a simulation, as just described in the acting example, the simulated comes into existence only through the simulating. Hamlet is only brought on stage due to myself as an actor in a specific staging of Hamlet. Similarly, in the conceptual metaphor FOOTBALL IS WAR, we understand football in terms of war. In other words, we use the semantics of the war concept to make sense of football. In this case, war terms are simulating or mimicking football for us.

Just as metaphor emphasizes specific aspects from the target domain through the source domain (speaking about football in terms of war makes particularly apparent the war aspects of football, in a phenomenon also known as the highlighting characteristic of metaphor (Lakoff and Johnson 2003, 10–13)), Hamlet will then to some degree show some of my own characteristics. Or, better, Hamlet will only be staged through me.[34]

On the other hand, one can also say that metaphor is some kind of representation or simulation. The process of understanding verbal metaphor, for instance, has been described as a simulation. On the background of cognitive metaphor theory, Raymond W. Gibbs Jr. suggests that the understanding of metaphors such as "*grasp* a concept" implies "simulating what it must be like to engage in these specific activities, even though these actions are, strictly speaking, impossible to physically perform" (Gibbs 2006, 434). In this regard, when understanding the metaphor "to grasp a concept," a sensori-motor activity (in this case, grasping) is simulating an abstract concept.

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[34] At the International Congress for Semiotics of the German Society for Semiotics at the University of Potsdam in October 2011, Dieter Mersch suggested that this "through" clearly indicates a medial relationship, drawing on his media theory which is based on Ardono's negative dialectics. Mersch remarked that dialectics is often misunderstood as dialogic, and thus as an interplay of back and forth between two opposing positions. If dialectics were to be understood in this way, it would be better called duolectic. The preposition "dia," however, means "through", and, if something becomes presented through something else; one can speak of a medial relationship between the two. In this regard, metaphor can also be understood as a medium. German media philosophy has a particularly strong understanding of the "Methaporizität des Medialen" [Metaphoricity of the medial], as the title of Georg Christoph Tholen's (1999) conference paper suggests.

3.3 Play as a dual structure

Apart from its separateness and representational aspects, which allow us to draw some parallels to the concept of metaphor, play has also been described as exhibiting a dual structure, which is another indicator for a similarity between metaphor and play.

Explaining how entertainment works as a system within his theory of the mass media system, systems theorist Niklas Luhmann uses games as a "general model" and "as a point of orientation" (Luhmann 2000, 51). As such, he holds that a game:

> "…is a kind of doubling of reality, where the reality perceived as the game is separated off from normal reality without having to negate the latter. A second reality is created which conforms to certain conditions and from which perspective the usual ways of living life appear as real reality. The constitution of a game requires a time limit that is foreseeable in advance. Games are episodes. They are not transitions to another way of living. People are only preoccupied with them from time to time, without being able to relinquish other opportunities or to shed other burdens. But that does not mean that real reality exists only before and after a game. Rather, everything that exists does so simultaneously. The game contains, in each of its operations, references to the real reality which exists at the same time. With every move it marks itself as a game; and it can collapse at any moment if things suddenly get serious. [...] [Thus, it requires an] orientation to a set of rules which people have in mind when they identify their own and others' behaviour (within the game) as appropriate" (Luhmann 2000, 51–52).

Luhmann offers here a reconciliation of game/play and reality in allowing both games and reality to be present at the same time. As such, he argues for a separation of play/games from reality, while simultaneously allowing game and play to be real as sort of a "second reality". In doing so, Luhmann does not have to rely on a dubious notion of fiction. However, this results in the paradoxical distinction between a "real reality" and games as a "second reality." While existing in parallel with real reality, every game simultaneously refers to reality. In terms of Luhmann's systems theory, one can understand playing a game as a continuous series of distinctions performed with every move of a game. This is what Luhmann has in mind when saying that, "with every move it [a game] marks itself as a game" (Luhmann 2000, 52). Taking football as an example, one can say that as long as the game is played, every passing of the ball is simultaneously a distinction that this passing of a ball is the passing of a ball in a football

match and not, for instance, an unconventional way of carrying the ball home. Furthermore, an object like a chair in play can, for instance, be used to mimic a car or an airplane in play, but since it does not cease to be a chair it also refers to reality. However, it is up to the players to keep up this distinction. As soon as somebody enters the room who needs the chair to accommodate guests for the five o'clock tea, the game is at risk of collapsing and the distinction cannot be upheld any further. Following Luhmann, a game is only thinkable as a continuous oscillation between real reality and game reality which includes those elements which belong to the game and excludes those which do not belong to it. For instance, football as a system includes a ball, a goal, fouls, etc. but it excludes the naked person running across the football field, or even the audience, while a game is played. This, however, does not deny the existence of play, since play does not consist of specific objects like toys or similar things but of a framing (see Bateson 2000; Goffman 1986) which consists of this very oscillation between what is and what is not part of play.

A similar yet different approach to play as a dual structure is provided by the German philosopher Eugen Fink (who was influenced by Edmund Husserl and Martin Heidegger). It is interesting for three reasons with regard to the topic of this chapter. Firstly, similarly to Luhmann, Fink criticizes the idea of the separation of frivolous and nonsensical play from the seriousness of everyday life (Fink 1968, 19); secondly, whereas in Luhmann play/game always refers to reality, in Fink's view play generally has a representative character; and thirdly, he considers games as consisting of a double structure. In Fink's model, these three ideas are inextricably interconnected.

In the famous special issue "Game, Play, Literature" of *Yale French Studies* from 1968, Fink criticizes the common distinction between frivolous play and serious life. Instead of being "unrelated to our normal life," he writes, play "relates to it [normal life] in a very meaningful way, namely in its mode of representation" (Fink 1968, 22). The representational aspect does not mean here that, in play, we mimic other aspects of life in the same way as the mimicry play of an actor does. Rather, play is considered as essential for human existence as other existential phenomena: "play is a basic existential phenomenon, just as primordial and autonomous as death, love, work and struggle for power" (Fink 1968, 22).

Fink continues that play:

"…is *not* bound to these phenomena in a common ultimate purpose. Play, so to speak, confronts them all – it absorbs them by representing them. We play at being serious, we play truth, we play reality, we play work and struggle, we play love and death - and we play even play itself" (Fink 1968, 22).

Here, Fink seems to be saying that play does not only represent the phenomena of death, love, struggle and so on, but that these phenomena are all contained in play. Existential phenomena are repeated in play, like a world in a world or a life in a life. In other words, it can only represent these phenomena by repeating them in itself.

This "double nature of the plaything and the player and his [Fink's] treatment of the play world" (Fink 1968, 22) is what Ute and Thomas Saine, the translators of Fink's article, have pointed out as Fink's most interesting idea with regard to play. It is this double nature and the inherent representational aspect of Fink's concept of play which provide meaningful connections to consider play as metaphoric – a thought which Fink develops while investigating "the relation of play and being" (Fink 1995, 100). Let me provide a brief look at the plaything, the player and the play world.

To Fink, the plaything:

"…represents the totality of objects: play is always a confrontation with Being. In the plaything the whole is concentrated in a single object. Each game is an attempt at existence, a vital experiment that encounters in the plaything the essence of unyielding reality" (Fink 1968, 23).

It is not entirely clear if Fink refers exclusively to physical objects, like toys, when speaking of the plaything, or if he also includes ideal objects that one can play with, such as thoughts or concepts. However, Fink does not simply say that a play object represents some other object, as a stick could represent a horse to a child (Gombrich 1963a; 1963b; also in Scheffler 1992, 65). Instead, and since play is a world in a world, it "represents the totality of objects" (Fink 1968, 23) within the structure of a played game. In this regard, play is, to him, "an attempt at existence" because elements that are beyond the control of the player will have an impact on play. For example, when throwing a ball in the air, it will certainly fall again, and there is always a risk that the player will fail to catch it. In this regard, play is a specific way of engaging with Being or with one's existence, since it makes some essential laws and structures

of Being experienceable. On the other hand, one can say that each plaything makes the totality of things appear from its specific perspective. For instance, playing with a ball in a courtyard will reveal all other objects in the yard in their specific reaction when being hit by a ball. A wall, for instance, will make the ball bounce back in a specific way, which in turn will reveal the ballness of the wall (or should we call this the "ballistics" of the wall?).

The double structure, then, lies in the fact that playthings are objects from within the world (balls, sticks etc.), while simultaneously representing the totality of things in play.

This double structure is also present in the player's "schizophrenia" or "split-personality", which derives from the circumstances that players are simultaneously "the real man who 'plays' and the man created by the role within the play" (Fink 1968, 23). This does not mean that a player would not be capable of distinguishing between "'reality' and 'illusion'" (Fink 1968, 23) like a schizophrenic; instead, Fink suggests that the player is aware of his "double-existence." "Man exists in two spheres simultaneously, not for a lack of concentration or out of forgetfulness, but because this double personality is essential to play" (Fink 1968, 23).

Both the plaything and the player are essential elements of the play world. According to Fink, "all play magically produces a play world." Moreover, this play world presents a double structure, in that one plays in the "so-called real world" as well as a "play world" (Fink 1968, 23). Thus, "a piece of wood" in the real world can become a "child" in the play world.

The perplexing philosophical problem for Fink is that this distinction between reality and illusion is repeated on several levels even within the game world:

> "…in our imagination we comprehend these objects themselves as 'real objects,' an[d] that within this world the dichotomy of reality and illusion can even occur on various levels" (Fink 1968, 24).

In this regard, Fink aligns with Luhmann in postulating the simultaneous existence of two realities when playing.

It seems that there is an observer problem here, due to which the nature of this double structure of play depends on the distinction with which the observer operates (observer is here meant in the sense in which it is used in Luhmannian system theory, and can, for instance, occur in the person of a researcher, a player or a bystander). From a first-person

perspective (Leino 2010), the player might be able to distinguish between "reality" and play. The particularity of this distinction then indicates her as a player of a specific game. When the player's intentionality is directed to the play world, the play world will appear as real – that is, as "reality." However, a third-person observer will perhaps make a difference between the "imaginary" of the play world a player is part of and the reality she is part of, too, because she might approach the playing person with different demands. For instance, a person might want her partner to take out the trash. However, the partner might have made the trash part of her play world. According to Fink, "the play world contains both subjective imaginary elements and objective ontic elements" (Fink 1968, 27). The playing partner could consider the trash as trash but still be in a play world in which the demanding partner does not exist or does not have the capacity to talk.

Even within the play world, the distinction between "reality" and "imaginary" can be repeated. However, the play world might have its very own logic of "reality" and "imaginary" which is not necessarily derivable from a distinction between reality and illusion based on practical wisdom.

In both cases, one can recognize the postulation of a doubling of reality (Luhmann) or existence (Fink) as constitutive for play. Whereas Luhmann "only" considers the double structure as opposed to reality, Fink's frame of reference is existence. Firstly, what both approaches have in common with concepts of metaphor is the dual structure which can be easily turned into a triadic structure. The triadic structure consists of the two realities in Luhmann and Fink plus the unity of this difference. Play thus consists of that which positively defines play (one side of the distinction made by rules or mimicry) as well as that which it exactly is not (the other side of the distinction which excludes elements from play); finally, the third element is the distinction itself (the rules or the as if) which accounts for what actions are part of play and which are not.

In terms of metaphor theory, this seems to be close to the distinction of literal speech versus metaphorical speech or other kinds of expressions, which has itself been turned into a philosophical question of literal truth versus metaphorical truth. As such, metaphor is often considered as literally false while being merely metaphorically true, which aligns with the view of play as non-serious or fictional as opposed to the seriousness of everyday life. However, like Luhmann and Fink, who both allow for a double structure of play in terms of a real reality

and a second reality, Paul Ricœur suggests, with Douglas Berggren, considering metaphor as consisting of literal truth and metaphorical truth - as opposed to literal falsity and a metaphorical truth (Ricœur 2003, 301). Similarly to the dual structure of the game in Luhmann, the process of understanding a metaphor is marked by this "tension" between a literal truth and a metaphorical truth. This is also the thought from which Ricœur develops his view on metaphor-as-a-paradox (see 2.3.2).

3.4 The triangle of metaphor, representation, and play

The first three sections of this chapter were concerned with the treatment of play as separate from real life or culture, play as representation, and play as a dual structure: all of which suggest a general parallel between play and metaphor. In the following, however, I will show and discuss the observation that play and metaphor are part of a triangle of terms which is completed by the notion of representation. I will argue that the most striking structural similarity between play, metaphor, and representation is the paradox, which suggests that there is something like a primordial connection between these three terms, and which, furthermore, sheds some light onto the popularity of the term metaphor with regard to games and play.

When trying to relate the notions of metaphor and play/games with the help of literature on the latter, one stumbles almost inevitably upon the triangle of notions (play/game, metaphor, and representation) which seem to be deeply interrelated. The interrelation of these notions becomes obvious once we note the frequency with which they are used to explain one another. Notions of:

- play/games are used to explain metaphor (e.g. metaphor is the play of language) and representation (e.g. paradoxical representations are called playful),

- metaphor is used to explain representation and aspects of play, and

- representation is used to explain metaphor and play.

Furthermore, these three notions seem to share a structural similarity in that all three notions exemplify what Luhmann calls the unity of the difference (Luhmann 1995). Consequently, they are explained with related principles, such as Wittgenstein's "seeing-as" (Wittgenstein

1958, 194) which in turn is exemplified by Joseph Jastrow's duck-rabbit (Müller 2008, 24) and the figure-ground principle as proposed by gestalt psychology (Müller 2008, 24), as well as the principle of multistability suggested by post-phenomenologist Don Ihde (2012). To this list, we can also add the map-territory question originally coined by Alfred Korzybski (1931) and also described by Jorge Luis Borges (in Jean Baudrillard 1994) and applied by Gregory Bateson (2000).

My hypothesis is: this is possible because all three notions – metaphor, play and representation – are independently explained as paradoxes or with paradoxical figures, in the same way as the above-mentioned principles.

In the following, I will thus show that play and representation have independently been considered inherently paradoxical, constructing my argument in the light of Bateson's approach to play and with a reference to René Magritte's painting "La trahison des image (Ceci n'est pas une pipe)" (Magritte 1929). For the case of metaphor, I have already shown (see 2.3.2) that it is understood as a paradox, especially by Paul Ricœur (Ricœur 2003a; see also Rolf 2005).

3.4.1 Play as a paradox

Gregory Bateson is the representative of a theory of play as a paradox. His theory provides an important point of access to the relation of play and metaphor, primarily because Bateson understands play[35] as a paradox. In his famous essay "A Theory of Play and Fantasy" (Bateson 2000 [1954]) Bateson describes play as a specific model of metacommunication which is defined by an intrinsic paradox. In other words, the introduction of the idea of metacommunication serves the purpose of dealing with the inherent paradox of play.

Bateson describes the paradox of play through his iconic example resulting from his observing two monkeys playing in the zoo: "the playful nip denotes the bite, but does not denote what would be denoted by the bite" (Bateson 2000, 180). Consequently, an activity identified as

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[35] For now I use the notion of play synonymously for play and game, although I acknowledge that there is an important difference to be made. The reader may rest assured that it will be tackled in a later section of this chapter. The distinction can roughly be defined as games as objects (game) versus games as process (play).

play can equally be interpreted as play and not play. For Bateson, every play signal contains the paradox that it is play and simultaneously not play. In his example, the playful nip is a bite and not a bite at the same time, which poses the paradox that it is simultaneously what it is and not what it is. Bateson, however, invents a useful tool to deal with this – the metacommunicative frame[36]. This frame has multiple functions:

1. It is *inclusive*, as it includes a number of messages, all of which all are part of play.

2. It is simultaneously *exclusive,* as it automatically excludes all other messages which are not included.

3. The frame relates to premises which define the elements which are included and excluded.

4. The metacommunicative element of the frame is exemplified by "any message, which either explicitly or implicitly defines a frame" (Bateson 2000, 188). One such message is "this is play" (Bateson 2000, 190).

5. This implies that "every metacommunicative or metalinguistic message defines, either explicitly or implicitly, the set of messages about which it communicates" (Bateson 2000, 188).

6. Finally, Bateson uses the figure-ground principle from the field of gestalt psychology as an analog model. As such, the metacommunicative frame makes a number of messages the figure, standing out only by distinction from all the unchosen messages, which, all together, form the ground.

In addition to the figure-ground principle, Bateson illustrates his findings with an idealtypical schizophrenic's lacking capacity to understand metaphor. Accordingly, the schizophrenic is not be able to dissolve the paradox as posed by metaphor, since understanding metaphor involves the same problem as understanding play. Recall that Fink also used the schizophrenic as a model to make his point, (Fink 1968, 23). In turn, we have seen in section 2.3 that Max Black calls one structural element of metaphor the frame (the secondary subject) in whose light the focus (the primary subject) is seen.

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[36] Bateson's insights are the reason why Goffman's frame theory is so popular among game scholars – see its usage by, for instance, Fine (2002 [1983]), Linderoth (2005), Stenros (2012), and Waern (2012).

The links between Bateson's model of play and metaphor theory do not stop there. Just as Müller considers metaphor an essentially triadic structure, Bateson also regards play as a triadic structure, as becomes apparent through the figure-ground principle that he defines as being characteristic of the play frame. Furthermore, Bateson classifies three different kinds of signs involved in play, which are comparable to the Peircean triadic sign structure (signs of firstness, secondness, and thirdness) (De Souza 2005, 46–48; D. Anderson 1984):

1. Mood-signs are pure signs and denote only the sign (representamen) or firsts in Peircean terminology. A bite is a bite.

2. "Messages which simulate mood-signs" (Bateson 2000, 189) or so-called seconds in Peircean terminology. These are signs which relate to other signs or objects. A nip is a bite.

3. "Messages which enable the receiver to discriminate between mood-signs and those other signs which resemble them" (Bateson 2000, 189). Such signs would be so-called thirds in Peircean terminology. They address the relation between the firsts and seconds. A nip is a bite and not a bite.

The schizophrenic is not capable of understanding metaphors, which are signs of the third kind (D. Anderson 1984, 456). In order to understand metaphor as metaphor, one needs to be capable of recognizing an implied meta-message, which, in analogy to "this is play" would be "this is metaphor." In terms of my last example from section 2.3.2, one can say that only by recognizing the paradox that my friend is obviously not an elephant, although she is an elephant in a metaphorical sense, can I deal with this paradox.

The question which emerges from these observations is: did Bateson really define play with his essay, or did he rather describe a problem of communication occurring in everyday life and just applied it to play? The problem he describes seems to be the problem of a misunderstanding or misinterpretation. Many misunderstandings in everyday life occur because of a mismatch in the understanding of one and the same situation by two different (inter-)actors. This is why metacommunication is necessary in the first place.

However, Bateson's point here is that metacommunication is integral to both therapy and play. As such, one does not only communicate in therapy, but one also communicates how to communicate in therapy. In terms of a system-theoretical observer (Luhmann 2000, 4; see also

Moeller 2006, 222) one can say that one oscillates constantly between an observation of a first and of a second order. First-order observation simply means performing a distinction between included and excluded elements. The second-order observation then addresses the mechanism of this distinction. What counts for therapy, then, obviously also counts for play. We do not only play, but we can also negotiate what is and is not part of play at any time (e.g. special house rules). Since Luhmann's system theory has been inspired by cybernetic thinkers, such as Heinz von Foerster, George Spence-Brown and Gregory Bateson, the latter's thoughts also connect to Luhmann's notion of play as duplication (Verdopplung) of reality (see section 3.3), in that first-order observation in play is to perform a distinction between two realities and the second-order observation allows us to address this very distinction and communicate about it. From the perspective of metacommunication or second-order observation, one can say that metaphor and play both contain an element of self-reference, making them both strategies of dealing with the paradox involved.

Another thinker of play as a paradox is Brian Sutton-Smith, whose book *The Ambiguity of Play* (1997) is admittedly inspired by authors such as Mihail Spariosu, Victor Witter Turner, and Bateson[37]. He begins his book with the observation that our theoretical knowledge about play is characterized by ambiguity caused by the "diversity of play forms and experiences" (Sutton-Smith 1997, 3). This diversity is similar to the ubiquity of play suggested by Huizinga (1998) and Caillois (2001).[38]

Spariosu terms play "amphibolous" (Spariosu 1989, 2; quoted in Sutton-Smith 1997, 1). According to Sutton-Smith, this "means it [play] goes in two directions at once and is not

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[37] Sutton-Smith erroneously calls him "Geoffrey" (Sutton-Smith 1997, 1).

[38] It contains performance play, different kinds of contests and sports, festivals, as well as informal social play and many more (Sutton-Smith 1997, 4–5). Consequently, there is also a "diversity of players, play agencies, and play scenarios" (Sutton-Smith 1997, 5). The diversity of players contains players of all kinds of genders (though Sutton-Smith only distinguishes between male and female), age, there are gamesters, sports players, playful people even in academia and literature (Sutton-Smith 1997, 5–6). The diversity of things which "can become an agency for some kind of play" covers practically all physical and non-physical objects one can imagine, including those one cannot imagine. In a similar fashion, the number of places where play can happen is huge and covers a range from playpens to stadiums. Play is thus temporally and spatially diverse (Sutton-Smith 1997, 6). Obviously, play is not limited to physical space, but can also take place in mental spaces. Even "play scholarship" (Sutton-Smith 1997, 6) is equally diverse, since researchers from different disciplines or discourses (explain) observe the above-mentioned play forms, playthings and play spaces with different research interests and methods. Consequently, as Sutton-Smith points out, they all apply specific rhetorics.

clear" (Sutton-Smith 1997, 1). For Turner, play is "liminal,"[39] that is, it describes a state in between two other states, or, as Sutton-Smith terms it, "it [play] occupies a threshold between reality and unreality, as if, for example, it were on the beach between the land and the sea" (Sutton-Smith 1997, 1).[40] The implied paradox of such a liminal phase is exemplified, for instance, in Britney Spears' song title "I'm Not a Girl, Not Yet a Woman" (Spears 2002). Bateson, as we know, famously described play as the paradox of simultaneously being and not being what it seems to be. In his introduction, Sutton-Smith also refers to William Empson's *Seven Types of Ambiguity* (Empson 1949), which distinguish between ambiguities of reference, of the referent, of intent, of sense, of transition, of contradiction, of meaning (Sutton-Smith 1997, 2).

In this regard, even Sutton-Smith's rhetorics of play, themselves stemming from the diversity of "play scholarship" (Sutton-Smith 1997, 6), are characterized by implicit paradoxes/ambiguities: even if each rhetoric is named after one side of its respective paradox, it is only understood as delimited from something else. The rhetoric of play as progress contains its opposite, which could be called stagnancy or even regress. Consequently, the idea of progress is only thinkable if there is something that progress is delimited from. The same goes for the rhetoric of power. which contains the paradox of strength and weakness, or winning and losing – one's power is another one's weakness. Play as identity contains the paradox of identity and difference, as can be seen in different forms of rites and festivities. In the same way, play as the imaginary oscillates between the imaginary and the real, and play as the self swings between self and other. Finally, play as frivolity is characterized by its distinction from seriousness.

3.4.2 Representation as a paradox

In section 3.2, one could see already see that play is characteristically considered representational by Caillois and Huizinga, which, in itself, points to an inherent relationship

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[39] Liminality is a concept from Arnold van Gennep which Turner developed further (Turner 1977, 166).

[40] Victor Turner is known for having studied the structure of rites of passage. He describes the void between two different societal statuses as the liminal phase, a term borrowed from Gennep (Turner 1977, 94).

between the idea of representation and play. In addition to that, and in line with the last section, representation can itself also be understood in terms of a paradox.

In art and art theory, the concept of representation has been described as a paradox, for which René Magritte's painting "La trahison des images" from 1929 is one iconic example (Magritte 1929). The painting shows a pipe, beneath which is written the sentence "Ceci n'est pas une pipe" ("This is not a pipe"). As one can see from a copy of the painting in the online catalogue of the Los Angeles County Museum of Art (LACMA), the sentence in the painting states correctly that the painting is not a pipe – it is a painting. Nevertheless one can see a pipe in the image, which indicates that the text "'This is a pipe'" (LACMA) would equally be correct if we consider the painting as the representation of a pipe. As such, this painting exemplifies a "paradox out of the conventional notion that objects correspond to words and images" (LACMA). Obviously, this paradox is also used to exemplify the paradox of representation as such, i.e. representation always consists of the problem that something represents something else although it is not what it represents at the same time. In fact, this paradox is constitutive of representation.

3.5 The interrelation of metaphor, play, and representation

So far, I have shown that metaphor, play, and representation have all been conceptualized as paradoxes. In particular, Bateson's essay on play makes use of the paradox of metaphor as well as the paradox of representation in order to explain play. This is demonstrated by the fact that Bateson uses the understanding/misunderstanding of metaphor to exemplify his point.

To be clear, the point to be made here is not to say that metaphor, play and representation are completely congruent. Instead, one can see their relation in terms of a Venn diagram (Figure 1) in which play, representation and metaphor all form separate but overlapping circles with their implied paradox in the center.
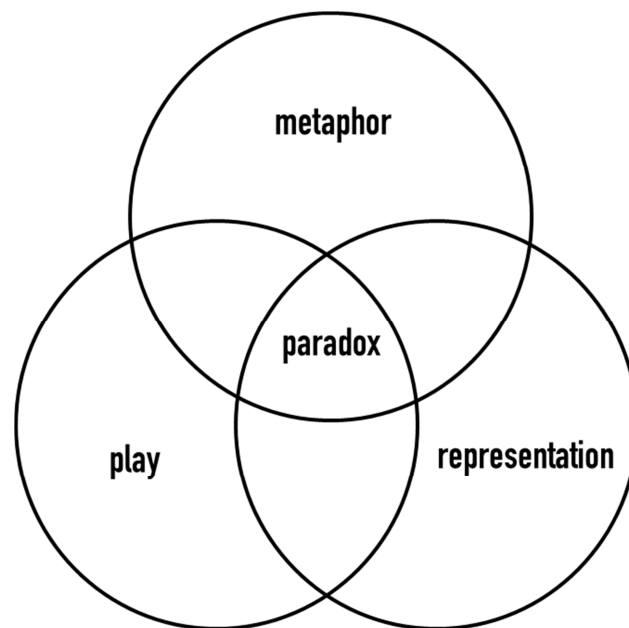
Figure 1: The interplay of play, metaphor, and representation as a Venn diagram.

Apart from the independent conceptualization of play, metaphor and representation as a paradox, in other approaches these three terms are related to each other to such a degree that it becomes increasingly difficult to understand if the authors (Gombrich, Fink, Walton, Bateson) are really speaking about play when conceptualizing it with a model of representation or the other way around. The critical reader of these approaches might become confused about which in these approaches is the explanans and which is the explanandum, or which is the epistemic thing and which the technical object (Rheinberger 1997).

In the following, I will introduce some approaches in which the three central terms in question have been used to conceptualize and to exemplify each other.

3.5.1 Gombrich's hobby horse

Art historian and theorist Ernst Gombrich discusses the status of a hobby horse as a representation of a horse based on the substitution of function (as opposed to imitation based on the likeness of external form) (Gombrich 1963a, 1). In the course of his considerations, Gombrich comes to think that a simple stick qualifies "as a horse because one could ride on it" (Gombrich 1963a, 4) although it clearly lacks sufficient similarity with a horse. Its ridability is the function which makes it count as a horse and thus a suitable substitute rather than its

dissimilar shape. In his subsequent article from the same essay collection, Gombrich makes explicit what the reader of this paper might already guess – even a hobby horse whose external form might be much more reminiscent of a horse than a broomstick is considered "the equivalent of a 'real' horse because it can (metaphorically) be ridden" (Gombrich 1963b, 14).

However, not only did Gombrich suggest metaphor as the concept to frame his observation, he also uses the terminology of metaphor theory – specifically, the notion of substitution. In addition, Gombrich describes the ridability as the "tertium comparationis" between a simple broomstick and a horse accounting for its substitutability (Gombrich 1963a, 4). The notion "tertium comparationis" refers to the comparison view on metaphor (see e.g. Kurz 2004, 22) and its triadic structure.

Furthermore, Gombrich observes that the stick "served as a focus for his [the player's, S.M.] fantasies as he gallops along" (Gombrich 1963a, 5). According to Max Black's interaction view of metaphor, a metaphor is context-dependent (Black 1954) such that it consists of "the metaphorical statement's focus (the word or words used non-literally) and the surrounding literal frame" (Black 1993, 27). In the light of Black's metaphor theory, Gombrich's broomstick is the focus, as he identifies it himself, which is surrounded by the frame of the horse fantasy making the broomstick a horse. As such, the broomstick is used non-literally within the context of the horse fantasy.

Gombrich's considerations show how the three concepts of play, representation and metaphor mesh in the same observed setting. Firstly, the three characteristics – substitution, tertium comparationis and a contextual focus – each represent one of the major views on metaphor as suggested by Black: the substitution theory, comparison theory, and interaction theory of metaphor (Black 1954). It is thus likely that some sort of metaphor is at play here. Secondly, we deal with a play setting which implies the Batesonian paradox of play that we can derive from Scheffler's observation: "in galloping the broom stick, the child's fantasy is of himself as riding a horse, not a stick, even though he knows he is straddling a stick, not a horse" (Scheffler 1992, 213). Obviously, the paradox consists of the child riding a horse and not a horse at the same time. Thirdly, this illustrates the paradox of representation as expressed by Scheffler: "if the broom stick is not a horse, how is it that the child in play calls it a horse?" (Scheffler 1992, 213).

To sum up: Gombrich's approach consists of the paradox of representation which is caused by the paradox of play and is solved with the notion of metaphor. The object of study is here the problem of representation in the arts; as an example, he uses a situation of play, and, as a concept to grasp the problem, he uses a notion of metaphor.

3.5.2 Walton's make-believe

While Caillois considers make-believe an essential element of games, especially of mimicry games, Kendall Walton describes make-believe as a game in itself. In his paper "Metaphor and Prop Oriented Make-Believe" (1993), Walton investigates the role of metaphor in so-called prop-oriented games of make-believe. As props in Walton's understanding, we can count dolls and hobby horses as well as novels and paintings (Walton 1993, 65). Prop-oriented make-believe, which is focused on the understanding of objects (props), is here distinguished from content-oriented make-believe, in which certain objects (props) contribute to make-believe (Walton 1993, 65). Yet, make-believe does not only refer to things which can be called fictional in that they ontologically do not exist and require a certain belief in their existence, but also to things which are simply not present at the place and time of make-believe. From the introduction of Walton's book *Mimesis as Make-Believe,* one can learn that he uses the notion of make-believe as a substitute for the much broader notion of representation (Walton 1990, 4).

In content-oriented make-believe, objects of different kinds are used to understand the "content of the make-believe, in the fictional world" whereas prop-oriented make-believe focuses in a better understanding of the objects in question (Walton 1993, 65).

As opposed to Scheffler's reading of Gombrich, Walton regards hobby horses and "paper airplanes" as props contributing to acts of make-believe, such as, for instance, imagining the act of riding on a horse, or "flying through the air, climbing, diving, landing on a runway, crashing" (Walton 1993, 66). In line with Bateson and Fink, hobby horses and paper planes here are horses and planes in the world (or the semantics) of make-believe, and are not-horses and not-planes in the real world – and thus, paradoxical objects.

Obviously, these objects can also be operated for their own sake in order to enjoy their individual qualities. One could, for example, throw a paper plane and simply enjoy its quality

of flight. But "there is [...] a point in calling the paper constructions airplanes and the plastic disks flying saucers" (Walton 1993, 66). This is the case when make-believe is applied to better understand the objects in question.

Walton offers two diametrically opposed perspectives on this example of the flying disk/saucer. On the one hand, the flying disk can be a prop which contributes to a content-oriented make-believe, such as an alien invasion story. On the other hand, calling the disk a flying saucer makes us see the object in a different light, too. The latter suggests that the expression "flying saucer" is a metaphor pointing at a specific quality of the flying disk. The flying disk then is a tool to imagine how flying saucers could operate.

By making metaphor a focal point of prop-oriented make-believe, Walton emphasizes the cognitive function of metaphor. Using metaphor intentionally, one can provide a specific perspective on how a thing can be seen and understood. "[...] the make-believe may be of no particular interest in itself; it may serve merely to clarify or illuminate the props" (Walton 1993, 69).

However, Walton even goes so far to say that metaphor - instead of merely playing a role in some game of make-believe – is itself a game of make believe. Explaining Lakoff and Johnson's iconic example of a conceptual metaphor, ARGUMENT IS WAR, Walton describes ARGUMENT as the prop part (the center of the cognitive interest) and WAR as the make-believe, and thus "a device for describing or understanding the argument" (Walton 1993, 73).

Finally, Walton gives the formula of metaphor different names within his own theory of make-believe. Walton calls the target domain/the focus/the tenor the "prop", and the source domain/the frame/the vehicle "make-believe".

In Walton's case, it is interesting that he calls metaphor a game of make-believe and hence combines the notions of play/game, metaphor, and representation again in a different way compared to Fink and Gombrich, as the following section will make even more apparent. However, it remains questionable if he is merely speaking of metaphor in different terms.

3.5.3 Fink's ontic illusion

As has already been shown, Fink's approach towards an ontology of play can be termed an "existential, metaphorical and ontological view of games, as centered on themselves, with no apparent external purpose, but also serving as a metaphor of the ways in which reality is 'played' within culture" (Slethaug 1993, 68). With his approach, Fink attributes to games a metaphoric relationship to the world which they are simultaneously always already part of. Yet, play does not simply represent the world – simultaneously, it is also a part of the world; hence, it should not be "falsely juxtapose[d] [...] with other existential phenomena" (Fink 1968, 22). This notion of play is close to the idea of play as a paradox as described by Bateson. Play is paradox because it always already represents the world by being a part of the world. This in turn means that the rules and regularities of the world are repeated in play. In Fink's words, "each game is [thus] an attempt at existence" (Fink 1968, 22).

In this line of existential thought, Fink refers to the basic dual structure of play (as already introduced in 3.3) and suggests that the dual structure at play is of the nature of a synecdochic part-for-whole relationship. Synecdoche belongs to a broad notion of metaphor (Nöth 1995a).

Eventually, Fink acknowledges the fact that one side of his double structure is often termed "illusion" or "the imaginary" (Fink 1968, 22). Furthermore, he acknowledges that the "concept of 'illusion' is as obscure and unexplored as the concept of Being - and both concepts belong together in a confusing, inexplicable, even labyrinthine way, they overlap and interact" (Fink 1968, 22).

Interestingly, Fink explains the ontic illusion of play with the model of the mirror image of a tree reflected by water (Fink 1968, 22). The mirror image contains three forms of Being. Firstly, the image as a reflection is considered to be real. Secondly, "the tree is also represented in the image," which implies that, though the representation is real, the reflected tree is in a sense unreal (Fink 1968, 22). As a third step, he mentions the fact that the surface of the water is the medium for the reflection, and thus real. Fink repeats here the paradox of representation as demonstrated by Magritte's famous painting, such that, in the mirror image, the tree is a tree (qua representation) and is not a tree since it is only a reflection. However, Fink himself also refers to Plato's cave allegory and:

"the entire Platonic ontology, which has determined western philosophy to such a high degree, [and which] operates continually with the concept of the copy as a shadow and a reflection to interpret the structure of the world" (Fink 1968, 22).

Summing up Fink's thoughts, play is the object of investigation; it is understood through the concept of metaphor and exemplified by the mirror image or ontic illusion as Fink calls it. The mirror image is, again, a typical model for the idea of representation.

3.5.4 Concluding remarks on Bateson's, Gombrich's, Walton's, and Fink's observations

It is striking and confusing that these three notions are so closely related. However, what does this tell us about the relation of these three concepts?

It seems to be no coincidence that models of play, metaphor, and representation are mutually referential. This observation raises the question of whether the object of investigation meshes with the concept of explanation so much that it in turn leads to the question of which of the concepts was the object of investigation in the first place.

Regarding Bateson, we can say that he uses a model of representation/communication to explain what play is and exemplifies it with (a misunderstanding of) metaphor. Simultaneously, this nourishes the suspicion of what he is really speaking about. The model he uses to understand one thing might actually be the real object of his analysis. The same goes for the other authors. Considering Gombrich, we can say that he investigates the notion of representation, uses a play situation as an example and the concept of metaphor to grasp it. In the case of Walton, we can say that – at least when referring to metaphor as a game of make-believe – he investigates the notion of metaphor and calls it a game of make-believe, since to him both notions, game and make-believe, are intertwined. Finally, Fink explains the notion of play, similarly to Bateson, as a metaphor, and uses the paradox of representation to illustrate it.

	Object of investigation	Concept	Example
Bateson	Play	Representation	Metaphor (misunderstanding)
Gombrich	Representation	Metaphor	Play (hobby horse)
Walton	Metaphor	Representation / Game	Game / Representation
Fink	Play	Metaphor	Representation (mirror image)

Table 1: The use of the terms metaphor, representation, and play in the literature.

This leads us back to Johan Huizinga, whose own discussion of metaphor in the language of play and games reveals, through the paradox implied, that his own ontology of play lacks a distinction between game and play.

3.6 Huizinga's paradox of play – a framing problem

In game studies, the frame theory developed by Erving Goffman is very prominent (see e.g. Fine 2002; Linderoth 2005; Stenros 2012; Waern 2012). This is especially the case when it comes to questions of the delimitation of games and play from things which are non-play and non-games, when concepts like the magic circle are brought up. This is anything but surprising, since Goffman's social frame theory is itself deeply indebted to Bateson's theory of metacommunication (Pias 2007, 208). Seen from a slightly more rational perspective, the magic circle was just another model among many (like figure-ground) to mark the separateness of play from non-play elements in the immediate environment of play. In fact, Huizinga's own framing problem becomes obvious in his discussion of "the play-concept as expressed in language" (Huizinga 1998, 28), where he assesses the relationship between play and contest as it is represented by play metaphors in the language of war. This small

discussion demonstrates the implied paradox in Huizinga's own ontology of play, which has been criticized by Jacques Ehrmann (1968).

With the help of Bateson's theory, this problem seems to be graspable. In the following, I will thus demonstrate Huizinga's argument and relate it to the paradox implied in metaphor as well as in Bateson's play concept.

In the aforementioned section of *Homo Ludens,* Huizinga makes a significant observation on metaphor and play which turns his consideration of metaphor in relation to play into an ontological question of how play is actually thinkable.

Huizinga remarks that,"in all Germanic languages and in many others besides, play-terms are regularly applied to armed strife as well" (Huizinga 1998, 40). This can be seen, for instance, in poetry (another form of play) in which the expressions for "armed strife, or battle" are named "battle-play" or "spear-play" (Huizinga 1998, 40). Later, he notes that, "ever since words existed for fighting and playing, men have been wont to call war a game" (Huizinga 1998, 89).

When analyzing metaphors in the language used by football commentators on radio and television in their description of an ongoing match to listeners and viewers, I observed that it is mostly notions from the domain of WAR that are used to describe elements of the domain of FOOTBALL (or play) (2007). Interestingly, Huizinga sees the relation the other way around. In Huizinga's case, play terms are applied to phenomena of war. In my analysis, terms from the war sphere are applied to notions of play.

Huizinga initially identifies these expressions without hesitation as "poetic metaphors, a fully conscious transfer of the play-concept to the battle-concept" (Huizinga 1998, 40), only to conclude the opposite a couple of sentences later: "the application of the word 'play' to battle can hardly be called a conscious metaphor. Play is battle and battle is play" (Huizinga 1998, 41).

The first paradox which Huizinga comes across here is that play is and is not a metaphor for the battle concept. This is the paradox of metaphor as described by Ricœur. But this paradox also points to a second paradox implied in Huizinga's concept of play, which can be understood by means of a recouse to Bateson. Let me briefly analyze what Huizinga is actually doing:

Huizinga's argument as to why play and battle cannot have a metaphoric relationship is that play and battle, in his view, were not distinguished in idealtypical archaic cultures (Huizinga 1998, 41–42). Following Huizinga, play and battle were originally part of the same semantic and practical domain. Apparently, this second paradox depends on the ontological question of whether play and battle belong to the same domain or should be distinguished.

Huizinga's definition of play suggests in both versions that play is separated from everyday life and takes place "within its own proper boundaries of time and space" and is "'different' from everyday life" (Huizinga 1998, 13, 28). On the other hand, Huizinga stresses that play is part of everyday culture as well, since it appears in the form of competition (agon) in such domains as economy, law and poetry. Jacques Ehrmann criticizes Huizinga's and Caillois' dialectic concept of play as something which is distinguished from something else and is simultaneously defined by this distinction, through oppositions such as "play and seriousness [...] gratuitousness and/or utility; play and/or work; play and/or everyday life; the imaginary and/or the real" (Ehrmann 1968, 32). However, this clearly shows the paradox which Huizinga did, at least, not make explicit (if he was aware of it at all). If play in the form of competition is an element of law and economy, how can it then not be an element of the everyday culture and seriousness, since law and economy are part of this everyday culture? As such, Ehrmann criticizes:

> "Huizinga's interpretation of the potlatch [...] as ennobling play remains partial and erroneous insofar as the author refuses to see that the potlatch is also the ritualization of an economy and even of political exchange" (Ehrmann 1968, 43).

The potlatch, thus, is simultaneously an exemplification of Huizinga's distinction (see 3.2) between play as the *contest* for something and play as the *representation* of something. The potlatch is a representation of political and economic exchange by *being* the political and economic exchange of the indigenous tribes practicing it. Thus, the potlatch is that which it is distinguished from (political and economic exchange) and which it simultaneously represents. Can then the potlatch metaphorically represent economical exchange?

3.6.1 The paradox of game and play

One reason for Huizinga's paradox is the missing distinction between game and play. Let us assume Huizinga actually means two different things when using the word play – namely play (games as processes) and games (as objects) (see 1.1).

With reference to Salen and Zimmerman, games can either be regarded as an element of play or play can be seen as an element of games (Frasca 2007, 39). The problem is, according to Frasca, tha,t in the first case, "game is understood as an activity" whereas, in the second case, game is "understood as an object" (Frasca 2007, 40). Apart from Frasca, a number of other scholars have pointed at the difference between games as an ongoing process (games which are played) and games as objects or fixed structures (Aarseth 2001b; 2011; Juul 2005, 43–45; Malaby 2007; Frasca 2007; T. L. Taylor 2009; Calleja 2011).

It seems to be a matter of emphasis: when games are primarily seen as objects, "we frame them [games] as a system with different elements (rules, objects such as tokens, a particular space such as the play field and the play time). In such a case, play is considered to be the fuel that keeps the system working" (Frasca 2007, 40). In this quote, the word 'game' stands for the game as an object, and the word 'play' for the game as a process. Furthermore, one can think of culturally acknowledged games as deparadoxified former paradoxes: e.g. Caillois (2001) suggests that children's play starts out in the wild fashion of paidia and becomes more ludic thanks to a stabilization of structures over time. Whereas, in the first case, it is difficult to identify what a player is playing, in the latter case it is easier because it is more strictly defined.

When regarded as objects, games are similar to other cultural institutions, in that they consist of specific more-or-less stable structures (or rules) which define the elements that are part of the game and those which are not. Consequently, the rules of games account for the distinction game/not-game, which is again another instantiation of the unity-of-the-difference principle. Particular games can thus be regarded on the same level as particular instances of warfare, theater, law, economy and other cultural institutions, with their own rules and regulations. Obviously, these institutions do interfere, but they are still distinguishable from each other. Formally, they can all be termed systems, including specific objects or tokens, a particular space and time etc. (Frasca 2007, 40; Salen and Zimmerman 2004, 49–55). As such, a concrete game object, such as *Ludo*, *Carcassonne* (Wrede 2000) or basketball, is formally

definable in the same way as any other cultural institution, such as a court trial occurring within the legal system. In this regard, Ehrmann rightly says that "play [...] [and] culture are synonymous and interchangeable" (Ehrmann 1968, 56) (in Huizinga's and in Caillois' play theory) assuming again that play is here actually understood in the sense of game as object and culture implies specific cultural institutions.

Thus, if we distinguish, not between play and not-play forms, but, instead, between cultural institutions, both football and war form different domains of action and meaning. This is why we can understand football in terms of war and consider their relation metaphoric, since football (or games) and war have become different cultural and conceptual domains. Consequently, football is and is not war. If Huizinga had spoken of particular games, he might have considered using notions of the one domain to name elements of the other domain as metaphoric.

If we emphasize play as process, as that which is going on during the execution of a game, we can also support Huizinga's idea that play can be an element of many cultural domains beyond games, like theater, law, poetry etc. Making play a sort of metacommunication, Bateson implies that it is an element of play that it can address elements of the game and even change it if necessary. Consequently, play not only describes the processual part of a game, but also allows us to address the distinction defining what is and is not part of the game, and even allows us to modify this assignation.

This obviously implies that both warfare and football can and do contain play elements, even though these might be secondary or hidden in differentiated cultures or societies, according to Huizinga (1998, 46–47, 75). From the perspective of Huizinga's initial discussion of metaphor, one can now argue that agon is not only an essential element of play, but also of the particular games which are structured in a competitive manner. Agon is part of the structure of both competitive game objects and warfare. Now we can say agon is both – the essential play element and the element of warfare – working as the common ground on which a metaphoric relationship between games and warfare becomes thinkable in the first place.

From the perspective of metaphor, the play element and the element of agon form the "common characteristics" or the "ground" (Richards 2001, 78) of a metaphor. Understanding play not only as the processual aspect of games at play, but in the Batesonian sense, play and agon are then the mediating third (Müller 2008, 32) making possible the metaphoric overlap

between war and concrete games such as football, chess, etc., on the basis that agon is an element of play and play is contained in games as well as other cultural systems like warfare, law and so on. All other domains which Huizinga analyzes contain an element of agon and therefore an element of play.

With his metaphor/non-metaphor paradox for the case of battle and play, Huizinga unintentionally shows that metaphor requires an initial distinction of two domains in the first place before it can become the paradoxical unity of a difference associating two distinct domains with each other. Consequently, we can say play is and is not a metaphor for battle.

3.7 The equiprimordiality of play, representation, and metaphor

If we follow Huizinga further, we can say that metaphor, representation, and play have the same origin, namely the moment when men started to make and name differences between things, such as between battle and play. With Huizinga, one can imagine an idealtypical situation of the archaic human before any differences were drawn (something like a time before man had any consciousness). Everything was the same: battle, play, life, culture etc. – we can say, pure praxis and no concepts.

At some moment, however, distinctions started to be made and named. They happened not only to experience an everyday struggle for life (battle) but happened to understand situations as different from each other (e.g. battle training is different from battle).[41] These situations started to be considered as so different that they could not bear the same name any more. It would have been paradoxical to call a battle to the death and a training battle the same. The paradox required that these situations be given different names. They were thus called battle and training-battle. However, these distinctions remained paradoxical. A training-battle is obviously still some kind of battle, but also not the same kind of battle. Only due to that moment when humanity started to make distinctions were the ideas of metaphor, representation and play made possible.

This also means that metaphor, play, and representation are equiprimordial conditions of Dasein, or of being human, in Heidegger's terms (Dreyfus 1991, 166; Heidegger 2008), since

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[41] Actually, they could understand the experience of the struggle of everyday life only because of that distinction; otherwise they would have had nothing to compare it to.

they have the same origin in the capacity of humanity to make distinctions and thereby create paradoxes, to address these distinctions and to overcome these distinctions again or to deparadoxify these paradoxes by creating new paradoxes on a higher order of observation.[42]

But human beings are always already thrown into a world, according to Heidegger, where these distinctions as well as the capacity to make distinctions always already exist. Thus, the introductory paragraph of this section has to be considered a thought experiment, helping us to understand the relation between metaphor, representation and play from a formalist and difference-theoretical point of view.

Making these distinctions on a first-order level and referring to the distinction itself on the level of second-order is so essential for human existence that even non-human or human-like primates can make them. At least, this is suggested by Bateson, who observed metacommunication in the zoo among playing monkeys (Bateson 2000, 179)[43]. However, it is also possible that Bateson himself imposed this kind of distinction-making on the primate's play, and therefore projected a human capacity onto human-like animals.

This has several consequences. Firstly, it implies that play is semantically always both battle and not-battle, and vice-versa. As such, play is also always already serious and not serious, and so on. Secondly, the idea of the equiprimordiality of metaphor, representation, and play is supported by those who consider metaphor a ubiquitous mechanism of thought - which allows the argument that we live by metaphor (Lakoff and Johnson 2003) to be made by those who consider play to be the origin of culture (Huizinga 1998) – as well as by those who privilege representatio; the distinction between a representing kind of thing and a represented thing there is the condition of possibility for representation. As such, in the context of the philosophy of science, Hans-Jörg Rheinberger refers to Ian Hacking, who wrote in his book *Representing and Intervening* (Hacking 1983):

> "The first peculiarly human invention is representation. Once there is a practice of
> representing, a second-order concept follows in train. This is the concept of reality, a

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[42] In system-theoretical terms, the creation of categories (through distinctions) is a way of reducing the complexity of the world while producing new complexities on a higher order of observation (Luhmann 1995).

[43] Non-human play is e.g. researched by Marc Bekoff (2008) and Gordon M. Burghardt (2005).

concept which has content only when there are first-order representations" (Hacking 1983, 136 quoted in Rheinberger 2010, 81).

The praxis of representation is a distinction of first-order. This is the case, for instance, when a certain amount of money is assigned an equivalent value to certain goods, and thus represents these goods in a situation of economical exchange such as a market. Money is distinct from the goods it stands for, but it represents them in a certain respect. Performing a distinction is not necessarily the same as observing the performed distinction, i.e. doing something does not imply having a valid concept of what one is doing. This is what happens on the second-order level from which the performed distinction can be addressed verbally. As such, only a second-order observation of the praxis of representation can introduce another distinction, which then would be the one between representation and reality. Rheinberger notes that Hacking is here making an interesting anti-positivist claim. Hacking does not think representation from a perspective of reality, in which the relation of a representing thing would be judged by its "likeness" to the represented. Instead, it is only the praxis of representation that makes the concept of reality possible (Rheinberger 2010, 81). Thus, Hacking sees "the real as an attribute of representations" (Rheinberger 2010, 81). Consequently, one can assume that it was the praxis of battle-play as a distinction from, and, therefore, a potential representation of battle that made battle itself come into sight in the first place. As such, a semantic distinction can have an effect on an ontological distinction.

In a nutshell, one can say that instances of representation, metaphor, and play are only recognizable from an observation of second-order. Identifying the paradoxes implied in metaphor (my friend is an elephant and not an elephant), play (this is a bite and not a bite), and representation (this is a pipe and not a pipe) as instances of metaphor, play, and representation is an observation of second-order, too. However, whereas the understanding of metaphor and representation can simply work on the level of a performed first-order distinction, play always involves the simultaneity of first-order and second-order (self-)observation.

Without the text in the image, *La Trahison des Images* could easily be accepted as an image of a pipe. However, the included caption makes the image refer to the essential distinction of representations, and thus makes it metacommunicate about how it communicates. Hence, the painting triggers an observation of second-order, too, and can thus be considered playful.

The same goes for unusual or creative metaphors. The noun "shot" in football is easily recognized as a "shot-in-football" and not as a "shot-from-an-assault-rifle." Thus, it is a conventional metaphor whose metaphoricity (see Müller 2008) is not particularly recognized, but whose meaning is easily understood on the level of first-order observation. However, an unconventional metaphor such as "he spilled a bucket full of time over the wall" requires a second-order observation in order to make this nonsensical phrase acceptable in the first place.

The simultaneity of first- and second-order observation is why the duck-rabbit, the Necker-Cube, *La Trahison des Images* and similar examples are often used when it comes to exemplifying the peculiarity of representation, metaphor, or play.

3.8 The evolutionary model of representation, play, and metaphor

In the greater picture of cultural evolution, one can now confront Huizinga's claim that play would precede culture and be something like the driving force of cultural development (Huizinga 1998, 4). My opposing claim is that Huizinga is missing a notion of emergence as present in the form of autopoiesis[44] in Luhmann's system theory (Moeller 2006, 215) which accounts for the evolution of systems such as culture and an idea of an order from noise principle as proclaimed by cybernetician Heinz von Foerster (1960), who strongly influenced Luhmann's system theory. The German media philosopher Dieter Mersch also emphasizes the element of emergence with regard to play (see Mersch 2008). For Huizinga, play has this function within the evolution of culture, as I will show in the following.

In the chapter on "play and contest as civilizing functions," (Huizinga 1998, 46) one can get the impression that Huizinga's argument on the function of play in culture is based on similar assumptions to those underpinning Norbert Elias' work *Über den Prozess der Zivilisation* (1976). In the same way as Huizinga, Elias bases his assumptions on an idealtypical distinction between archaic and modern societies. As opposed to Huizinga, Elias speaks of societies, whereas Huizinga speaks of cultures. Nevertheless, Elias' claim is that archaic societies do not

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[44] Autopoiesis is a term proposed by the "evolutionary biologists Humberto Maturana and Francisco Varela" which plays a central role within Luhmann's system theory, in that it accounts for the "self-reproduction" (Moeller 2006, 215) of systems similar to the self-reproduction mechanisms in the realm of biology as e.g. in the process of cell division in which new cells emerge out of old ones.

have a monopoly of physical power (Gewaltmonopol); instead, everybody can impose power on others as they like. In archaic cultures, there is no security of life whatsoever – violence can happen at any time at any place. However, through differentiation, culture becomes more "civilized," and the execution of power over others is exclusively assigned to specific systems within civilized societies, such as the police and the legal system. In Elias' words, the execution of physical power has been monopolized. In a similar fashion, Huizinga distinguishes between idealtypical archaic cultures and modern cultures, yet he does so indirectly at times, as when, for instance, suggesting that "during the growth of a civilization the agonistic function attains its most beautiful form, as well as its most conspicuous, in the archaic phase" (Huizinga 1998, 75), or when explaining that play and battle are ultimately non-metaphoric because they were originally considered the same thing:

> "We have to feel our way into the archaic sphere of thought, where serious combat with weapons and all kinds of contests ranging from the most trifling games to bloody and mortal strife were comprised, together with play proper, in the single fundamental idea of a struggle with fate limited by certain rules" (Huizinga 1998, 40–41).

Huizinga clearly assigns play (in the form of agon) an essential function in the evolution of culture, which, however, becomes overlooked when play is (mis-)understood as a game (a cultural institution):

> "…a civilization becomes more complex, more variegated and more overladen, and as the technique of production and social life itself become more finely organized, the old cultural soil is gradually smothered under a rank layer of ideas, systems of thought and knowledge, doctrines, rules and regulations, moralities and conventions which have all lost touch with play. Civilization, we then say, has grown more serious; it assigns only a secondary place to playing" (Huizinga 1998, 75–76).

Unlike Elias, for whom violence (physical power) becomes monopolized in the civilizing process which is eventually assigned to specific cultural institutions (e.g. police, law system), Huizinga does not suggest that play is monopolized by certain cultural spheres, although it seems like this is the case. As I have tried to show (see section 3.6, especially 3.6.1), it is games that are monopolized to certain spheres in culture, but not play. The principle of play is still present all over culture, even when it is seemingly invisible. This is why Huizinga writes:

> "When speaking of the play-element in culture we do not mean [...] that civilization has arisen out of play by some evolutionary process, in the sense that something which was originally play passed into something which was no longer play and could henceforth be called culture" (Huizinga 1998, 46).

Instead, play is to be understood as the mechanism of cultural evolution which keeps on existing, even though it is understood as secondary because of a confounding of play and games.

With Roger Caillois, one can understand play as that element of emergence which is responsible for a transition from paidia to ludus, which is repeated in all the kinds of cultural institutions that Huizinga discusses and accounts. Caillois uses the behavior of a child as an idealtypical model to explain the transition from the exuberant, impulsive, disordered, and wild paidia to the more structured, rule-bound ludus (Caillois 2001, 28–29). Caillois thus writes:

> "The first manifestations of *paidia* have no name and could not have any, precisely because they are not part of any order, distinctive symbolism, or clearly differentiated life that would permit a vocabulary to consecrate their autonomy with a specific term. But as soon as conventions, techniques, and utensils emerge, the first games as such arise with them" (Caillois 2001, 29).

We can remember Ehrmann's (1968) criticism of Huizinga and Caillois on the basis that culture and play in both approaches are synonymous. This criticism can be supported by the observation that Caillois' categories of paidia and ludus can equally describe different cultures as paidia- or ludus-cultures. Caillois himself, however, says that Friedrich Schiller would already have suggested that different cultures can be described by the way they play (Caillois 2001, 163). That Caillois' play categories, ludus and paidia, should rather be considered cultural categories which are just repeated in games is thus additionally suggested by their affinity to Schiller's distinction between what he terms the sensuous and formal drives, as he describes them in his writings *On the Aesthetic Education of Man, in a Series of Letters* (Schiller 1967 [1794]). The sensuous drive "proceeds from the physical existence of man, or his sensuous nature" (Shotwell 2011, 59); it is also described as the "empirical" or "material" drive (Slethaug 1993, 145). In Caillois' terms, the sensuous drive equates with paidia, and is responsible for the exuberant, unruly and impulsive expressions of life in humanity (Caillois

2001, 28). The formal drive, on the other hand, is described as having "to do with rationality, objectivity, and constancy over time" (Shotwell 2011, 59). It has also been described as the "rational" or "ideational" drive (Slethaug 1993, 145). Both categories, the paidia/sensuous drive and the ludus/formal drive, obviously also share a likeness with Nietzsche's categories of the Apollonian and the Dionysian (Nietzsche 1999). Moreover, in a more modern cybernetic approach, one could call the categories described as paidia (or the sensuous drive or the Dionysian) and ludus (or the formal drive or the Apollonian) as noise and order. As such, Heinz von Foerster made the inter*play* of these principles the foundation of his second-order cybernetics calling it the "order from noise principle," as can be found in his article on self-organizing systems (Foerster 1960, 12).

Claus Pias is, to my knowledge, the first to relate Schiller's play theory to cybernetics, in which play appears as a control mechanism in a nation-state, negotiating between the imposed order of the state (ludus) and the people who have to conform to the structure although they initially do not (paidia). The negotiation between these two is the task of a mediating third - the police, a cultural institution which was introduced at the turn of the nineteenth century. In the light of Huizinga's and Elias' theories of the development of culture/civilization, it is interesting that it is specifically the police that is identified by Pias as the mediating third (Pias 2008, 41–42) which, in the light of Schiller's theory of play, equates it with the play drive which mediates between the sensuous and the formal drive. As such, Pias argues that Schiller's theory can be seen as a reaction to a "crisis and reconceptualization of governance around 1800" (Pias 2008, 41–42). By this understanding, the police is a civilized version of agon, or framed as a paradox – the apollonized Dionysian (possible civil riots or the like would then obviously be the dionysized Apollonian; it is thus a reintroduction of the same difference in the system which in system theory is known as "re-entry" (Moeller 2006, 223)). Furthermore, agon is so central in Huizinga's play theory that it can be considered a synonym for play. The play element in all cultural institutions which Huizinga discusses is their agonistic aspect, no matter if Huizinga speaks about war or poetry (1998).

Nevertheless, it seems that where Huizinga identifies the play element as being the motor of cultural development, one could now also call it the order-from-noise principle, as already indirectly suggested by Schiller, Nietzsche, and Caillois (albeit in different terms). As opposed to Elias, however, who holds that cultural development only develops into an ever more

civilized state, one can say that cultural development should rather be thought of as a continuous process from noise to order to noise to order to noise to order, and so on. According to system theory, every reduction of complexity produces new complexities – and thus, potentially, new noise.

Consequently, it is not only human behavior in society that becomes more structured and differentiated (while still being capable of completely impulsive behavior, and thus not entirely excluding the introduction of noise) in the course of cultural development, but also the ideas of what representations and metaphors are. We can also understand the development of ideas such as representation as developing in the form of the order-from-noise principle. This is the case, for instance, when the impressionist painters were succeeded by the expressionists, whose way of painting can, in retrospect, be considered as a form of noise that was introduced into contemporary ways of painting, therefore representing the introduction of noise into a commonplace order. The same goes for creative metaphors, which are initially "vague" and only "grow" into more conventionalized symbols over time – and, only after this conventionalization, also revealing some similarity between the source and the target domain of the involved elements (D. Anderson 1984, 462, 463). Similarly, Gerhard Kurz sums up Aristotle's take on metaphor as "a disorganization of the linguistic order which simultaneously articulates the cognition of a kinship between things" (Kurz 2004, 11). As such, metaphor also contains this kind of engine on a conceptual level for a culture, beginning with a kind of noise or vagueness of "spontaneity which is the source of creation" (D. Anderson 1984, 463) and growing into some kind of order when a certain metaphor is more conventionalized and accepted by a culture or speech community. Anderson writes with regard to the Peircean notion of metaphor:

> "The more they [originally creative metaphors] are conventionalized, the more symbolic they are in Peircean terms. This, then, finally gives us our second level of metaphor: the new level is merely what is commonly called a frozen or dormant metaphor" (D. Anderson 1984, 464).

As we can see, even Anderson, with regard to Peirce's notion of metaphor, not only distinguishes a state of noise from a state of order in metaphor development, but also implies a "second level of metaphor" which can be compared to an observation of second-order

along the lines we have already described. As such, a conventional metaphor is also a de-paradoxation of a creative metaphor.

Nor do the similiarities between metaphor, play, and representation stop there. Another element all three have in common (apart from being instances of paradox) is that, when seen as a process, they all contain an element of emergence, a crucial mechanism in Luhmann's system theory and in the science of complexity.

Emergence is itself described as a paradox by the German scientist and software engineer Jochen Fromm, who refers to the American scientist and specialist in complex systems John H. Holland.

> "Emergent properties are amazing and paradox [sic]: they are very fundamental and yet familiar. Emergent phenomena in generated systems are according to John H. Holland typically persistent patterns with changing components, i.e. they are changeless and changing, constant and fluctuating, persistent and shifting, inevitable and unpredictable. Moreover an emergent property is a part of the system and at the same time it is not a part of the system, it depends on a system because it appears in it and is yet independent from it to a certain degree" (Fromm 2005).

In other words, emergence can be described as something which is more than the sum of its parts. As such, a house is an emergent structure – it is not sufficiently described when we only sum up the bricks it consists of. In this regard, a metaphor is also not sufficiently described by analyzing the parts it consists of: that is why theorists invented something "in-between" the parts of a metaphor which accounts for the interplay of the two parts, such as the "interaction" element of the interaction view (Black 1954) or the "third" of metaphor as a triadic structure as described by Müller (2008). In this light, we can also consider the emergence of primordial distinctions which are the conditions of possibility to think such things as play, representation, and metaphor.

Returning to non-computer play theories, emergence seems to be the right term also for the final conclusion Sutton-Smith comes up with when promising to finally answer the initial question of his book *The Ambiguity of Play*: "What is play itself?" (Sutton-Smith 1997, 8). Let us, for this, keep in mind that emergence is an element which allows thinking the evolution of all kinds of biological, physical, and cultural systems. Unfortunately, Sutton-Smith does not

use the term 'emergence', but instead offers a biological approach as derived from Stephen J. Gould's theory of variability in biological evolution (Gould 1997). Methodologically, Sutton-Smith thus uses Gould's theory as a model or metaphor to understand what play is (Sutton-Smith 1997, 224) and suggests "a rhetoric of play as adaptive variability" (Sutton-Smith 1997, 221).

Sutton-Smith argues that the three basic principles of biological evolution à la Gould (which are: 1. quirky shifts (mutation), 2. redundancy, and 3. Flexibility) are also the basis for an understanding of play (Sutton-Smith 1997, 221). In other words, Sutton-Smith describes play in terms of evolution based on an idea of repetition (redundancy) and difference (flexibility) (see e.g. Deleuze) in which so-called quirky shifts produce emergent phenomena which change the structure of an organism. Sutton-Smith demonstrates that this idea is repeated in play (see Sutton-Smith 1997, 222). It should not only be a sidenote that von Foerster also compares his order-from-noise principle to emergence when saying that "the occurrence of a mutation e.g. would be a pertinent analogy" (Foerster 1960, 13).

In the light of all other theories discussed so far, it seems that play is the third between redundancy and flexibility, and, ergo, can be linked to the notion of quirky shifts or that which can be called mutation or emergence.

It should here be noted that Sutton-Smith, as well as the other theories as discussed so far and seen in the light of paradox and a concept of emergence, suggest that play is simultaneously emergence and progression. In other words, progression is also a result of emergence. This is why Jesper Juul's fundamental distinction between games of emergence and games of progression is ontologically wrong (Juul 2002; 2005). This is the case because play and emergence seem to be the same. As such, one can say that games are defined by allowing for play, and, thus, automatically feature emergence when considered as processes. Consequently, every game thought of as a dynamic system consists of emergence and progression, understood as a "progress or advancement through a period, process, sequence of events, etc." (OED Online 2013a).

The notion of redundancy is exemplified by the production of a stable structure in games, which, according to Sutton-Smith, accounts for their recognizability (Sutton-Smith 1997, 222). It also accounts for the recognizability of games after they have undergone many playthroughs. The notion of redundancy is also implied in the ideas of games as process (as

opposed to games as objects) that have already been introduced. Moreover, the same notion is also contained in Caillois' idea that ludus emerges from paidia (see above). Clearly, the notion of redundancy also accounts for the stable elements in a process of cultural evolution, such as a cultural icon.

The notion of flexibility is finally grounded in an assumed flexibility of human beings, which is ascribed to their long development from a child to an adult (Sutton-Smith 1997, 224). Sutton-Smith sees this flexibility in "most forms of play [which] require similarly large amounts of flexibility, both for learning them and for performing them" (Sutton-Smith 1997, 224).

Eventually, Sutton-Smith self-critically recognizes the objection that his final suggestion to explain the essence of play is again merely a "rhetoric of progress":

> "I add, however, the final note that, despite my extensive criticisms of the rhetoric of progress, I have now invented yet another form of it" (Sutton-Smith 1997, 231).

Similarly to Sutton-Smith, Susan Blackmore's *The Meme Machine* (1999) suggests a model for the evolution of culture which consists of the successful spreading and survival of so-called memes – a meme can be called a cultural unit or "an idea, an instruction, a behaviour, a piece of information" (Blackmore 1999, 4). Her ideas are based on the biologist Richard Dawkins' *The Selfish Gene* (2006) – a theory of genetic evolution which ends with the idea that even cultural development could consist of a similar evolutionary process (Blackmore 1999, 5–6). Here, Dawkins "popularised the increasingly influential view that evolution is best understood in terms of the competition between genes" (Blackmore 1999, 4). Following the same model, the evolution of culture depends thus on the emergence and successful spreading of memes, which, for Blackmore, primarily depends on "imitation" (Blackmore 1999, 4) – a decidedly human capacity (Blackmore 1999, 3) – and a competition or struggle for survival. As such, Dawkins' and Blackmore's theories for both genetic as well as cultural evolution rely on a principle of emergence, except that this kind of emergence is explained through a model of Darwinian evolution whose primary mechanism of "natural selection" consists of "variation, selection, and retention" (Blackmore 1999, 10). Her model is obviously very similar to Sutton-Smith's model, whose quirky shifts and redundancy roughly equal Blackmore's variation and retention. As such, one can say that Sutton-Smith's flexibility can be interpreted

as Darwin's selection, where selection means that a meme or a gene is successfully reproduced. In other words, it survived the existential struggle.

With regard to the play theories discussed so far, one can see here a striking parallel, for instance, with Huizinga. In a nutshell, theories of play do not only contain a reformulation of a principle of emergence, but also of a principle of evolution which can be considered as a continuous emergence over time according to laws of evolution. As such, Blackmore's theory of memetics relies on two elements – imitation and survival of an existential struggle. Referring to Karl Popper's epistemology based on falsification, Blackmore notes that "scientific ideas also evolve" in a similar way to memes, with the result that "science can then be seen as a competitive struggle between rival hypotheses in which only some survive" (Blackmore 1999, 28). As such, the element of survival is closely linked to an element of competition. On the background of the latest cases of plagiarism among German politicians in 2011 and 2012,[45] there is obviously a smack of irony in the fact that the evolution of knowledge depends on imitation. However, this is exactly why it is so important to reference unambiguously.

One can now see that Blackmore's functions, imitation and competition, are strikingly similar to Huizinga's essential functions of play as presented in section 3.2, specifically in his claim that play appears in two ways – either as "a contest *for* something or a representation *of* something" (Huizinga 1998, 13). In the following sentence, Huizinga goes on to say that representation can itself be part of a competition (Huizinga 1998, 13). Thus, one could speak here of a re-entry of the agon principle on a higher order, and therefore again speak of play as a simultaneity of first-order and second-order observation.

It is in this light, moreover, we have to understand Wittgenstein's language games (1958) according to which empirical games share so-called family resemblances. He can only call these practices games when he thinks of them as objects or as systems of fixed significations. Thought of as processes, Wittgenstein would need to call his games "language play," as this captures the constant change of the meanings of words in a language in use. Obviously, language in use is subject to emergence, or quirky shifts, too. This is also at the core of Derrida's understanding of deconstruction as the "play of signification" which seems to be

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[45] For instance the former German minister of defense, Karl-Theodor zu Guttenberg, had to resign due to having plagiarized his doctoral dissertation to a large extent.

nothing else than relying on a principle of emergence, only described as a "decentering" of a centered structure (Derrida 2002, 354). Heinz von Foerster would perhaps say that a structure in Derrida's terms, be this language or some other cultural institution, thought of as a process is constantly faced with an introduction of noise that possibly results in its "decentering." The mechanisms of this "decentering" can obviously be best observed from a position of second-order. That is why Niklas Luhmann's systems theory can be linked with Derrida's deconstruction in that "deconstruction is a more or less immediate predecessor of the theory of second-order observation" (Moeller 2006, 195).

After this discussion, I suggest that the relation between metaphor, representation, and play should be considered in terms of an evolutionary onion model, which I will explain below. With this model, one can understand the phenomena named metaphor, representation, and play as being possible through a primordial distinction, and as being central elements in evolutionary models of the development of culture, as I intend to illustrate in Figure 2.

As such, the central circle of Figure 2 can be understood as existence in time and space, which applies to all kinds of living forms, including humans, in a pre-conscious state. The second circle describes an original distinction which allows for the distinguishing between different things to exist, and thus accounts for a capacity to perform distinctions. The third circle includes the first two circles. The circle itself describes an observation of higher order which can distinguish between the other two cirlces. It makes possible the addressing of the distinction which is performed in the second circle, i.e. it makes it possible to see if there is a situation of existential struggle going on or a situation of battle-play. If there is a situation of battle-play going on, it can represent this existential struggle without being equally existential itself. As such, this third circle also accounts for the human capacity to represent things with other things. It then contains all kinds of representational systems, such as language, music, the arts etc. This circle accounts for the human capacity to not only observe this performed distinction on the lower order level, but also to name it as representation. It is here that the specific human capacity of representation (see again Hacking (1983) and Blackmore (1999)) sets in, which simultaneously accounts for the capacity of self-reflection. Language, thinking, ritual etc. can also be counted included within the realm of representations. Consequently, metaphor is understood as a kind of second-order representation, or a representation of

representations through other representations – which was already suggested by Peirce saying that metaphors are

> "those [iconic signs] which represent the representative character of a representamen by representing a parallelism in something else" (Peirce 2.277, c. 1902 in D. Anderson 1984, 453).

Since, however, all these concepts are elementary elements of sense-making in culture, they are all contained in a larger circle we can call culture, and this is why the all-encompassing circle is named culture.
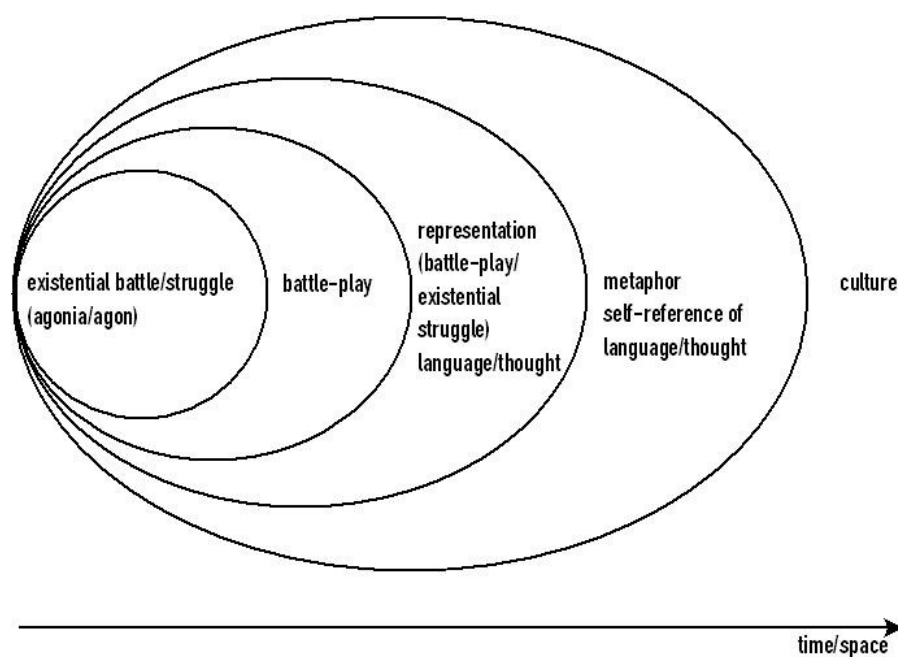
Figure 2: The evolutionary model of the relation of play, representation, and metaphor.

In addition, play seems, in different theories, to be equated with the principle of emergence, as one can see when comparing the characterizations of the notion of play in Schiller, Nietzsche, Huizinga, Caillois, and Sutton-Smith. Play here appears as strikingly similar to the driving force accounting for evolution, as, for instance, in Luhmann's systems theory (1995), in Dawkins' theory of genetic evolution (2006), and in Blackmore's memetics (1999) which in all

cases can be seen as a kind of emergence – even if it is not directly called emergence. Luhmann uses the term emergence directly to account for the evolution of systems.

As such, one can also assume that play describes the change from one state of certain phenomena to a different state, possibly of a higher order. This goes for an agonistic football match as much as for the evolutionary development of culture – which, following what we have said, would be understood as being determined by an underlying Darwinian evolution. The outcome of a football match is emergent as it is not predictable.

The inner two circles can furthermore be understood as the sphere of praxis, whereas the other circles can be understood as the sphere of theories or concepts in which, on a higher order, the sphere of the praxis is repeated in the form of a praxis of theory. It is in this light that one can understand that the principle of agon is repeated from the sphere of praxis to the sphere of concepts.

This can be further understood through an application of Karl Popper's "three 'cosmic evolutionary stages'" as described by Blackmore (1999, 28). Popper's evolutionary stages resemble three different worlds: the "world of physical objects such as trees, table and human bodies" (World 1); the world of "subjective experiences, including feelings, emotions, and consciousness" (World 2); and the "world of ideas; of language and stories, works of art, technology, mathematics and science" (World 3) (Blackmore 1999, 28). The interesting element in Popper's thought is that all three worlds are interconnected and affect each other. Blackmore provides the example of scientific theories, which occur as objects of World 1 in the form of the scientist's body, scientific print journals, apparatuses in laboratories and so on (Blackmore 1999, 29). This physical World 1 is however influenced by ideas created in World 3 when "the ideas in the sculptor's mind (World 3) affect the experiences of others (World 2) and thus lead to new sculptures (World 1)" (Blackmore 1999, 29). Blackmore criticizes Popper's model in that he cannot explain how ideas can "'have a life of their own'" (Blackmore 1999, 29); thus, he is missing a notion of autopoiesis for the realm of ideas in which ideas provoke new ideas. Despite Blackmore's criticism, Popper's model is useful again to explain my claims to this point. The two inner circles of my evolutionary onion model, "existential battle/struggle" and "battle-play," are thus elements of World 1 when this distinction is performed. This can furthermore be thought of as a pre-conceptual realm, and thus as a realm of praxis which can certainly be physical, such as the sorting of the apple

harvest as described in section 2.4.4. The existential struggle as well as the representation are performed but not thematic. As such, whatever happens in this realm does not even need to be called existential struggle or the like.

In this realm, representation is a form of praxis, too. A form of battle-play can be performed. In my evolutionary model, the third circle (representation) belongs to World 2, and marks the moment when humans become conscious. Not only can they perform a practical distinction between existential struggle and battle-play (ready-to-hand), they can also name this relation as representational. In this moment, the distinction between existential struggle and battle-play is not performed by somebody, but it is thematic to somebody. The representation is no longer merely an action which is performed, in which the representing is used to represent something else – such as using sounds to signify – but it can become present-at-hand, in Heidegger's terms (2008, 95–107), in that the relation between the thing and the sound can be addressed as a form of representation.

The Heideggerian category readiness-to-hand indicates the performance of a certain distinction, e.g. when I am speaking I am not doing something else, which I could equally do. Thus, what I am doing is distinct from what I am not doing; so I perform a distinction. On the other hand, presence-to-hand describes the observation of this distinction, i.e. by speaking my sounds represent something. This is how readiness-at-hand and presentness-to-hand apply roughly to the distinction of first-order and second-order observation in system-theoretical terms. This, again, is a repetition of the idea of play consisting of the simultaneity of first- and second-order observations. As a result of this, one can say that even these two observer positions are the result of an emergence.

Metaphor then belongs to World 3 – the realm of ideas, languages and concepts – which offers the possibility not only of naming or denoting the elements of World 1 and World 2, but also of thinking about them in terms of each other. On this level, the praxis of representation is repeated, but can also be thematized as a concept. Ideas and concepts are usually represented in the form of models, theories and so on. When some concepts are explained by means of other, usually unrelated, concepts, we have a case of metaphor – metaphor, though, is a matter of thought and/or of language (see e.g. Müller 2008) and, as such, it is clearly an element of World 3. The circle of metaphor then represents a form of higher-order representation in which representations are represented through other

representations. In other words, in this layer, representation is not only a praxis, but one can also address the kind of representation from an observation of a higher order.

What is important for my purposes, however, is that World 3 does not only affect World 1 and World 2, as in the example of the sculptor, but, with Lakoff and Johnson's metaphor theory, one can say that World 1 and World 2 equally affect World 3. One can therefore assume that the spatial and bodily basis of cognition proclaimed by Lakoff and Johnson (see section 2.4) stems from the bodily and spatial being of humans in World 1 and its experience in World 2. According to Lakoff and Johnson, our metaphorically structured conceptual system is based on our bodily being in space (see section 2.4), which is first and foremost experienced through our body - with the result that the conceptual thinking in World 3 is, to a good degree, spatially organized.

The evolutionary model of the equiprimordiality of metaphor, representation, and play can, on the one hand, be seen as diachronically describing a possible development of the three forms. On the other hand, however, one has to take into consideration that all three forms and the worlds to which they apply all exist simultaneously, and are part of the world a human being is thrown into, to say it with Heidegger once again. This means that the three worlds as described by Popper exist simultaneously.

It is, moreover, possible to show that the concept of play and the concept of metaphor are based on a spatial model, which again can be thought of as stemming from World 1 thought of as a praxis and which gets repeated in World 3 on the level of concepts. I will show this in the next and final section of this chapter.

3.9 Play as a praxis repeated in theory – the dynamic, spatial model of play

With regard to the next chapters of this thesis, I want to emphasize the essential spatial structure supporting the understanding of play as presented so far.

When talking about the "so-called metaphorical senses" of the word "play", Hans-Georg Gadamer stresses that we speak of the "play of light, the play of the waves, the play of gears or parts of machinery, the interplay of limbs, the play of forces, the play of gnats, even a play on words" (Gadamer 2004, 104). Gadamer thereby does not only refer to the ubiquity of the

term, but also to the characteristic "to-and-fro movement" of play. As a movement, play is decidedly set up as a spatial practice. This is supported by the observation that "the word 'Spiel' originally meant 'dance'" (Gadamer 2004, 104). Huizinga refers several times to the dance of animals such as birds, as well as to ritual dances, in his book (1998). Similarly, Caillois counts "children 'whirling'," "swinging," and "waltzing" as instances of his category of ilinx games, which, as bodily activities, can be elements of dances Caillois (2001, 36) – "waltzing" here clearly refers to the dance called waltz - and thus to a bodily and spatial praxis. Apart from describing the to-and-fro movement of a swing, the verb "to swing" also refers to the dance called "Swing," which describes "a group of dances that developed with the swing style of jazz music in the 1920s-1950s" "Swing (dance)" (Wikipedia 2013). Dance as a performance or praxis (Dieter Mersch emphasizes that play belongs to the sphere of praxis (2008, 19)) of bodily movement in space, and as a ritual, can thus be considered as related to Huizinga and Caillois' essential distinction of play as a contest or representation, and as ruled (the performative aspect) or make-believe (the representational aspect of dance) (see section 3.2).

Accordingly (see also section 3.8), one can understand agon or some kind of existential struggle as a principle which emerged primordially in the sphere of praxis, and which was then passed on to the realm of thought and of concepts, in which it is repeated as an existential and evolutionary struggle between concepts and memes, as described by Blackmore (1999), or a contest for representations (Huizinga 1998, 13).

In addition to being grounded in a realm of praxis, agon shares with dance its status as a decidedly spatial phenomenon. Referring to Huizinga's emphasis of the agon element in play, Gadamer himself relates what he calls the "fundamental role of the to-and-fro movement of play" to the "playful character of the contest" (Gadamer 2004, 105).

In addition to this spatial movement, Gadamer proposes that "human play requires a playing field" (Gadamer 2004, 107) and emphasizes thereby its spatiality, as already implied by Huizinga and Caillois' suggestion that play would be separate from everyday life and takes place in a dedicated space such as the magic circle (see section 3.1). In line with that characteristic for play is the fact that it takes place "in between" (Gadamer 2004, 109). Obviously, a contest can also be thought of as going on "in between" opponents.

The duel can be seen as a prototypical form of a contest. The German-Prussian general Carl von Clausewitz's definition of war is based on the idea of a duel:

> "War is nothing but a duel on a larger scale. Countless duels go to make up war, but a picture of it as a whole can be formed by imagining a pair of wrestlers. Each tries through physical force to compel the other to do his will" (Clausewitz 1984 [1832]).

Focusing on the duel as an idealtypical setting, von Clausewitz provides here a model which allows for an immediate spatial understanding of play in terms of agon. The duel in the example consists of a pair of wrestlers who obviously have diametrical interests, i.e. the success of one depends on the detriment of the other. As such, the duel delivers automatically a spatial configuration – since it features two opponents, it contains an opposition by definition. The adjective "opponent" is defined as "situated opposite" (OED Online 2004). Every approach to play emphasizing an element of agon such as Huizinga and Caillois somewhat implies such an archetypal spatial setting.

The "in between" of play refers simultaneously to the medial character of play as described by (Gadamer 2004, 104), which accounts for play not having its own substance but rather coming into existence through human beings or animals or natural phenomena which are fulfilling the form of the to-and-fro movement.[46] This is what Gadamer has in mind when saying:

> "The movement of play as such has, as it were, no substrate. It is the game that is played – it is irrelevant whether or not there is a subject who plays it. The play is the occurrence of the movement as such. [...] the actual subject of play is obviously not the subjectivity of an individual [...] but is instead the play itself" (Gadamer 2004, 104 quoted in Mersch 2008, 19).

Writing about the meaning of play for creativity, Dieter Mersch emphasizes the points that play is "situated at the center between poles and has a share in chance as well as strategy and calculation" [Konsequent siedelt es [Spiel] in der Mitte zwischen den Polen, partizipiert gleichermaßen am Zufall wie an Strategie und Kalkül] (Mersch 2008, 23).

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[46] Two authors within the game studies discourse who decidedly observe play and related phenomena such as computer games with an emphasis on their aesthetic form are David Myers (2010) and Graeme Kirkpatrick (2011).

Applying his observations in the realm of creativity, Mersch's thought moves here in similar ways to the theories discussed in the previous section concerning the evolutionary model of play. The opposition of chance and strategy can be understood as another paradox and another instance of an "in between" between order and noise (see 3.8). Furthermore, to Mersch, the notion of the "center [Mitte] refers already to the concept of the medium" (Mersch 2008, 23).

Additionally, Mersch names play a "medium which mediates differences" and calls it, similarly to Pias (see section 3.8), a third ("tertium") (Mersch 2008, 27). This idea of play as a mediating third was, according to Mersch, fostered by defining strict distinctions such as usefulness/uselessness, rational/irrational etc. by which play was characterized, and which occurred with the age of the Enlightenment and continued in the play theories of Schiller, Huizinga, and Gadamer (Mersch 2008, 26).

This "in between two poles" is contained in many of the concepts and examples which I have discussed in this chapter. Therefore, all these concepts also exhibit play through an underlying spatial model. As such, the notion of play as a paradox (Bateson 2000) can be understood as an "in between" *is* and *is not*. An unresolved paradox can then be understood in terms of a process – specifically, a to-and-fro movement between two mutually excluding options which are simultaneously valid. Luhmann's notion of games as an oscillation between what Luhmann calls, "real" reality and game reality similarly suggests an oscillation *between* these two frames even when a deparadoxified game is in progress, since playing itself requires performing this distinction at every step. The same goes for the conception of play as the unity of the difference *between* Schiller's formal and sensual drive through a third, the play drive (Schiller 1967), Nietzsche's Apollonian and Dionysian (Nietzsche 1999), and Espen Aarseth's game master tropes aporia and epiphany (Aarseth 1997, 91, 181). This also counts for Caillois' categorization of play as a continuum *between* paidia and ludus (2001), as well as for Turner's liminal phase in initiation rites (1977), which takes place "in between" two different societal states, defined as the unity of the difference between a "no more" and a "not yet." Sutton-Smith's analogy of play as being "on the beach between the land and the sea" and his observation that play "goes in two directions at once" furthermore support the idea of play as an in between (Sutton-Smith 1997, 1).

Similarly, the visual models used to exemplify metaphor, representation, and play – such as the Necker-cube, the duck-rabbit, and the Rubin's vase – all refer to two simultaneously possible interpretations between which an observer can choose when deciding what she wants to see on the level of the first-order observation; alternatively, in each case, she can observe these visual models as a whole, and thus perceive a paradoxical image, which equals an observation of second-order. Nevertheless, on each level it is a decision *between* two or more options. On the first-order level she decides between which possible content of the image she wants to see and on the second-order level she might decide between the options of how to classify the picture: as an instance of representation, metaphor, or play.

Getting back to Lakoff and Johnson's take on metaphor and cognition, we can surmise that all these spatial models are effects of the metaphorical construction of our concepts which are based on our bodily existence in the world. As such, this "movement in between" can be considered as just one way of describing the play aspect of metaphor and representation in more graspable terms, according to the idea of cognitive linguistics that we use concrete source domains in order to conceptualize more abstract target domains.

With regard to my onion model of cultural evolution, one can also assume that play originally existed as a form of spatial praxis – as, for instance, in the form of an existential struggle (agon) – and was then repeated in the realm of theory or the realm of concepts and thought. As such, especially when saying that play is medial, one can assume the "to-and-fro movement in between" as some kind of primordial spatial model for play. In other terms, whichever constellation can be thought of or experienced as provoking a movement in between two poles exemplifies play. The provocation of such a movement is perhaps best understood through the induction of some kind of force or energy. This, again, could happen, for instance, through a form of STRUGGLE that can, as we have seen in Johnson's theory (Johnson 1987; 2007) (see also 2.4), be related back to an original bodily experience of FORCES in the world, such as wind. As such, it is thinkable that both STRUGGLE and the "movement in between," can also be thought of as stemming from an originally bodily experience which is repeated in concepts and thought.

In terms of Popper's model of the three worlds, this implies that these concepts, in the process of human cultural evolution, move up from a bodily experience in world 1 to a structure of thought in World 3, and thus to the level of metaphor. From this perspective,

many metaphorical concepts contain this feedback to a bodily experience of a preconceptual world. For instance, the LIFE IS A JOURNEY metaphor (see Lakoff and Johnson 2003; 1999) does not only contain a structure of thought which allows members of a culture to think of their lives in terms of journeys, but it also refers to the praxis of traveling or, more generally, to a movement. In a similar way, one can see the ARGUMENT IS STRUGGLE metaphor (Lakoff and Johnson 2003, 7, 264–265) according to which an argument is not only understood in terms of a struggle – the metaphor simultaneously provides a model for the praxis of some kind of struggle, as in the just-described prototypical model of duel.[47]

In this regard, everything which can be understood in terms of a struggle, such as, for instance, the struggle between the Republican and the Democratic parties in the United States of America, can also easily be represented through the performance of a struggle. The game *John Kerry: Tax Invaders* (Republican National Committee 2004), for instance, represents the struggle between the two parties concerning a planned tax increase by the Democrats. In Chapter 5, I will provide a criticism of an interpretation on this game, which will be based on arguments I develop in Chapter 4.

3.10 Conclusion

My aim in this chapter has been to show that the notions of play and representation are inevitably related, since both require an essential distinction from something which is not play or from that which is represented. Fink's view on play conceptualizes play as always already being a representation of existence by being existential itself. This view suggests that any given form of play can always be understood as representing existence, even in cases when a form of play has not been explicitly marked as a representation. In this regard, existence can

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[47] As shown in section 2.4.1.6, Lakoff and Johnson later revised their famous analysis of the ARGUMENT IS WAR metaphor to the ARGUMENT IS STRUGGLE metaphor due to insights gained by the research and theory of primary metaphor (Lakoff and Johnson 2003, 264–265). According to this theory, children learn certain concepts primarily through their bodily experience, and then relate these experiences to the words and concepts they learn as soon as they learn a language. Throughout their development, they add certain experiences to these concepts and broaden them. The idea with regard to the ARGUMENT IS STRUGGLE metaphor is then to say that children first learn about struggle before they learn about war. As soon as they learn about war, it can be related to the meaning of struggle as well. As such, the ARGUMENT IS STRUGGLE metaphor is more basic as the ARGUMENT IS WAR metaphor (Lakoff and Johnson 2003, 264–265).

become the background for any understanding of a form of play as something else, and thus as representative.

The evolutionary onion model suggests a possibility of how forms of play, representation, and metaphor could have developed culturally, from a praxis of existence to a praxis of representation to a kind of second-order representation (metaphor) which repeats forms of practical representation on the level of thought. Taking into account a Heideggerian thrownness of every individual into a world, all these three forms can count as equiprimordial, since they are always already present, and thus form an integral part of, at least, Western human thought and praxis. As such, the three forms play, representation, and metaphor can also be translated into the model of the three worlds proposed by Popper, which exist simultaneously and address different levels of human existence – with World 1 being the realm of existence and praxis (play), World 2 being the realm of representation, and World 3 being the realm of concepts, language, and thought (metaphor). In the light of Lakoff and Johnson's theory, according to which metaphorically structured concepts and cognition are based on our bodily and spatial being in the world, experiences from World 1 are coupled with concepts and ways of thinking in World 3. The theory of primary metaphor suggests that each concept which contains an element of STRUGGLE or WAR might derive from a related bodily experience in World 1, such as the experience of encountering all sorts of FORCES.

Furthermore, the conceptualization of play as a "movement in between," as suggested most forcefully by Gadamer, and as supported by the prototypical model of a duel, suggests that all concepts containing some kind of agon, such as "arguing," can be imagined as a spatial configuration in terms of a duel. In this regard, most concepts of play are decidedly based on a spatial understanding.

Finally, the interplay of play and representation always refers to the distinction between a first-person player and a third-person observer – or, in other words, between play as doing and play as meaning (Galloway 2006, 104; in Paul 2012, 7). In this regard, for a first-person player play is primarily a doing, and, as such, a praxis, whereas for a third-person observer play as representation becomes important for its meaning.

Chapter 4 – The metaphor–simulation dilemma[48]

4 On the presence of the notion of metaphor in the game studies discourse

As I have already mentioned in the introduction to this thesis, in the literature from the field of game studies (as described by Egenfeldt-Nielsen, Smith, and Tosca 2008; Mäyrä 2008, 1–12) a frequent use of the term "metaphor" or one of its tropical relatives, such as "allegory," is noteworthy (e.g. Aarseth 2001a; Pearce 2002; Crawford 2003; Juul 2005; 2007; Rusch 2009; Begy 2010; 2011; Bogost 2011). This term is generally used to refer to semiotically abstract games. In other words, "metaphorical" games in this sense are commonly seen to feature abstract geometrical objects instead of graphically detailed anthropomorphic characters or realistically modeled objects.

Additionally, the notion of metaphor is often used with regard to a game design movement which contains the range of artgames (Jason Rohrer in Bogost 2011, 11), newsgames (Bogost, Ferrari, and Schweizer 2010), advergames (Frasca 2003a, 225) and serious games (see e.g. Abt 1987; Frasca 2007) – or, in short, games with an overt message or "an agenda". "Games with an agenda" is an expression coined by Ian Bogost and Gonzalo Frasca. It describes "games that aim to communicate in addition than entertaining" (Frasca 2007, 26). In other words, the primary goal of these games is to convey a certain message. Among the games that are commonly mentioned in this regard, we can note a particular emphasis on so-called proceduralist[49] artgames, such as *Braid* (Blow 2008), *Passage* (Rohrer 2007), and *The Marriage* (Humble 2006) (all examples from Bogost 2011, 12–13)) – all of which are labeled metaphoric (or allegorical). Accordingly, *Braid* is said to "take[…] the seemingly familiar genre of the platformer and turn […] it into an allegorical exploration of the themes of time and regret" (Bogost 2011, 12). In an interview, Jason Rohrer describes *Passage* as a "very abstract metaphor" (Dahlen 2010).

There are at least three problems with the notion of metaphor in this discourse.

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[48] Parts of this chapter have been or are going to be published in a conference paper (Möring 2012), a journal article (Möring forthcoming) and a book chapter (Möring forthcoming).

[49] The notion "proceduralist game" will be explained shortly.

1. The notion of metaphor (or allegory) is usually lacking a closer definition. Instead, its meaning is taken for granted.

2. Hence, one can suspect that the notion of metaphor itself is used with an agenda, especially with regard to artgames. Its ideology is derived from an understanding of metaphor accounting for creativity within poetry in order to let the aforementioned artgames appear in the aura of art. In other words, calling artgames metaphoric nourishes the hope that they automatically appear more artistic.

3. Observing the broader discourse of game studies, one can see that the term metaphor is very often used in textual and conceptual proximity to the term simulation (e.g. Aarseth 2001a; Begy 2010; Bogost 2011; Crawford 2003; Juul 2005). The term "metaphor" itself is often used as a metaphor for an abstract and unrealistic simulation. This leads to the hypothesis that metaphor and simulation actually refer to the same phenomenon, which suggests that one of the two terms could be superfluous with regard to games.

In this chapter, I therefore analyze the dilemma and suggest a theoretically rigorous way of allowing a better-founded use of a notion of metaphor next to simulation with regard to games.

In the following, I will establish the dilemma by briefly tracing a metamorphosis of terms in the recent history of game studies, from the notion of "simulation" via the notion of "procedural representation" to "proceduralist artgames," which apply the concept of metaphor. I claim that the notion of metaphor is primarily used for ideological reasons, and argue that the described metamorphosis establishes a distinction of metaphor belonging to the games-as-art discourse as opposed to games as simulation belonging to a games-as-science discourse, although the described game objects are not ontologically different. The dilemma is further nourished by the observation that even in the more general discourse of the study of computer games, the notions of simulation and metaphor are used almost interchangeably. The dilemma will become most apparent when definitions of metaphor and definitions of simulation are juxtaposed.

The contribution of this chapter to understand the dilemma will be a discussion in six steps in order to deal with the conceptual problems it presents.

1. The first suggestion takes into account the fact that games are often called metaphorical when authors refer to their degree of abstraction. I will suggest considering game simulations as well as artgames as essentially synecdochic, due to their being representations.

2. The second suggestion offers an analytical distinction between a first-order and a second-order simulation (metaphor) based on semiotics, to counter the difficulty of deciding whether a game is a simulation or a metaphor based on its iconicity.

3. Then, I suggest applying knowledge from the philosophy of science and metaphor theory, where a close relationship between metaphors and models was discovered (Black 1962a; Hesse 1966). Later, I will suggest a consideration of simulation games as being based on metaphorically structured models, and thereby help to reconcile the two terms, metaphor and simulation, for game studies.

4. In a further step, I will provide an in-depth case study of the game *The Marriage*. On the one hand, this will exemplify the metaphor-simulation dilemma in one specific case. On the other hand, it allows for an understanding of how the notions of metaphor and simulation can be reconciled, in that the game can be understood as a simulation of a metaphorically structured Western model of love.

5. In a critical reconsideration of this case study, I will argue that *The Marriage* is, firstly, not that dissimilar from *The Sims 3* when it comes to the simulation of love. In addition, I will show that other games (such as *Passage)* which are commonly described as metaphoric in the artgame discourse, do not differ from mundane games (*Super Mario Bros.*, *The Sims 3*, *SimCity*) in the way they could be understood as being metaphoric.

6. Referring to the so-called SimCity effect, a notion coined by Noah Wardrip-Fruin (2009), I will hold that the game simulations, when being played, at some point cease to be simulations, since they come instead to be experienced in their own right. Based on this effect, I argue that playing the games discussed in this chapter consists of a negotiation of space, and that they primarily contain the spatial preconditions for the metaphors in question (source domains). As such, I also argue for a de-metaphorization of our approach in the case of *The Marriage*.

4.1 Metaphor and simulation in game studies

On the one hand, the concept of simulation has been tackled by some authors in the field of game studies (Aarseth 2004; Bogost 2006a; Crogan 2011; Frasca 2001c; Frasca 2003a; Frasca 2007; Gregersen 2008; Juul 2005; Klabbers 2006; Myers 2003) and can be considered a key term in game studies. On the other hand, very few scholars have deliberately addressed metaphor as a concept to understand and/or analyze computer games so far (Begy 2010; Bogost 2007a; Kromhout 2010; Rusch 2009). However, as mentioned in the introduction, many authors use the term without a theoretical foundation.

4.1.1 Metaphor in the artgame discourse of game studies

In this section I aim to briefly trace a development within the game studies discourse that is closely related to the names Gonzalo Frasca and Ian Bogost, and to their concept of "games with an agenda," (Frasca 2007, 200) or game rhetoric. Both names also serve as the representatives of a development of terms within the game studies discourse which ranges from questions of representation, realism and ideology in simulation (Frasca 2001c; Frasca 2001a; Frasca 2003a) to the notion of metaphor in proceduralism (Bogost 2011). This is meant to show one way in which the notion of metaphor developed within the game studies discourse, and how it grew out of a notion of simulation.

4.1.1.1 Games with an agenda – from simulation to metaphor

Gonzalo Frasca's interest in simulation was originally inspired by the wish to delimit the peculiarity of games as dynamic simulations from static representation such as, for instance, painting (Frasca did not consider that simulation is a kind of representation, too) (Frasca 2001a). Later, he distinguishes between the concepts of narrative and simulation, and focuses on the ideology implied in all simulations due to their reductionism and subjectivity, observing the necessity of a gaming literacy to compensate the implied ideologies (Frasca 2003a, 225). Frasca's most cited definition on the subject matter is based on Charles Sanders Peirce's sign model, and, accordingly, says, "to simulate is to model a (source) system through a different

system which maintains to somebody some of the behaviors of the original system" (Frasca 2003a, 223).

In the following, Frasca shifts the perspective from the a priori ideology as an unavoidable aspect of all simulations to a framework of "simulation rhetoric" which makes use of a specific ideology in order to serve games with an agenda (Frasca 2003a), which he applied in his own game design works such as *Kabul Kaboom!* (Frasca 2001b), *Howard Dean for Iowa* (Powerful Robot Games and Persuasive Games 2003), *September 12th* (Frasca 2003b). Consequently, Frasca moves his focus from the unintentional message in games due to their need for reduction and stylization, to games with an intentional message where specific reductions are used intentionally in order to convey a specific perspective on a simulated aspect.

Ian Bogost's ideas are closely intertwined with Frasca's, which is due to a close cooperation of the two in both fields – computer game theory and analysis, and the practice of game design (Frasca 2007, 26). In his book *Unit Operations* (2006a), Bogost discusses Frasca's definition, saying, "Frasca exposes in this simple definition: the simulation represents the real world *in part*, but not in whole" (Bogost 2006a, 98). Bogost goes on to include this lower degree of complexity into his slightly altered definition:

> "A simulation is a representation of a source system via a less complex system that informs the user's understanding of the source system in a subjective way" (Bogost 2006a, 98, 107).

More important for Bogost's definition, however, is the notion of the "simulation gap", introduced by Bogost in order to account for a "gap [which,] constitutes the core representation of simulation, between the work's rules and its reception" (Bogost 2006a, 107). Consequently, the way in which simulations represent depends as much on the simulating object and the inclusion and exclusion of the source system's characteristics as it depends on the subjectivity of the user (Bogost 2006a, 105; Bogost 2007a, 43). In between the three, the source system, the simulating object, as well as the user, is a gap which can more generally be called the representation gap, since it does not alone count for simulations. It is rather a constitutive gap which simply consists of the fact that the representing is exactly not what it represents but is supposed to account for it. Only due to this gap can it represent in the first place. This gap is therefore the door through which ideology can sneak in.

The simulation gap plays a further role within Bogost's subsequent book *Persuasive Games* (Bogost 2007a), which consists in a large part of the analysis of different kinds of games with the agenda to convey specific ideas in the fields of politics, advertisement and education. The book is, moreover, an essay to promote the concept of *procedural rhetoric,* which accounts for the persuasive capacity of these kinds of games.

> "Previously, I have argued that the ontological position of a videogame (or simulation, or procedural system) resides in the gap between rule-based representation and player subjectivity; I called this space the 'simulation gap.' Another way to think about the simulation gap is in relation to rhetoric. A procedural model like a videogame could be seen as a system of nested enthymemes, individual procedural claims that the player literally completes through interaction" (Bogost 2007a, 43).

The framework of *procedural rhetoric* thus describes "the art of persuasion through rule-based representation and interactions rather than spoken word, writing, images, or moving pictures" (Bogost 2007a, ix). Bogost uses here the context of Aristotelian rhetoric and thus plays already on one of the home fields of metaphor. In addition, it is noteworthy that Bogost now makes a conscious conceptual shift from the notion of *simulation* to the notion of *procedural representation,* although Salen and Zimmerman use the latter as the definiens in order to define the former (the definiendum) and thus consider procedural representation and simulation synonymous (Salen and Zimmerman 2004, 423). However, Bogost does not make a conscious distinction between simulation and procedural representation as two different ways of how games signify through processes. Instead, he simply delimits procedural representation from non-procedural kinds of representation, similarly to Frasca (2001a). Bogost writes:

> "…procedural representation takes a different form than written or spoken representation. Procedural representation explains processes with other processes. Procedural representation is a form of symbolic expression that uses process rather than language" (Bogost 2007a, 9).

The distinction between Bogost's definitions of procedural rhetoric and of procedural representation seems to be that the former's goal is to *persuade* through the latter. What seems to be at stake here is the same shift as Frasca's, from an unintentional message (hidden ideology) contained in simulation to an intentional message (open persuasion through ideology) conveyed through procedural representation. The problem I see here is that Bogost

is ontologically still speaking about simulations, but places them in a different context in order to account for their persuasive power. Yet, simulations as such also have to persuade the user – namely that they successfully simulate what they pretend to simulate. The only difference between simulations and procedural persuasive representations is thus of a contextual nature. Following Juul's criticism that an "ideology isn't in the game but in the assumptions around the game" (Juul in Frasca 2007, 101), Frasca admits himself that a game's ideology depends on the "social, cultural and historical boundaries" it is surrounded by (Frasca 2007, 101).

Finally, when writing about games as art in *How to do Things with Videogames* (2011), Bogost shifts from *procedural rhetoric* to the notion of *proceduralism* in order to account specifically for some so-called artgames instead of for all kinds of games with a message. He introduces "the term *proceduralism* to characterize the style partly represented by" games like *Braid*, *The Marriage*, and *Passage* (Bogost 2011, 12). This style is slightly more determined by Bogost's claim that "proceduralism shares some of the values of expressionism in art" (Bogost 2011, 16). As a disclaimer, Bogost says that this style is neither representative of all games nor even of all artgames (whatever this may be). Characteristically, "proceduralist games are process intensive—they rely primarily on computational rules to produce their artistic meaning" (Bogost 2011, 13). What is interesting is that Bogost repeats the same argument, almost like a mantra, for artistic games that he had already applied to procedural persuasive representations and simulations, according to which these rely primarily on processes to convey their message. Finally, Bogost makes the leap to metaphor and distinguishes it from simulation, the concept he and Frasca started from: "at a time when videogames focus on realistically simulating experiences, proceduralism offers metaphoric treatments of ideas" (Bogost 2011, 17).

Unfortunately, Bogost provides no closer definition of his concept of metaphor, nor does he tell how it is distinguished from simulation. The reason might be simply that he transformed the one concept into the other over time. It seems that the concept of metaphor itself serves as a catachresis to account for the literal gap in simulations as well as procedurally persuasive representations. From the last quote, one can only guess that Bogost's notion of metaphor is defined by its delimitation from simulation. Simulation does here account for some kind of artistic or scientific realism, and metaphor for some kind of expressionism whose mechanism is not being described. This is further supported by Bogost's emphasis on abstraction and a poetic style applied in proceduralist artgames, as they "tend to combine concrete, identifiable

situations with abstract tokens, objects, goals, or actions, like the abstract tokens in Rohrer's treasure chests. From the perspective of signification, proceduralist works deploy a more poetic and less direct way to express the ideas or scenarios their processes represent" (Bogost 2011, 16).

The reason for this brief tour was to demonstrate the metamorphosis of an original notion of simulation in game studies over time into a shallow distinction between simulation and metaphor. Along with this distinction come specific agendas, such as the games-as-art agenda related to proceduralism (and games as metaphors) as well as the games-as-science agenda related to an idea of mimetic and realistic games as simulations.

What is problematic here is that the described procedurally persuasive representations are in no way ontologically different from other games or simulations. Their difference consists purely of the context (the agenda or the discourse) or the applied ideology which these games are situated in. This implies that the notion of metaphor is more likely to be used in the context of games which are termed expressionist artgames, whereas the notion of simulation is more likely to be used in the context of games which are termed realistic. It is obvious that the notions of expressionism and realism describe a stylistic distinction within the context of art history, as well as the broader distinction between art and science as such. In addition, this seems to justify our initial assumption that some games are called metaphoric within the framework of a specific ideology. Games are metaphoric because they are considered art, or the other way around. Thus, the distinction between metaphor and simulation seems to be primarily ideological itself. From this observation, one can assume that the art context makes it more likely for games to be considered metaphoric. As long as the use of the notion of metaphor is not reflected on within this discourse, it will have to be observed with a good amount of suspicion.

It might sound surprising, but it is not only the special discourse of games with an agenda or more specifically artgames that are faced with the problem of making a convincing distinction between simulation and metaphor. Hence, in the following, I will show that the notion of metaphor has mostly been used in opposition to simulation in the study of computer games so far. I will further try to point out how metaphor and simulation are understood by the authors and try to critically investigate if the distinctions made are sufficient in order to make use of the two different concepts.

4.1.2 Metaphor in the general discourse of game studies

Apart from the specific relation of the notion of metaphor to artgames, one can observe that the notion of metaphor has very often been conceptualized with regard to simulations. In the following, I will present three approaches relating metaphor and simulation which are not intentionally framed within a games-as-art discourse.

4.1.2.1 Games as continuum between metaphor and simulation – Crawford (2003)

For the game designer Chris Crawford, simulation and metaphor are two different modes in which games always already refer to reality (the term "reality" is not further defined by Crawford). He is convinced that "all play in some sense represents something from the non-play universe" and that "play is metaphorical" per se (Crawford 2003, 29). (Crawford applies the term "play" instead of "game," which can lead to confusions. In his examples, however, he always refers to game objects. That is why I will understand his utterances as primarily related to games.) It seems that Crawford also experiences a confusing conceptual similarity between metaphor and simulation when claiming that we often misconceive those aspects of a game as simulations which are in fact metaphorical (Crawford 2003, 29). Games certainly do represent reality by means of simulation. Combat flight simulators such as *Battle of Britain* (TalonSoft 1999) and *Secret Weapons of the Luftwaffe* (Lucasfilm Games 1991) certainly refer to the real world by mimicking the physical behavior of the airplanes in an equally physically realistic world – to this extent, we can certainly speak of a reference to reality. Nevertheless, Crawford subordinates simulations to metaphor with regard to games. Crawford's argument is based on the high degree of detail and realism – a feature often associated with simulation, as, for instance, in the games-as-art-discourse, as sketched before – which would be disturbing for games and make especially the experience of realistic air combat rather boring.

As opposed to a pure air combat *simulation,* "a good air combat *game* will twist reality around to emphasize the emotionally significant parts" which are obviously found in the combat (Crawford 2003, 30 italics by me). Not drawing on any specific theory of metaphor, Crawford emphasizes in particular the reductionist aspects of metaphor as opposed to an assumed

accuracy of simulation. The metaphorical aspect of this simulation game thus consists of highlighting the combat elements and hiding other elements of aerial warfare.

Opposite to this "metaphorical" simulation, Crawford places an idea of a pure metaphor. *Space Invaders* (Midway 1978) is not considered a simulation by Crawford, as little monsters marching back and forth in the sky are not plausibly simulating anything from the real world (Crawford 2003, 30). Instead, he declares *Space Invaders* a metaphor for the frustrations of the single individual in society.

All in all, Crawford seems to conceptualize metaphor and simulation as the poles of a continuum with very realistic and detailed simulations on one end and metaphor, which refers to unrealistic games like *Space Invaders*, on its other end. In between these poles, one can find air combat games, which contain realistically simulated elements (e.g. airplane physics) as well as unrealistic reductions, abstractions and condensations (Verdichtungen) (e.g. focus on the pure combat activities). Furthermore, one can read in Crawford's words the idea that games which do not seemingly contain realistic elements, like *Space Invaders,* necessarily have to be interpreted metaphorically; otherwise they would not represent something from the non-game universe – a fundamental property of games according to Crawford's initial claim.

One can see from the use of the notion of metaphor by Crawford that he applies the distinction literal/non-literal to games by distinguishing quasi-realistic simulations from unrealistic metaphor games. Crawford thereby emphasizes the two different modes of representation of the world, which games are always already part of and which they always already refer to. However, one can ask, is Crawford's distinction between metaphor and simulation more than a simply pragmatic distinction? For the case of *Space Invaders,* one could easily say that it simulates the issue of social rules and institutions being directed against the individuals in a society. Couldn't this be the model which the simulation is based on?

4.1.2.2 A complementary relation between metaphor and simulation – Robinett, Salen and Zimmerman (2004)

Similarly to Crawford, Salen and Zimmerman (2004) consider the relation between metaphor and simulation as complementary, and they assume that games can always be seen as simulations of something, regardless of how abstract they are. As such, chess and *Tic Tac Toe*

supposedly simulate territorial conflicts and *Tetris* (Pajitnov, Gerasimov, and Pavlovsky 1984) simulates some kind of gravity (Salen and Zimmerman 2004, 424–425). This idea is derived from game designer Warren Robinett, who is equally convinced that computer games were generally to be considered "simulations, models and/or metaphors" (Robinett in Salen and Zimmerman 2004, 423). For Salen and Zimmerman "a *simulation* is a procedural representation of aspects of 'reality'" (Salen and Zimmerman 2004, 423 italics in original). "Procedural," as the authors explain, can be considered "a shorthand for all the process-based ways that a game can signify" (Salen and Zimmerman 2004, 427). Those processes emerge from:

a) "the functioning of a computer program's AI,"

b) "players following the rules of a game," as well as

c) "an expressive core mechanic that references a particular action outside the game" (Salen and Zimmerman 2004, 427).

Here one can see from the opposite point of view that Salen and Zimmerman use the notion of procedural representation as the definition of simulation, as opposed to Bogost, in whose writings the notion marks the move away from simulation to proceduralism and metaphor (Bogost 2007a, 9). Whereas the notion of procedural representation for Salen and Zimmerman designates the general way in which games signify through processes, Bogost makes this claim specifically for the procedural rhetoric of persuasive games.

Moreover, Salen and Zimmerman add to their notion of simulation the notion of metaphor, saying "as representations, simulations often represent metaphorically, meaning they can create representations in non-literal ways" (Salen and Zimmerman 2004, 427). They demonstrate the relation between simulation and metaphor with the example of *Ace of Aces* (Leonardi 1980), a two-player air combat simulation whose game state is represented on the respective page of a paperback book. Depending on the specific action that a player chooses to play, a different page becomes actualized and, hence, a different game state is represented. Each player gets an individual copy and can actualize the game state accordingly.

Whereas the simulation is based on a mathematical model of air combat – and therefore represents reality by virtue of its rule set – the game actions as well as the game experience are considered metaphorical. Specifically, the difference between the core game mechanic (turning

pages) and its simulated referent (piloting an aircraft) are seen as a metaphoric difference of two different domains, which interact with each other during the playing of the game. As such, the core game actions consist of a) the decision for a specific game action (e.g. fly a slow 130-degree curve backboard) and b) the performance of this game action i.e. opening the book page with the corresponding page number (e.g. opening page 213). As opposed to a flight simulator, which is used for the training of fighter pilots, the game actions (turning the pages) of *Ace of Aces* are strikingly distinct from sitting in a cockpit and piloting an aircraft. For instance, the continuity of space and time is cut into discrete states, and, because of its turn-based nature, the duration of a turn can potentially be indeterminate. This is dissimilar to the quick series of decisions and actions necessary in real air combat or in a real-time air combat simulation. In the case of *Ace of Aces* especially, the experience of playing the game will significantly deviate from the experience of really controlling an aircraft in air combat.

Whereas Crawford conceptualizes metaphor and simulation as a continuum, Salen and Zimmerman support the very similar idea of a complementarity between metaphor and simulation. Aspects which are not literally "simulatable" because of technical or material constraints are simulated in a non-literal way which is considered metaphorical. Both Crawford and Salen and Zimmerman apply "metaphor" to signify the less mimetic and more abstract aspects of simulations in order to distinguish these from more mimetic and less abstract simulations.

4.1.2.3 Metaphor and simulation in Juul (2005)

Finally, Jesper Juul, the author of *Half-Real* (Juul 2005), also focuses on metaphor in immediate textual proximity to his discussion of simulation in the mentioned work. As is known, Juul considers digital games ontologically as consisting of the combination of two fundamental aspects: rules and fiction. A simulation is, according to Juul, "the implementation of a fictional world into the rules of a game" (Juul 2005, 170). Here the audiovisual signs of the game represent the fiction. These signs are supported by the rules. This support makes *FIFA 2002* (Electronic Arts Canada 2001) appear as a simulation of association football. One can say the fictional part consists of the representation of a certain real-world process (football) which raises the expectations that it also functions like the represented real-world

process. This expectation is then more or less satisfied depending on the simulation's degree of fidelity compared to the source process.

Apart from simulation, Juul additionally applies the concept of metaphor. As such, he analyzes the serve in the tennis simulation game *Top Spin* (Indie Built and Power and Magic Development 2004) which is distinct from the serve in real-world tennis. In the game, the player has to keep a button on the game controller pushed and release it as soon as an oscillating (up and down) marker is placed in the center of the serve indicator. According to Juul, the computer game serve is significantly distinct from the real-world activity. However, both activities also share a significant commonality – both are *difficult* (for inexperienced and untalented users). The substitution of the real-world activity by the described computer game activity is the reason for Juul to state that "the video game activity is a metaphor for the tennis activity" (Juul 2005, 173).

Juul identifies another metaphor in the game *Puzzle Pirates* (Three Rings Design 2004), in which pirates occasionally engage in duels. However, instead of a simulated sword duel, the players have to play a puzzle à la *Bejeweled* (PopCap Games 2000) or *Tetris* (Pajitnov, Gerasimov, and Pavlovsky 1984) against each other. Here, the expectation of a simulated sword duel which is raised by the fiction of the pirate world is deliberately not satisfied and substituted by a metaphor instead. This metaphor does primarily share a possible unequal outcome (dividing the participants into winners or losers) with a sword duel (Juul 2005, 173).

Juul applies the concept of metaphor consciously in terms of the substitution view of metaphor (Juul 2005, 173). In *Top Spin* the serve is substituted, due to technical limitations, by another activity. In the case of *Puzzle Pirates*, however, one could have easily simulated a sword fight which might have better satisfied the expectation raised by the fiction. The decision to simulate a puzzle combat instead might have had other motivations, such as abandoning all sorts of representations of violence due to the target group of young players. Depicted and simulated violence would, to some degree, be part of a sword fight simulation. Another reason to implement a puzzle combat instead of a sword fight could have been the desire for a creative alternative.

Whereas my interpretation of Juul assumes that he conceptualizes a strong difference between the simulating system and the simulated system as metaphoric, Juul himself emphasizes the metaphoric aspect of games in a similar fashion to Salen and Zimmerman. He suggests that

"the player's real-world actions have a metaphorical relation to the fictional in-game action: Pressing of a controller button at the right time means making a perfect serve" (Juul 2005, 196). If this, however, is the metaphorical aspect of a tennis simulation, then Juul himself suggests indirectly but pretty strongly that simulations are always metaphoric in one way or the other.

Consequently, in Juul's two cases, as well as in the cases presented by Salen and Zimmerman and Crawford, one can legitimately ask: Aren't the phenomena which are called "metaphors" in fact simulations, too? In the case of Juul's tennis serve, one might say that not the whole activity of a tennis serve is simulated in detail, but the simulation focuses instead on its difficulty. The same goes for the sword fight in terms of a puzzle, as the puzzle simulates the difficulty of a sword fight as well as other agonistic aspects like a certain material resistance against the player's actions.

Juul himself makes an interesting point against the common view of simulations, which are often (mis-)understood as the most realistic and detailed modeling possible (see e.g. Dormans 2011, 613, who speaks of an iconic simulation when it "closely resembles the source system"). On the contrary, Juul argues that simulations:

a) can differ strongly from the original depending on their degree of *fidelity*,

b) are usually *stylized*, meaning they highlight some aspects of the simulated and conceal others, and

c) they *simplify* (Juul 2005, 170).

Thus, computer games seldom implement a highly realistic simulation of real-world phenomena (arguable exceptions might be *Flight Simulator X* (Microsoft Game Studios 2006) and *Falcon 4.0* (MicroProse Software 1998)) but usually constitute an always already stylized and simplified model with a higher or lower degree of fidelity to the simulated phenomenon. Salen and Zimmerman point, with Robinett, at the fact that simulations are abstractions by definition, and therefore always already limited in their capacity to represent mimetically (2004, 439).

4.2 The metaphor–simulation dilemma

In the beginning, I traced the metamorphosis of the notion of simulation into a notion of metaphor especially in so called proceduralist artgames. The problem is that the notions of simulation and metaphor do no differ sufficiently. Consequently, the suspicion that the notion of metaphor is used for ideological reasons in order to let certain games appear artistic cannot clearly be dispelled, primarily because of a lacking reflection on the term metaphor itself.

Having said that, it seems that an implicit ideology is not the only problem I am dealing with, as the discussion of metaphor and simulation within the more general game studies discourse has shown. With regard to Juul's three characteristics of a simulation (simplification, stylization, and fidelity) one can argue that all described cases of metaphor can be considered simulations as well. Crawford's idea of the game as being always already metaphorical can be considered a logical consequence of Juul's characteristics of simulations (by virtue of its reduction, abstraction and condensation of aspects of the source system in order to provide a compelling game experience). Hence, a game simulation appears necessarily less realistic than, for instance, a scientific simulation is supposed to be. With Bogost, one can make a distinction between (scientific) computer simulations and simulation games (Bogost 2006a, 96–99). The former claim to be more precise than the latter since they are created for different purposes (computer simulations = scientific rigor vs. game simulation = entertainment). Thus, game simulations do not have to be as precise as scientific simulations; still, they claim to some degree to represent phenomena of the world, too, which is an essential motivation to play such games. At any rate, even among game simulations the distinction exists between simulations with more and fewer simplification, stylization, and fidelity, qualifying the former as metaphors and the latter as simulations.

As such, Salen and Zimmerman, with Robinett, regard non-literal simulations (e.g. alteration of materiality) as metaphorical, due to their having very little in common with the simulated. Juul's examples of metaphor can be considered game simulations, too. The sword fight in terms of a puzzle simulates aspects of competition, and the tennis serve simulates the difficulty of the real-world tennis serve. The same goes for Crawford's examples of *Space Invaders*.

It also appears that particularly semiotically abstract games tend to be called metaphoric. However, Jason Begy has shown that even semiotically very abstract games can also be

considered (game) simulations. Accordingly, he considers *The Marriage* a simulation, even though it is semiotically abstract, since the game communicates its topic through several paratextual elements, such as its title and the designer's statement (Begy 2010, 29). In other words, simulations reduce the simulated to a larger or smaller degree always already by definition. Moreover, within the discourse of proceduralist artgames, the notion of abstraction is omnipresent. Bogost uses the adjective "abstract" ten times within five out of seven pages reserved to discuss artgames, and the noun "abstraction" another five times (Bogost 2011, 12–16). It is therefore thinkable that not only the notion of metaphor but, perhaps even more, the notions of abstraction is used to frame the respective proceduralist games in the discourse of (abstract) art[50]. In addition, there also is a distinction between abstract (adjective) art and the inevitable abstraction (noun) of all other kinds of representations, such as simulations, paintings, etc.[51] However, as we have seen, simulation applies abstraction, too, given that one understands abstraction as "the action of taking something away; or process of withdrawing or removing from a larger quantity or whole" (OED Online 2011b). Therefore, it is difficult to say which degree of abstraction defines the point at which a game stops being a simulation and starts being a metaphor. Eventually, the degree of abstraction seems not to be a very good distinction between a game as a simulation and a game as a metaphor.

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[50] The recurrence of the verb "abstract" as an essential indicator for so-called artgames in order to position them within the art discourse is lacking theoretical foundation, too. In art discourse long before computer games abstraction (as in abstract art) evolved as an internal distinction and reaction to realism within the realm of art. For Bogost, "*art* doesn't have any sort of stable meaning in contemporary culture anyway" (Bogost 2011, 9). He refers to the artistic avant-garde emerging in the early 20th century, in which art was defined by the context in which it was placed rather than by matching ontological definitions (Bogost 2011, 10). Nevertheless, very abstract forms – especially in painting – were characteristic of movements within the avant-garde such as futurism, Dadaism, expressionism etc. Obviously, these movements were an intentional delimitation from naturalism beforehand. Despite Bogost's post-modern understanding of art, and his observation that "it [the notion of artgame, S.M.] is a stand-in for a yet unnamed set of movements or styles, akin to realism or futurism" (Bogost 2011, 12), he picks the specific style of proceduralist artgames to account for a way in which games can be art. However, especially when explaining the specific style of these games, Bogost often refers to the semiotic abstraction of these games, and therefore seems to transfer the distinction from the art discourse to the (art)game discourse. However, in the history of computer games, semiotic abstraction has always existed before any games representing some kind of realism or naturalism came up. In fact the semiotically abstract game is the realism of computer games. Consequently, so called artgames are rather a renaissance if not a nostalgia of what had already existed in games.

One can conclude so far that the term "metaphor," when applied in textual vicinity to simulation in the broader discourse of game studies, is itself used as a metaphor for an abstract, reduced, condensed and thus somehow unrealistic *simulation*. In other words, the term metaphor is mostly applied when one actually speaks of a simulation. Thus, the opposition of both terms appears questionable, and it seems that game studies are faced with what I call the metaphor-simulation dilemma.

The just-observed dilemma is supported by the fact that simulation and metaphor share almost identical definitions, as a comparison between definitions for metaphor and definitions for simulation shows.

Cognitive metaphor researchers Lakoff and Johnson define metaphor as follows:

> "the essence of metaphor is *understanding* and *experiencing* one kind of thing in terms of another" (Lakoff and Johnson 2003, 5).

The rhetorician Kenneth Burke has a very similar take on metaphor:

> "Metaphor is a device for seeing something in terms of something else. It brings out the thisness of a that, or the thatness of a this" (Burke 1941, 421–422).

When adding definitions of simulation, the similarity between metaphor and simulation becomes apparent. For instance, the philosopher of science Stephan Hartmann says:

> "a simulation *imitates* one process by another process" (Hartmann 2005, 5, 17).

In game studies, a similar notion of simulation has been coined by Gonzalo Frasca:

> "to simulate is to *model* a (source) system through a different system" (Frasca 2003a, 223).

As already discussed, Bogost applies the term "procedural representation" instead of simulation. Given that Salen and Zimmerman define a simulation as "a procedural representation of aspects of 'reality'" (Salen and Zimmerman 2004, 423), one can understand Bogost's phrase as a definition of simulation, too. Bogost writes:

> "procedural representation *explains* processes with other processes" (Bogost 2007a, 9).

As I have already shown, Bogost himself might have difficulties in deciding whether and how procedural representations as simulations are different from proceduralism operating with metaphor (2011, 17).

The dilemma is completed by a similarity of terminology. Andreas Gregersen (2008) recognizes a similarity between Frasca's definition of simulation and Gilbert and Doran's definition of simulation (which Gregersen erroneously assigns to Dovey and Kennedy 2006, 11–12), in that Frasca speaks of a "(source) system" as that which is simulated and Gilbert and Doran speak of the same thing as the "target entity" (Gregersen 2008, 167). Gregersen solves this problem by suggesting we speak of "target" when referring to the "original system" and of "model" when referring to the "simulating model" (Gregersen 2008, 167). What is striking with regard to the metaphor-simulation dilemma is the overlap in terminology. In the cognitive linguistic view on metaphor, it is common to speak of metaphor as consisting of a source and a target domain in which the latter is understood in terms of the former. In this regard, one speaks in both cases, simulation and metaphor, of source and target entities.

Apparently, all presented definitions for simulation and metaphor are very similar. Taking John Conway's simulation *Game of Life* as described by Bogost (2006a, 95–98), we can say it is one system or process which *imitates*, *models*, or *explains* another system or process, but we can just as well say it makes us *understand*, *experience*, and *see* something (life) in terms of something else (the simulation *Game of Life*). If it is true that there is always a difference between the simulation and the simulated, as is indicated in the definitions of simulations by the deliberate discrimination of the involved entities (*another* process, a *different* system, *other* processes), one can assume that simulation has a certain affinity to metaphor.

Simulations could, however, also be considered a subclass of metaphors. That which is "one kind of thing" in the case of metaphor is called a *process* or a *system* in the case of simulation. It is only slightly more concrete than "some kind of thing." A process, for instance, always implies temporality, as it consists of a change of states over time according to certain rules which in turn implies a rule-based *system* whose states can change.

This comparison suggests that simulations could generally be considered metaphors applied specifically to systemic and procedural things, such that they are always already metaphors due to a similarity in structure. In this case, however, we would use metaphor and simulation interchangeably, which implies the mentioned dilemma that one is the other – a dilemma

which can only be solved by deciding for either metaphor or simulation, and giving up the other notion. In addition, this would mean that we use metaphor in terms of a broad notion of metaphor.

4.3 Three suggestions to reconcile metaphor and simulation for game studies

In short, the problem is the lack of a satisfactory distinction between metaphor and simulation which can dispel doubts concerning implied ideologies in the use of the notion of metaphor, as is the case, as I have demonstrated, with artgames. However, as we have seen, the unsatisfying distinction between metaphor and simulation is not only a problem within the artgame discourse. The observations in the general game studies discourse suggest that the problem is of a more general nature and is not limited to the aforementioned discourse. The comparison between definitions of metaphor and simulation finally suggests that metaphor and simulation are in fact very similar things, and indistinguishable with regard to their use.

In the following section, I will make three suggestions which represent my effort to understand the use of the notion of metaphor with regard to simulation games and artgames, and reconcile the use of the notions of metaphor and simulation in order to preserve the usefulness of the terms 'metaphor' and 'simulation' for the analysis or description of computer games.

The first suggestion takes into account the fact that simulation games are often called metaphoric when one refers to their reductionist or abstract character. I will suggest a consideration of simulation games as well as artgames as essentially synecdochic, since authors usually refer to their character as representations when applying the notion of metaphor.

The second suggestion claims, from the perspective of semiotics, that the metaphor-simulation dilemma exists partly due to the assumption that both - simulation games as well as metaphors - are primarily based on similarities between the simulating and the simulated, or the source and the target domain. The argument will take into account the fact that simulation games are traditionally conceptualized as iconic signs à la Peirce in game studies (Begy 2010; Bogost 2006a; Dormans 2011; Frasca 2001b; 2003a). However, the similarity depends on the conceptualization of simulation games as either iconic or symbolic signs, and the allocation of interpretational power (to either designer or user) if potentially

everything can be a simulation of something in some respect. Based on these assumptions, I will suggest a formal distinction between a first-order and a second-order simulation. The latter transforms into the former when sufficiently conventionalized over time within a community of simulation users.

Finally, I will suggest taking the perspective of philosophy of science and cognitive metaphor theory into account and considering metaphor and simulation games similarly because they are both related to models. It suggests that simulation games can be based on metaphorically structured concepts of our everyday understanding of the world. This contains implications for the use of the notion of metaphor with regard to artgames as well as simulation games.

4.3.1 Simulations are essentially synecdochic

The notion of metaphor instead of simulation is used particularly when authors want to emphasize a simulation's nature to reduce, abstract, and simplify (Bogost 2011, 12–16; Crawford 2003; Juul 2005, 170). This idea is obviously based on an underlying positivism which assumes that one could verify degrees of abstraction, reduction, and simplification between the simulated and the simulating, and therefore distinguish between simulation and metaphor.

From this perspective, I hold, simulation games as well as artgames should generally be understood as representations, and therefore as always already synecdochic. Consequently, it becomes redundant to emphasize their metaphoricity with regard to reduction, simplification and abstraction, since this is a common trait of all representations. Hence, in this perspective, the synecdochic is one essential mode of representation, and is therefore valid for the general game studies discourse regardless of the distinction between artgames and simulation games.

Synecdoche is by some considered "a special case of metonymy" (Lakoff and Johnson 2003, 36), wherein metonymy is a figure of relation (Lakoff and Johnson 1980, 35) or close association (Chandler 2007, 129) in which the two associated entities usually belong to the same semantic or conceptual domain. That is, the representing element and the represented element are in some way related to each other. Examples of such relations might include effect for cause, object for user, place for event, place for person etc. (Chandler 2007, 129). Synecdoche, hence, describes the special relation of part-for-whole in which a part represents

the whole which it itself belongs to. We say, for instance, "the *White House* declared today," and mean the whole U.S. government of which the institution as well as the building are parts. Others understand synecdoche additionally as the whole-for-part relationship (e.g. Burke 1941, 426). The suggested perspective can be argued for with four arguments, consisting of a rhetoric argument, a reduction argument, a representation argument, and a one-domain argument.

According to the rhetoric argument, the problem at hand is due to a broad understanding of metaphor as opposed to a narrow understanding, a distinction which I have already referred to in section 2.1. To refresh our memory: in the broad sense, the notion of metaphor is used to account for "all figures of speech" (Nöth 1995a, 128) and only in the narrow sense does it denotes a specific figure of speech. Following the narrow sense, we have to call the reductionist aspects of simulations synecdochic according to its part-for-whole structure. This view is further supported by rhetoricians such as Kenneth Burke, who considers the four master tropes – metaphor, metonymy, synecdoche, and irony – as a conglomerate whose elements "shade in one another" (Burke 1941, 421). Burke equates the tropes with their "realistic applications" and pairs metaphor with perspective, irony with dialectic, synecdoche with representation, and metonymy with reduction (Burke 1941, 421). From this point of view, each metaphor contains some elements of irony, synecdoche, and metonymy, in that it contrasts, represents and reduces that which it provides a perspective upon. Additionally, Lakoff and Johnson's definition of metaphor as "understanding one kind of thing in terms of another" is too coarse-grained, since it counts equally for almost all kinds of tropes and rather emphasizes their representational, rather than rhetorical, character.

The representation argument is further supported by the semiotician Daniel Chandler, who considers every representation of reality (no matter if procedural or static) synecdochic since it necessarily involves a selection and can therefore only represent parts of the whole (Chandler 2007, 133). Representing the whole with a part and consequently reducing it thus seems to be the most obvious characteristic of simulations, as this applies to scale models as well as to other kinds of simulations and representations.

For game simulations, the reduction argument is best illustrated by Bogost's observation that "a simulation is a representation of a source system via a less complex system […]" or "simulation represents the real world *in part*, but not in whole" (Bogost 2006a, 98, italics in

original). Whereas Bogost's first definition is supported by systems theory, according to which systems do always already imply a reduction of complexity (see Luhmann 1995), his second definition contains the synecdochic part-for-whole relationship. To sharpen the reduction argument, however, one has to take into consideration what I have already argued in Chapter 3, namely that a representation most importantly depends on its difference from the represented. Being different implies that only aspects can be represented which the representing has itself. However, this also implies that the differentness of the representing can add features which are not part of the represented. As such, one can only speak of a part-for-whole relationship when accounting for those characteristics of the represented which are arguably part of the representing. But it is equally possible to speak of a whole-for-whole relationship in which one whole represents another whole but only in a certain regard.

Finally, there is the one-domain argument which advocates the notion of synecdoche instead of metaphor. Following cognitive metaphor theory, metaphor associates two distinct conceptual domains – unlike synecdoche, which, as a subset of metonymy, is a figure of contiguity involving only one conceptual domain (Kövecses 2010, 175–176). For instance, the White House and the U.S. government belong to the same conceptual domain, which could be called "governing institutions."

Both definitions, of simulation as well as of metaphor, require the interaction of two different concepts. In the case of *SimCity* (Maxis Software and Wright 1989) one might say the involved concepts differ in complexity but not in the domain they refer to. All concepts at play in the city simulation *SimCity* are based on *one* conceptual domain: urban dynamics(see for this example Salen and Zimmerman 2004, 439). Nevertheless, the user sees one kind of thing (the simulation – *SimCity*) in terms of something else (the simulated phenomenon – urban dynamics). We see the object in question as something which it is not. In the case of *SimCity* one can distinguish a *concept* of urban dynamics from an *implemented concept* of urban dynamics. It is known that *SimCity* creator Will Wright was heavily inspired by Jay Forrester's research on system dynamics as expressed in his book *Urban Dynamics* (Forrester 1999) (Pearce 2002). Forrester holds that a simulation model, even if concise and clear, "describe[s] only those characteristics of the real system necessary to give the behavior characteristics of interest" (Forrester 1999, 112). For the implemented concept of urban dynamics, one can certainly also

assume that it again reduces the complexity described by Forrester's concept of urban dynamics. Thus, it is merely a selection of the latter which is finally implemented in the simulation.

The implemented concept does not only depend on the characteristics of the available model, but also on its implementability into a simulator. The materiality of the medium which is used to run the simulation does have an influence on the aspects which are implementable, and might reduce these elements again. Concluding this discussion, we can say that, in *SimCity,* two concepts are at play – Forrester's concept of urban dynamics, and the implemented concept of urban dynamics. Forrester's concept of urban dynamics makes it possible to think of urban dynamics in the first place, and the implemented concept is a reduction of Forrester's concept of urban dynamics.

The same goes for the user of the simulation, who takes *SimCity* as a simulation of urban dynamics. However, the user does not know the whole implemented concept of urban dynamics, but is constructing what some have called a mental model (Bogost 2006a, 104; Frasca 2001c, 34–35; Laurel 2003) from her interaction with *SimCity.* Hence, the user will again only know parts of the implemented concept, and, thus, will take only these parts for the whole phenomenon contained in Forrester's concept. In fact, we can speak of a succession of part-for-whole relationships here – from the "real world" to Forrester to Wright to the player – in which only one concept is involved.

Consequently, when calling games metaphoric, and thereby focusing on aspects of reduction, abstraction, simplification etc., we have to consider *Battle of Britain* (TalonSoft 1999), *Secret Weapons of the Luftwaffe* (Lucasfilm Games 1991), *Ace of Aces* (Leonardi 1980), *FIFA 2002* (Electronic Arts Canada 2001), the fight in *Puzzle Pirates* (Three Rings Design 2004), and the serve in *Top Spin* primarily as synecdochic, since this perspective emphasizes a game's character as a representation. The same goes for procedural artgames, which differ from simulation games only in the degree of reduction, abstraction, and simplification. For this section, one can conclude that artgames as well as simulation games are called metaphoric due to their being considered representations. Yet, the notion of metaphor in this case is applied as a synecdoche for most tropes/figures of speech. The master tropes can be considered essential modes of simulations, with an emphasis on synecdoche, which accounts for a game's status as a representation. The disadvantage of the latter view is that the tropes are again only

used as synecdoche for the representational archetypes of perspective, reduction, representation and dialectic.

4.3.2 The problem of similarity and the interpreter

The previous discussion suggests considering simulations as essentially synecdochic when they are understood as representations. This aligns with the observation that game simulations as well as artgames are traditionally understood as representations in terms of Peirce's semiotic triangle. The following suggestion takes two problematic elements into consideration that are often associated with simulations but also with metaphors: similarity (analogy, iconicity etc.) and dependence on an interpreter. Based on these considerations, I argue for a distinction between a first-order simulation and a second-order simulation, where the latter equals a metaphoric simulation.

4.3.2.1 Simulations as (iconic) signs

As shown, Frasca developed his model of simulation according to a simplified version of Peirce's sign model (Frasca 2003a, 223). From a semiotic perspective, he considers simulations as being a sign. According to Peirce's model, one can thus say that the simulation is the *sign/representamen* (the simulating) which stands for an *object* (the simulated) and thus represents it. In order to function as a simulation, the *representamen* has to be recognized as representing the *object* by an interpreter, which results in an *interpretant*. Frasca emphasizes in particular a similarity in behavior between the simulating and the simulated. This means that simulations do not only share certain audiovisual similarities with the simulated, but are first and foremost similar in terms of a certain behavior. Although he takes the position of an interpreter into consideration, Frasca's emphasis lies on the simulating object and its relation to its simulated referent via a similarity in behavior.

In terms of Peircean semiotics, simulations have been termed iconic (Dormans 2011; Dormans 2012). For Dormans, however, an iconic simulation requires the simulating to possess a high degree of realism or fidelity to the simulated. Usually, however, an iconic

relation exists already if a representamen is "similar in possessing some of […] [the] qualities" of the represented object (Chandler 2007, 36).

Here a problem occurs which is similar to the one implied in calling simulations metaphors when referring to their natural tendency to abstract, reduce and simplify. Just as one cannot tell the degree of abstraction which divides a simulation from a metaphor, the notion of iconicity does not determine what degree of similarity some behavior has to have to some other behavior in order to stand in an iconic relation to it. The definition by Chandler says that "some" of the qualities are similar. But how does one evaluate the number of these qualities and their degree of similarity? Where exactly is the border between metaphor and simulation, and who decides how a simulating is similar to the simulated?

For the first part of the question, it needs to be mentioned that iconicity and similarity are heavily debated topics in semiotics. For example, the semioticians Nelson Goodman and Umberto Eco reject the idea that similarity should be definitional for iconic signs. Eco even sees pictures (idealtypical icons) as "arbitrary or conventional" and thus not necessarily as objective iconic signs (Sönessen 1998, 295).

This leads to the second part of the question, for which one has to focus on the interpreter's point of view.

4.3.2.2 Simulations depend on an interpreter

With regard to simulations in game studies, the interpreter is a position strengthened by Bogost's statement that a simulation "informs the user's understanding of the source system in a subjective way" (Bogost 2006a, 98). According to this definition, the user can only consider a simulation as being based on a different system inasmuch as she is subjectively able to recognize it. This shows how problematic the aspect of similarity is, as there is perhaps little objective means to decide this.

For Begy, a simulation depends in the first place on authorial intent, and the communication of the simulated to the user through paratextual means in case of a semiotically very abstract simulation (Begy 2010, 29). According to Begy, the alleged artgame *The Marriage* is a simulation, despite the fact that many people, such as Doris Rusch, have problems recognizing the similarity between the game and its referent (2009) without its paratextual

contextualization, since the game consists merely of squares (interpretetd as depicting a couple) moving through the game space (which is filled with circles), changing their dimensions and their degree of opacity. Begy's focus on these two aspects (authorial intent and paratextual means) entails the consequence that all kinds of procedural objects (or phenomena) can be considered simulations given the right authorial intent. This intention then has to be made explicit to an uninitiated interpreter (user). In line with this, Gregersen claims "that any system can be seen as a simulation from the outside due to its partial fit with a target domain" (Gregersen 2008, 169). Partial fit is a concept which Gregersen derives from the philosopher of science, Ronald Giere (Gregersen 2008, 161). Instead of assuming any pre-existing correspondences or similarities between the simulated and the simulating, the concept of partial fit implies that the simulating fits the simulated in some respect partially depending on the purpose of the simulation. For both Begy and Gregersen, a simulation is not necessarily defined by any objectively pre-existing similarity, fidelity, resemblance etc. but rather by an interpreter (no matter if this is the designer or the user) who considers something a simulation and thereby projects the iconicity onto the simulating rather than deriving it from there.

For instance, for the case of *SimCity* and its representation of urban dynamics, for most players it should be difficult if not impossible to evaluate to which degree of similarity or fidelity the game simulates urban dynamics – most people will lack sufficient knowledge about this topic. However, even somebody who knows about Forrester's theory of urban dynamics can only estimate the similarity of the game to the model of urban dynamics. As such, most users will have to accept that *SimCity* simulates urban dynamics as part of a symbolic convention. It is even thinkable that most people who were born in the 1990s and later, and who had access to computer games such as *SimCity,* actually shaped their understanding of urban dynamics according to the structures presented by the game. If they tried to assess the similarity between *SimCity* and their understanding of urban dynamics, they would end up in a tautology. As such, Sherry Turkle writes "the games of the Sim series [*SimCity, The Sims* etc.], first introduced in the early 1990s, socialized a generation of children into the culture of simulation" (Turkle 2005, 12). This is why I believe that the aspect of similarity of simulations might perhaps be most useful when comparing different simulations of the same phenomenon at a time and assessing to what extent they resemble or differ from each other. As such, it seems easier to compare the recent installment of *SimCity* (Maxis Software 2013)

with the original *SimCity* for similarities and differences, or with other simulations of urban dynamics such as *Cities in Motion* (Colossal Order 2011) and *Cities in Motion 2* (Colossal Order 2013); it is to be assumed that the similarities within instances of the same series are probably more obvious. Interestingly, Turkle assumes that we live in a "culture of simulation" which requires a certain "literacy of simulation" (Turkle 2005, 14). In line with that Michael Mateas (2005) and Bogost (2007a, 233–260), Turkle suggests a so-called procedural literacy, writing that:

> "citizenship in a culture of simulation requires that you know how to rewrite the rules. You need tools to measure, criticize, and judge every simulation. Today's teenagers are comfortable as inhabitants of simulated worlds, but most often, they are there as consumers rather than as citizens. To achieve full citizenship, our children need to work with simulations that teach about the nature of simulation itself" (Turkle 2005, 14).

Apart from this ideal desire to foster the capacity of self-determination while engaging with simulations, the idea of a culture of simulation contains something else. Firstly, with Hacking, (see chapter 3) one can object that it is tautological to speak of a culture of simulation, since the capacity for simulation, and, therefore, representation (mimicry and mimesis) is perhaps the basis of human culture as such. Secondly, one can also understand Turkle's idea of a culture of simulation as a specific way of simulating which has emerged out of a historic development and is accepted as conventional by a certain group of people. One can assume that, within culture as a whole (which is that which distinguishes humans from most animals) there exist certain subcultures with particular approaches to representation and simulation. It is thus possible to understand the notion of a culture of simulation as being based on certain conventions regarding how to simulate. This implies a strong emphasis on simulation as a matter of cultural convention, and, as such, as a decidedly symbolic matter, in that the relation between a simulating and a simulated relies on a convention in the first place. Consequently, any procedural phenomenon (from extremely arbitrary to fully iconic in the Peircean sense) could be declared to simulate something else, given that somebody (or a group of people) is making the connection between the simulating and the simulated and can argue for some sort of similarity (but not for a certain degree of similarity). The way in which a simulating simulates depends also on its specific characteristics (implemented rules/procedures,

materiality etc.). This perspective puts a simulation author (designer) and a simulation user in the same position with regard to the simulation – both have to interpret it as such. If I take a chess game as a self-contained procedural object to simulate my life, I am simultaneously the author and the user of this simulation of my life.

The consequence of this perspective is that we cannot distinguish between metaphor and simulation based on the degree of similarity or abstraction. Instead, one can simply speak of simulations for all cases. For the semiotic conception of simulation games as well as artgames, this implies that both can be iconic if the simulating objectively resembles the simulated to some degree. However, emphasizing once again the position of the interpreter/user, even an objectively arbitrary and therefore symbolic relationship between simulating and simulated can become iconic in a functional sense. Namely, when a user declares any random procedural object to be simulating something else, she makes it iconic, since it functions as a simulation without any pre-existing similarity.

Additionally, there is another problematic implication of the semiotic view on game simulations. When being considered an iconic sign, no matter if objectively or subjectively iconic, the similarity allegedly exists between the representamen of the sign (simulating) and its object (simulated), or between the material sign and its referent. A metaphor, however, is not determined by the mismatch between representamen and object but by the mismatch between the conventional object of a representamen and an unusual object being associated with it. However, in most applications of the term metaphor, it is used to signify the seeming mismatch between the representamen and its object. Since neither the degree of abstraction nor the degree of similarity provides a useful distinction between simulation and metaphor with regard to simulation games and artgames, I suggest we should not distinguish between these terms any further with regard to similarity, since the elements of reduction and similarity are not the decisive characteristic elements of simulations. Focusing on aspects of similarity and reduction is missing the point when speaking about the ontology of simulations, as I will argue in the following section.

4.3.3 Simulations are primarily dynamic and process-based

One overlooks the most important character of simulations when trying to ontologically define them via reduction or similarity between the simulated and the simulating. More important than the question of whether a simulation represents iconically, symbolically, or metaphorically is that of whether a simulation represents procedurally in the first place. According to the philosopher of science, Stephan Hartmann, a simulation is distinct from other kinds of representations since it is based on a dynamic model of its object as opposed to static models (Hartmann 2005). This thought is present in Frasca's notion of simulation as "behavior" (Frasca 2003a, 223), in Salen and Zimmerman's notion of the "procedural representation" (Salen and Zimmerman 2004, 423) and in Bogost's notion of simulation as a "system" (Bogost 2006a, 98, 108) and later as the "process" in procedural representations (Bogost 2007a, 9). Games as such are thus close to simulation not because they represent something else but because they represent through processes – therefore, the notion of simulation is by some also used as a substitute for that of game mechanics or the game system which is "the hidden structure behind" what you can see in most computer games (Aarseth 2004, 52).

Therefore, I will suggest that the notion of simulation should be taken for granted for all computer games, due to their procedural character, and propose in the following to distinguish between a first-order simulation and a second-order simulation, of which the latter can be considered metaphoric.

4.3.3.1 First-order simulation versus second-order simulation (metaphor)

From the previous discussion, one can draw the conclusion that a simulating object can represent the simulated as arbitrarily as a symbolic sign due to a convention which imposes iconicity on it. Accordingly, every self-contained game object (Aarseth 2011) can simulate something else iconically if it is by convention determined to do so. Thus, the element of convention stabilizes the relation between the representamen and the resulting interpretant in the sign-model of a simulation.

In this regard, the self-contained game object of *Space Invaders* (representamen) simulates an alien invasion (object) if this convention (interpretant) is largely accepted in a community

using this sign as such. If we were to imagine that the self-contained game object of *Space Invaders* had never before been meant to represent anything else, we could consider this a first-order simulation.

A metaphor, however, is a meta-sign. It is a sign referring to other signs, and is therefore a second-order sign. A linguistic metaphor associates the conventional object of a symbol with a seemingly unconventional object through a change of context (Black 1954). A metaphoric simulation would then consist of the conventional alien invasion simulation *Space Invaders* being associated it with an additional object, i.e. putting it to use to simulate something else. Consequently, a metaphoric simulation must be a second-order simulation. This is what Crawford did when interpreting *Space Invaders* as a metaphor depicting the frustrations of the single individual in society (2003). As a metaphoric sign, it then relates the frustrations of the single individual in society with the alien invasion. The metaphoric simulation thus consists of a reinterpretation of the original simulation, which inevitably brings the two distinct objects (alien invasion and societal frustration) in an interaction as required by the interaction view of metaphor (Black 1954).

However, *Space Invaders* would be a first-order simulation of societal frustrations if it had never before been considered a simulation of an alien invasion. Imagine now if *Space Invaders* had become a highly conventionalized second-order simulation of societal frustrations, with its original referent getting marginalized in the community of its use. In this case it would become a so-called dead metaphorical simulation, and can soon be considered a first-order simulation.

Interestingly, Bogost discusses *Tax Invaders* (Republican National Committee 2004), a reskinned version of *Space Invaders*, as an example for ideological framings of procedural representations through metaphor, in that it is supposed to represent the frustrations of the tax payer (Bogost 2005; Bogost 2007a, 99–120). This case is a second-order simulation if it had been chosen to simulate the tax payer's frustration in the context of its being as a first-order simulation which always already simulates the alien invasion. However, if the game was only chosen because of its self-contained game object, it has to be considered a first-order simulation. As a second-order simulation, the game would have been supposed to associate the alien invasion semantics with the connoted societal frustrations (in a similar way, Bogost relates the alien semantics with conservative tax policy, as we will see in the following chapter

(Bogost 2007a, 99–120)). As a first-order simulation it is, however, primarily interested in associating the game mechanics of the self-contained game object with the tax payer's frustration.

Furthermore, a metaphor requires relating two distinct semantic domains with each other. Assuming Crawford had coined the first-order simulation of *Space Invaders* as a simulation of societal frustrations and then the producers of *Tax Invaders* determine it a second-order simulation of the tax payer's frustration, we can only speak of a synecdoche of the first-order simulation, since the tax payer's frustration is an element of the more general semantic domain of societal frustration.

Consequently, all self-contained game objects, no matter if they happen to be semiotically abstract artgames or detailed simulation games, are first-order simulations if their relationship to the represented is primordially conventionalized. However, they become second-order simulations, and therefore metaphors, when they are associated with an additional referent through a change of context. Over time, the latter can turn into dead metaphors, and their metaphoric or synecdochic character might not be recognized any more. This suggestion, however, depends largely on whether the interpreter considers *Space Invaders,* in this case, to be a simulation, ergo the fulfillment of Frasca's simulation triangle, or simply as a self-contained game object.

4.4 Model – the connection between metaphor and simulation

My final suggestion in dealing with the simulation-metaphor dilemma is to take a look at the notion of the model, which inevitably comes up when discussing simulation – either as a noun or as the verb "to model." This notion has been used as such by the authors already discussed (Frasca 2003a, 223; Salen and Zimmerman 2004, 423; Bogost 2007a, 43) and it has also been used to refer to some sort of "mental model" implied in the experience of simulations (Bogost 2006a, 102–106). With regard to the application of simulations in "financial and military planning, as well as in the natural and social sciences" Dovey and Kennedy consider simulations as being based on "a mathematically coded dynamic model" (Dovey and Kennedy 2006, 11). Nigel Gilbert and Jim Doran are social scientists referred to by Dovey and Kennedy who also say "that simulation is a process of modeling" (Dovey and Kennedy 2006,

11–12). Their formula of simulation as an epistemological means consists of a "target entity T" (e.g. urban dynamics) which is too complex to study directly. Thus, T is substituted with "another entity M, the model" (Gilbert and Doran 1994, 4 quoted in Dovey and Kennedy 2006, 12). For the model M, it is assumed that it "is sufficiently similar to T that we are confident that some of what we learn about M will also be true of T" (Gilbert and Doran 1994, 4 quoted in Dovey and Kennedy 2006, 12).

However, like the notion of metaphor, the notion of model is under-researched within the game studies discourse. It merely appears in terms of a mental model developed by the player with regard to simulation games (e.g. Bogost 2006a; Wright in Pearce 2002; Wright in Laurel 2003). In the following, I will demonstrate the similarity between model and metaphor, and suggest considering some simulation games as being based on metaphorically structured models.

Being "one of the principal instruments of modern science," the function of models within scientific knowledge production has become an important topic among philosophers of science (Frigg and Hartmann 2009). The philosopher Mary Hesse was one of the first to argue for the indispensability of models for science (Hesse 1966). With regard to simulation, and from the perspective of the philosophy of science, Stephan Hartmann observes that "models and simulations are apparently closely related," and suggests distinguishing between static and dynamic models – the former "covers assumptions about a system at rest" and the latter "includes assumptions about the time-evolution of a system" (Hartmann 2005, 2, 4). Simulations are consequently based on dynamic models, such that:

> "a simulation results when the equations of the underlying dynamic model are solved. This model is designed to imitate the time-evolution of a real system. To put it in another way, a simulation imitates one process by another process" (Hartmann 2005, 5).

The dynamic model can be considered the blueprint of a simulation containing variables and rules determining the interrelations of these variables. The simulation then is the actualization of this blueprint or the filling of variables with actual numbers. Clearly, games can be considered dynamic models when referring to some other phenomenon.

As indicated, it should be no surprise that the notion of metaphor is also related to the notion of a model. One of the first to make this connection was Max Black, in his essay collection *Models and Metaphors* (Black 1962a). As we have already seen, rhetorician Kenneth Burke argued for analogies between the master tropes and corresponding epistemic operations (Burke 1941, 421). For his argument, Burke uses examples from philosophy as well as the arts, and thereby suggests at least indirectly that the master tropes fulfill a number of functions: they are used to put into perspective, to represent, to reduce, and to contrast in everyday language and thought, as well as in poetry and in science.

Paul Ricœur refers to the "kinship between model and metaphor" (Ricœur 2003b, 283) when summing up Black's article "Models and Archetypes" (Black 1962b). Reporting the central argument of the text, Ricœur provides an analogy which helps to understand the application of the notion of metaphor within the discussion of proceduralist art games and the general game studies discourse: "metaphor is to poetic language what the model is to scientific language" (Ricœur 2003b, 283). However, this view of metaphor holds a strict distinction between art (poetry) and science, and considers metaphor to be merely an element bound to the realm of art. Particularly with the contemporary studies of cognitive linguistics (see e.g. Lakoff and Johnson 2003; Lakoff and Johnson 1999) one can hold that metaphor is instead a general mechanism of cognition (see e.g. Müller 2008, 23–25) and therefore present in everyday thinking and understanding. Hence, Daniela Bailer-Jones concludes, "it comes as no surprise to encounter them [metaphors] in science also" (Bailer-Jones 2002, 108). Accordingly, Black has shown that metaphor plays a role in science in the form of theoretical models, as opposed to scale models and analogue models (Black 1962b).

Scale models differ from the modeled in terms of size – for instance, a model car is much smaller than its roadworthy role model, and an atom model used in the physics class is usually much larger than a real atom. As such, scale models fulfill the essential synecdochic and metonymic character of all kinds of representations, as they represent and reduce. The hitherto-ignored enlargement aspect is also covered by a part-for-whole understanding of synecdoche. Analogue models are "some material object, system, or process designed to reproduce as faithfully as possible in some new medium the *structure* or web of relationships in an original" such as "hydraulic models of economic systems" (Black 1962b, 222). The similarity between the model and the modeled is here guaranteed through "rules of

interpretation" which allow for the making of inferences from features of the model to the modeled and vice-versa. The similarity between modeled and model is thus an isomorphism, which means that the model shares a structural similarity with the original rather than a material similarity. This allows for a change of medium as well. Whereas Black terms the scale model clearly "iconic" in the Peircean sense, as it "literally embodies[…] the features of interest in the original" (Black 1962b, 221), the analogue model is iconic in a much more abstract way. It shares "the same structure or pattern of relationships" with the original but no specific features (Black 1962b, 222–223). Finally, there is the theoretical model which is essentially immaterial and can be described as "talking in a certain way," or as being like "introducing a new language or dialect, suggested by familiar theory but extended to a new domain of application" (Black 1962b, 229). Taking metaphor as a cognitive rather than a merely linguistic phenomenon, Black should have rather said "thinking in a certain way." As an example, Black uses Maxwell's "representation of an electrical field in terms of the properties of an imaginary incompressible fluid" (Black 1962b, 226). Ricœur describes this as an isomorphism, too, though, it is distinguished from the isomorphism in the analogue model in that "the isomorphism does not hold now between the original domain and something constructed, but between that domain and something 'described'" (Ricœur 2003b, 285). Therefore, Mary Hesse also calls the essential capacity of metaphorical models "redescription of the domain of the explanandum" (Hesse 1966, 157).

As an example for metaphoric models, Black refers to the idea of root metaphors proposed by Stephen C. Pepper, according to which root metaphors are metaphors which systemically "organize metaphors into networks" (Ricœur 2003b, 288). Root metaphors are very similar to what Lakoff and Johnson call conceptual metaphors, which are themselves organized by a network of interrelated linguistic metaphors. I suggest making an analytical distinction between these two types of metaphor with regard to models: one might say that root metaphors work top-down and conceptual metaphors work bottom-up. 'Top-down' shall mean here that metaphors are intentionally imposed on an object, whereas 'bottom-up' means that metaphors are used unintentionally because they make it possible to understand the very object in the first place. For instance, Heidegger's understanding of Being in *Being and Time* (Heidegger 2008) is very much shaped by the metaphor "being is a building/construction," which becomes apparent when he, for example, speaks of the "foundation" of Being (Sternberger 1981, 162). If he had used the metaphors intentionally, one might call it a root

metaphor, because it would determine the usage of other metaphors from the semantic realm of construction to describe Being. However, Sternberger assumes (1981, 162) that Heidegger used these metaphors unintentionally, and therefore they have to be considered as empirical exemplifications of the conceptual metaphor "being is a building/construction," which Heidegger as a cultural being would always already operate with. In other words, from this point of view, it is in no way surprising that Heidegger applied the source domain CONSTRUCTION/BUILDING, because it belongs to some of the most often-used source domains in everyday speech (see Kövecses 2010, 19; see also chapter 2). On the contrary, it would have been surprising if he had not used this domain.

The latter notion of metaphor suggests that it is not only in a scientific context that one can speak of metaphors as models. Considering metaphor as an essentially cognitive phenomenon, Black comes to the insight that metaphor provides models not only within the realm of science but also in the realm of everyday thought. In the revision of his original metaphor theory, Black writes accordingly:

> "I am now impressed, as I was insufficiently when composing *Metaphor* [(Black 1954)], by the tight connections between the notions of models and metaphors. Every implication-complex supported by a metaphor's secondary subject [i.e. source domain], I now think, is a model of the ascriptions imputed to the primary subject [i.e. target domain]: Every metaphor is the tip of a submerged model" (Black 1993, 30).

According to this quote, every metaphor potentially holds a model. In the most general sense, and in line with Lakoff and Johnson, metaphors are models constructed by and simultaneously shaping human experience, action, and understanding of the world (Lakoff and Johnson 2003, 5), but they also construct and frame such experiences, actions and understanding of the world. As such, for instance, the source domain WAR in the conceptual metaphor ARGUMENT IS WAR provides a model according to which one can understand the essential elements of argument, with no science and no poetry involved.

Recalling the implications of the use of the term 'metaphor' with regard to artgames and its use with regard to simulation games, a trio of discourses appears within which metaphor always plays a role but which inevitably shade into one another and mutually influence each other: the arts, science, and everyday speaking and thinking.

As such, one can say that metaphors which help to understand particularly intangible phenomena, such as emotions, can provide models upon which one can build simulations. Accordingly, I have suggested that the game *The Marriage* (one of Bogost's three examples for proceduralist artgames) should be understood as the first-order simulation of a metaphorically structured conventional understanding of love (Möring forthcoming). The simulation game is built upon a model provided by everyday conceptual metaphors members of Western societies use to understand love. These metaphors describe love mostly in terms of SPACE (love is a JOURNEY, LOVE IS SIZE, LOVE IS A FLUID IN A CONTAINER etc.) and they provide a dynamic understanding of love, since – as in these examples – a journey and a fluid are usually understood as movements.

The metaphors are applied in the game's processes, in that it inevitably generates dynamic situations oscillating between closeness and distance of different kinds. In terms of Aarseth's "master tropes of games" – aporia and epiphany – (Aarseth 1997, 90–91, 181) the aporia of the game consists of the distance and the difficulty of making the game tokens collide. Epiphany, on the other hand, sets in when the nearness of the game tokens is fulfilled by the player. Commonly, the game has been considered a metaphoric procedural representation or a metaphoric artgame, as opposed to a simulation. The former two were suggested by the contexts in which the game had been discussed so far; however, nobody has made the game's metaphoricity explicit (see Juul 2007; Rusch 2009; Bogost 2011, 9–16). The application of everyday metaphors which are in no way creative or unexpected questions the classification of the game as an artgame based on the way in which it represents. Apart from that, it is not merely metaphoricity as such which allows us to consider something as art or artistic, but rather the individual quality of any metaphors involved.

4.5 Case study – *The Marriage*, a simulation of our metaphorically structured model of love

In following I want to demonstrate the just-described and discussed metaphor-simulation dilemma with a case study of the *The Marriage* (Humble 2006, see Figure 3). As I have already remarked above, *The Marriage* is certainly an iconic example for the metaphor discourse in game studies, since many of the authors of this discourse have positioned this game within the artgame discourse and have called it metaphoric. Its designer, Rod Humble, has explicitly

declared on his website that "*The Marriage* is intended to be art" (Humble 2009). However, in the light of this chapter, with regard to the metaphor-simulation dilemma, and despite being semiotically abstract, one can say that *The Marriage* is a simulation of a love relationship, since the game object has never been intended to represent anything else so far.

The Marriage is in good company: similar semiotically abstract games about love relationships include *Love* (Contrebasse 2010, see figure 4) and *My Divorce* (Douville 2010), a parody of *The Marriage*. At first play, these games do not really reveal what they are about, as they are semiotically abstract, i.e. geometrical forms are floating through a playing field showing behaviors that are seemingly not easy to connect to their source systems. Only their titles give a hint regarding the model they are based on – love. Ian Bogost describes this as an "ambiguity between its [*The Marriage's*] title and the behaviors it implements" (Bogost 2011, 14).

The focus of this case study is the representation of love in the graphically abstract game *The Marriage*. As an abstract game about love it does not, for instance, depict any anthropomorphic avatars like the ones found in *The Sims 3* (The Sims Studio 2009), but consists of abstract geometrical shapes instead. In this case study I intend to demonstrate how love is represented by *The Marriage,* and how this is in fact similar to *The Sims 3*. According to my preceding analysis of the metaphor-simulation dilemma, and particularly with regard to section 4.4, one can say that *The Marriage* is a simulation of our largely metaphorically (and metonymically) structured model of love.

This can be shown on the levels of abstract semiotics and equally abstract mechanics and dynamics. Before I can discuss this thesis, I will present some ways in which *The Marriage* has been discussed so far in game studies with regard to metaphor (Juul 2007; Rusch 2009; Begy 2010; Bogost 2011). I will examine our metaphorically structured understanding of love, and finally analyze the way in which *The Marriage* represents the metaphors of love on the level of its semiotics, mechanics and dynamics. However, I will start with a brief introduction to the game.

4.5.1 *The Marriage* — the game

The Marriage consists of two squares, blue and pink, and circles, colored or black, entering and leaving the rectangular playing field. The primary goal is to "maintain the relationship" (Bogost 2011, 14) which coincides with keeping the game going as long as possible, as is also the case with *Tetris* (Pajitnov, Gerasimov, and Pavlovsky 1984). This means the player has to prevent the squares from dissolving entirely, since they become increasingly transparent or shrink if the player does not influence the course of the game. A game is played well when both squares are fully opaque, and so big that they fill out large parts of the playing field.

The player has four ways of influencing the course of the game. Firstly, moving the mouse over the game's title makes the game start, accompanied by the fading out of the title. The second possible input is to push a button on the mouse or keyboard after the game has started. This will end the game immediately and make it fade to black. The third possible input is to move the cursor over one of the squares, which makes both of the squares deviate from their trajectory and move towards each other until collision. When colliding, the pink square becomes less opaque and grows. The blue square grows when it collides with colored circles (except for black ones). The fourth input is to move the cursor over one of the circles (no matter if black or colored), which makes the pink square shrink and the circles disappear. If the player does this too often in a short time span, the pink square dissolves and the game ends.

Figure 3: *The Marriage* (2006), screenshot.
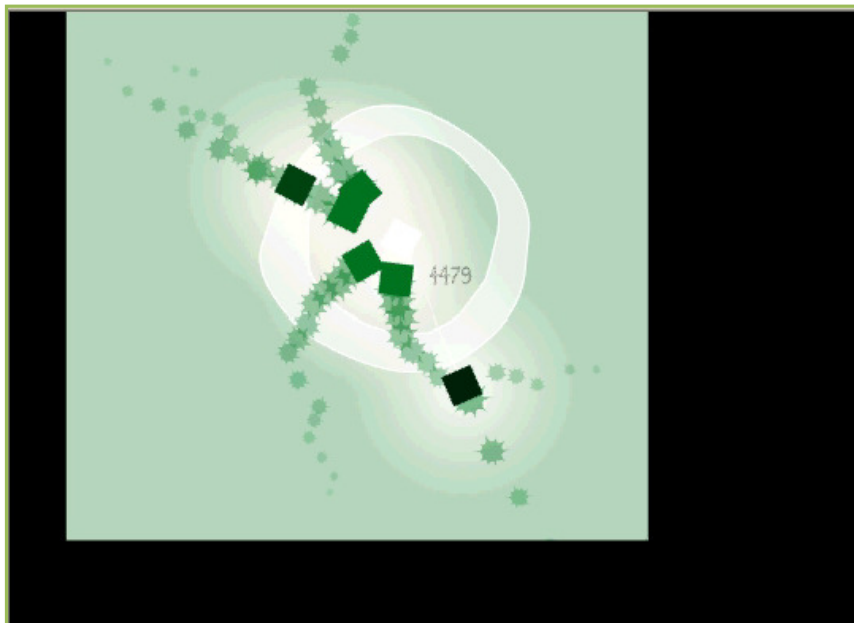
Figure 4: *Love* (2010), screenshot.

4.5.2 *The Marriage* in the discourse of game studies

Primarily because of its abstract semiotics and the alleged difficulty of meaningfully relating the game with its theme, *The Marriage* has received some academic attention. For Rusch, *The Marriage* is an example of how games can allow for a deeper understanding of the human condition (Rusch 2009). Where one sees squares, she sees "partners"; where one sees colliding squares, she sees them "kissing"; where one sees squares reacting differently according to certain inputs and game states, she sees the different "needs" of the partners in a relationship. Rusch's interpretation of the game is clearly metaphorical. She also reads the game according to the explanation provided on Humble's own website(2009), which states that the game is based on his personal experience with his marriage.

Following Rusch (2009), one can even read a biased concept of a marriage into the game. According to the game rules, the female square is clingy, as it grows and gets more opaque only when colliding with the blue square. The blue square, conversely, needs some freedom, and thus needs to collide with colored circles to become less transparent and grow bigger. Negotiating *The Marriage* primarily under the premise of procedurality or procedural rhetoric as understood by Bogost, she concludes that games which represent abstract ideas such as love have to rely on metaphors to make these ideas tangible. Yet, Rusch does not explain how this would work in general, and consequently does not show this with *The Marriage*. Evaluating the rhetorical success of the implemented model of love, Rusch remarks that the game does not "evoke the experience of being in a relationship" (ibid.), contrary to Humble's suggestion the game would express "how marriage feels" (Humble 2009; also in Rusch 2009). However, Rusch connects to the game's meaning on a cognitive level. She realizes that the game does not actually model the experience of being in a relationship, but "depicts [...] the reflection process about its mechanisms" (Rusch 2009). Her conclusion is that the reflection process of the mechanisms of a marriage is not only depicted on the visual level but also modeled in the system itself (ibid.). Instead of emphasizing the fact that the game depicts the reflection process, one can also say that it depicts an abstract though very general concept of love, featuring some structural elements of a love relationship such as lovers, closeness, events, size etc. In addition, one should point out that the game supports a very male-stereotypical notion of a marriage, indicated by the coloring of the squares as well as their behavior (freedom-loving male blue square and clingy female pink square). This is most likely due to

the designer's own male gender being shaped by his cultural context, which might primarily support a heterosexual concept of a marriage. In order to avoid a male-stereotypical limitation of the possible interpretations of the game, one could perhaps have called it *The Relationship*, or at least give the squares an unconventional color-coding. However, it is possible to ignore the offered gender coding in the game and re-signify it while playing/interpreting the game. This would imply taking the behaviors of the squares as significant for different partners with different characters, but without any emphasis on a specific gender, since lovers, closeness, events, size etc. play a role in all kinds of love relationships. The latter elements are more significant than the blue and pink color-coding of the game tokens.

Bogost discusses *The Marriage* as an example of "proceduralist games" which "are process intensive […] [and] rely primarily on computational rules to produce their artistic meaning" (2011, 13), thus classifying the game, as Humble does, as an artgame. In his view "*The Marriage* is about the push and pull of maintaining a relationship" (Bogost 2011, 14). Bogost also makes the distinction between simulation and metaphor via proceduralism: "at a time when videogames focus on realistically simulating experiences, proceduralism offers metaphoric treatments of ideas" (2011, 17). Unfortunately, even Bogost omits a discussion of the precise manner in which the game is metaphoric.

Juul mentions *The Marriage* in his paper "A Certain Level of Abstraction" (2007). Sticking to his known distinction of games as fiction and as rules, the level of abstraction of games can be seen as "the border between content that is purely fictional and the content that is presented in the fiction as well as implemented in the rules of a game" (Juul 2007, 510). With regard to *The Marriage*, Juul comes to the conclusion that it "can only be perceived as radical abstraction" (Juul 2007, 512). In his view, the rules are an abstraction of the fiction, but even the fiction of *The Marriage* (its semiotic layer) is itself very abstract as opposed to its real-world referent. Therefore, he considers it an "allegorical representation of a relationship" (Juul 2007, 513). Given that an allegory is generally understood as an "extended […] metaphor" (OED Online 2011a), one can consider metaphor and allegory synonymous for the purpose of this chapter.

Where Rusch suspects that the representation of abstract subjects through games can, in general, only work metaphorically, Bogost and Juul both subscribe to the opposition of mimetic simulation games versus abstract metaphor games. Begy (2010) develops, in his work

on metaphors in semiotically abstract games, a conceptual opposition of simulation and metaphor. As opposed to Bogost, Juul and Rusch, he classifies *The Marriage* as an abstract simulation and not a metaphor. Begy thereby supports the contrary view to the aforementioned approaches by allowing for the possibility of an abstract simulation. It is to Begy's Master's thesis that I partly owe the inspiration for this chapter.

As one can see from these partly contrary discussions, *The Marriage* clearly poses the question of whether it represents love as a metaphor or as a simulation.

Love can be recognizably simulated, as in *The Sims 3,* where it retains audiovisual characteristics of symptoms which we – through cultural influence, of course – are considered to indicate love.[52] However, these are merely audiovisual clues that a certain value of the relationship meter has been actualized. In other words, the surface signs of love depend on the underlying dynamic model of a love relationship. So, with Juul's approach to simulation, *The Sims 3* can certainly be classified as a more mimetic simulation because it has a higher degree of fidelity. *The Marriage*, on the other hand, seems to be a low fidelity simulation of a love relationship because of its very abstract semiotics, as well as due to the few implementations of possible love relationship activities in the game mechanics. My analysis of the initially introduced common distinction between games as either mimetic simulations or abstract metaphors has shown that this distinction hardly holds since also semiotically abstract games can also count as simulations.

According to the analysis so far, the question cannot be if the abstract game *The Marriage* is a metaphor for love *or* a simulation of love. The question is rather: *What* does *The Marriage* simulate? Love-related activities, an individual experience of love, or a metaphorically structured concept of love? I would like to suggest that it is the last of these.

Although Begy accepts that abstract simulations as well as non-abstract simulations can be interpreted metaphorically (as long as the projected source system is different from the originally implemented one, see in Begy's framework) (Begy 2010), he fails, like Rusch, to

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[52] When Sims have sex, the blanket moves excitedly up and down and small red hearts fall like rose petals on the blanket accompanied by respective sounds. If a Sim talks to somebody she is attracted to, one can see hearts popping up in their thought bubbles. Apart from sex, the player has plenty of other lover relationship options to choose from. She can flirt with the beloved, she can give her/him presents, she can take her/him out for dinner, and so on.

analyze one of his main examples, *The Marriage*, in its relation to metaphor. This is due to his strong distinction between simulation and metaphor.

Both Begy and Rusch draw on Humble's description of the game without taking into consideration the fact that a culturally-shaped understanding of a love relationship will most likely be metaphorically structured. This should have been a logical step in the analysis, given that Begy draws on the framework of metaphor proposed by Lakoff and Johnson, who assume that most of our experience, understanding and action is structured metaphorically (Lakoff and Johnson 2003, 3). Instead, Begy would have had to acknowledge that the designer's concept of love and marriage might be largely metaphorically structured, too. Thus, Begy and Rusch would have also had to assume that Humble's reflection process on his marriage does not rely solely on his subjective experience with his own marriage or love relationship. Therefore, the interpretable concept of love or marriage in his game is in fact considerably more generic than the designer would like it to be[53]. This also explains the rather stereotypical concept of love implemented in the game.

I would argue that understanding game love in *The Marriage* as a simulation of a love relationship requires us to interpret it from a metaphorical perspective. *The Marriage* is not only a simulation of an individual experience of love, but also a simulation of a metaphorically structured concept of love. In other words, a metaphorical interpretation of the simulation is possible because the designer and the player/interpreter draw on the same kind of metaphorically structured concept of love.

Considering that a simulation is always based on a model and metaphors provide models of and for thought, it makes sense to consider a metaphorically structured model of love to be the basis for the simulation at hand. This is not necessarily the case because the designer has intentionally chosen to do so – which, when reading the accompanying website of the game, turns out not to be the case. The reason that the designer draws on this model of love is, following Lakoff and Johnson, because Humble is a member of a specific culture (Western, or, more specifically, US American) and therefore always already structures love metaphorically in a specific way. Thus, one can say that the designer of *The Marriage* could almost not avoid drawing on this specific metaphorically structured model of love. In order to

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[53] It can also be the case that the designer's personal marriage was very stereotypical.

understand this claim, I will briefly demonstrate how love is conceptualized in everyday language and thought.

4.5.3 Metaphorical structuring of love in everyday language and thought

Zoltán Kövecses, a Hungarian cognitive linguist "working on the language and conceptualization of emotion," observes that "emotion concepts such as anger, fear, love, happiness, sadness, shame, pride, and so on are primarily understood by means of conceptual metaphors" (Kövecses 2010, 23). Among those, "love is the most highly 'metaphorized' emotion concept" (Kövecses 2003, 27). Thus, there are plenty of examples which together constitute the conceptual system of love. Furthermore, HUMAN RELATIONSHIPS such as FRIENDSHIP, LOVE, and MARRIAGE are another target domain commonly metaphorically structured by different source domains. From everyday language use, one can derive a huge number of conceptual metaphors which have LOVE as a target domain; among those are LOVE IS A UNITY (OF TWO COMPLEMENTARY PARTS), LOVE IS CLOSENESS, LOVE IS A BOND, LOVE IS A FLUID IN A CONTAINER, LOVE IS PHYSICAL FORCE, LOVE IS WAR and LOVE IS A GAME (Kövecses 2003, 26). According to the cognitive linguistic view of metaphor, these structural metaphors are a convincing indication that our general understanding of love is structured by them. The necessary evidence is provided by common linguistic expressions such as "We are as *one*" (LOVE IS A UNITY), "They are very *close*" (LOVE IS CLOSENESS), "I was *magnetically drawn* to her" (LOVE IS PHYSICAL FORCE), and so forth (Kövecses 2003, 26).

One might ask why I am talking about LOVE metaphors if the game to be analyzed is called *The Marriage.* Would it not make more sense to speak of MARRIAGE metaphors instead? Not necessarily! At least in North America, according to some empirical evidence, "marriage is in many ways structured by our understanding of love" (Kövecses 2003, 120). As LOVE and MARRIAGE are subordinate to RELATIONSHIP concepts, metaphors from both realms can be taken into consideration. This becomes apparent in the case of the so-called UNITY metaphor, which works in both realms: LOVE IS A UNITY and A MARRIAGE IS A UNITY.

Kövecses identifies LOVE IS A UNITY (OF TWO COMPLEMENTARY PARTS) as the central metaphor in the systematic framework of metaphors of LOVE (Kövecses 1986, 62–67). He is here in line with those philosophies of love which focus on a conceptualization of love as a

union (cf. Helm 2009). The metaphor is supported by expressions such as "We are *one*. She is my better *half*. Theirs is a perfect *match*. We function as a *unit*. They are *inseparable*" (all examples from Kövecses 1986, 62). The UNITY metaphor makes us see analogies "between certain love experiences and the unity of two complementary physical, chemical etc. parts" (Kövecses 1986, 63). According to Kövecses, the UNITY metaphor implies a specific understanding of love in terms of "an ideal unity in which the two parts maximally complement each other" (Kövecses 1986, 63). It can also be understood as a symbiotic union in which one part cannot exist without the other, so that one lover is only experienced as one half in a relationship (Kövecses 1986, 63). Since we primarily conceptualize love with these metaphorical expressions, they usually seem rather ordinary, and, therefore, not metaphorical to us.

Strongly related to this concept of UNITY is the idea of PHYSICAL CLOSENESS, which is often even literally the case with people who are in love. Love and physical closeness are causally related. That is why expressions framing love in terms of closeness are often also metonyms. Typical structures for metonymies in cognitive metaphor theory are THE PART FOR THE WHOLE ("traditional rhetoricians" call this specific structure a synecdoche), PRODUCER FOR PRODUCT, CAUSE FOR THE EVENT etc. (Lakoff and Johnson 2003, 35–40). Kövecses even believes that typical behaviors related to a specific emotion are the basis for the central metaphor of an emotion. In the case of love, this is physical closeness. Consequently, this PHYSICAL CLOSENESS is part of the metonym as well as the metaphor. In the metonym, closeness is literally the case, but being in love can also mean that one is metaphorically close - for example, by thinking of each other even though one is physically separated, as in a long-distance relationship (Kövecses 1986, 65–66).

Certainly, the concept of love consists of many more metaphors and metonymies. Given the limited space for this chapter, I shall limit myself to pointing out that more metaphors can be found in Kövecses (1986; 1988; 2003; 2010). To sum up, the Western model of love consists of the presented metaphors and can be seen as the basis for the simulation in question. I will now analyze in detail how *The Marriage* applies love metaphors in its simulation.

4.5.4 Analysis of *The Marriage* according to conceptual metaphors of love

To better distinguish the steps of analysis, I will regard the semiotics of the game, the mechanics and the gameplay according to Aarseth's ontological layers of a game (2011, 59–61; Aarseth 1997, 40; see also chapter 1). I will also examine the dynamic aspect the game according to Hunicke et.al.'s MDA framework (mechanics, dynamics, and aesthetics; Hunicke, LeBlanc, and Zubek 2004).

4.5.4.1 Love in the semiotic layer of *The Marriage*

The semiotic layer of a game "informs the player about the game world and the game state through visual, auditory, textual and sometimes haptic feedback" (Aarseth 2011, 60). Considering Juul, the fictional (or semiotic) layer is as important as its rules (or its mechanical layer) in order to understand what a game simulates (2005, 170–173). In this section I will primarily analyze the visual elements of *The Marriage,* which inform the player about the game state and the state of the respective love relationship at play.

When opening the game an inserted title in the center says "The marriage," together with the name "Rod Humble" and the year "2006" in the lower right corner. A mouse-over makes the title fade out, while the two blue and pink squares fade in simultaneously. For a second they embrace the title as if they were poles of a line segment (see figure 6). This title symbolizes the relationship of the two central game tokens not only by its meaning but also by being a visible object connecting the two. Furthermore, it exemplifies the metaphor LOVE IS A BOND present in expressions like "there is a close *tie* between them" (Kövecses 2003, 26). From the title's meaning and from the visual choreography of the title and the game tokens, one can guess that what happens in this game is something about a love relationship. As soon as the title fades out, the two squares move towards each other as if they were magnetically drawn. This all happens before the player can exert any influence on the game.
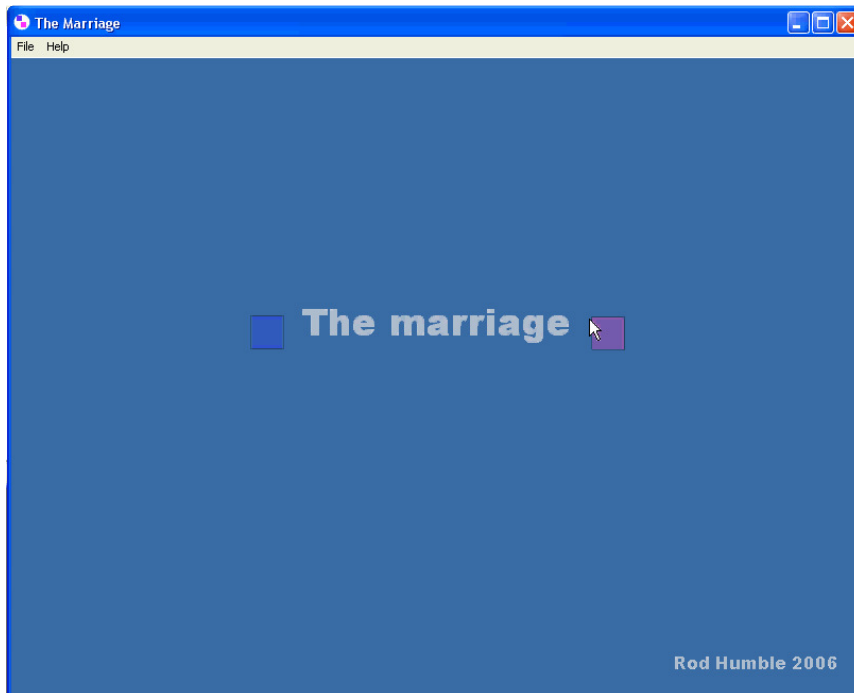
Figure 6: Fading title contained by the two game tokens symbolizes unity in *The Marriage* (screenshot).

The central conceptual metaphor LOVE IS A UNITY OF PARTS is exemplified by the two main game objects. The pink and the blue square are PARTS of the conceptual metaphor. The playing field which contains all game elements and in which the game action takes place constitutes the UNITY of the PARTS as it circumscribes the important parts in question. The game as a whole is a unity which consists not only of the two complementary parts, but also implies the circles symbolizing events. Focusing on the squares, one can differentiate between the initial game state, when the squares are still relatively small, and a later game state, a result of successful play. In the former case, the game space leaves a lot of space to move around. In the latter case, the squares have become so big that they almost fill the whole game space. This is another way to see the UNITY metaphor realized in the game. Although some kind of unity is already initially established, a convincing unity in terms of a successful marriage seems only to be the result of successful play: when both squares fill the whole game space, even the negative events, symbolized by black circles, do not significantly shrink the squares. They immediately grow again - as soon as they collide with each other in the case of the pink square, or with a positive event, symbolized by a green circle, in the case of the blue square.

Another game state to be described exemplifies the conceptual metaphor LOVE IS CLOSENESS. When the squares are big enough, they are automatically close to each other. This is contrasted to the initial game state. The squares are so small that they can easily be quite distanced from each other in the game space. As we will see, CLOSENESS plays an important part in the mechanics and the dynamics of the game, too, since the player's main task is to trigger closeness between the tokens time and time again.

The free movement of the game objects in the game space, which is only controlled by the physical laws of the game, and their dynamically varying size according to the game state and player input, exemplify the conceptual metaphor LOVE IS FLUID IN A CONTAINER. In the LOVE concept which Kövecses analyzes, this metaphor is closely related to the concept of INTENSITY, which "is often expressed by the amount of substance in a container" (Kövecses 1986, 82). The intensity of the love relationship in *The Marriage* is depicted by the size of the squares relative to the container. Thus, a "*big* love" is exemplified as soon as both squares fill a large amount of the game space.

However, one can interpret the relationship as intense only if both squares are equally big; otherwise, it needs to be interpreted as Humble does on his website:

> "The size of each square represents the amount of space that person is taking up within the marriage. So for example we often say that one person's ego is dominating a marriage or perhaps a large personality. In the game this would be one square being so large that the other one simply is trapped within the space of it..." (Humble 2009).

Juul argues that "*The Marriage* [...] has a 2D allegorical representation of a relationship – a spatial representation of something non-spatial" (Juul 2007, 513). However, as we can see in Humble's quote, and in the metaphors discussed so far, the conception of LOVE is largely spatial. Most of the presented concepts - like JOURNEY, UNITY, CLOSENESS, FLUID IN CONTAINER, and PHYSICAL FORCE - imply a spatial structuring of LOVE. Since *The Marriage* can be considered as a dynamic spatial configuration of objects, it is predestined to simulate a concept of love in terms of space.

4.5.4.2 Love in the mechanical layer of *The Marriage*

In order to hold up the hypothesis that game love in *The Marriage* is the *simulation* of our metaphorically structured understanding of love, one needs to identify aspects of behavior or dynamics and show if and how these appear in the game as well.

A simulation does not only consist of its visual representation, but also of its rules (Juul 2005, 170) or/and its mechanics (Aarseth 2011, 61). As we have seen from the perspective of philosophy of science, a simulation does not even necessarily need a representation, as it primarily consists of the solving of "equations of the underlying dynamic model" (Hartmann 2005, 5). According to Aarseth, "the mechanical layer of a game object (its game mechanics) is the engine that drives the game action, allows the players to make their moves, and changes the game state" (Aarseth 2011, 60). For Aarseth, the mechanical layer has a primacy over the semiotic layer, as it determines what can be done, seen, interpreted etc. on the semiotic layer. Furthermore, he uses the notions of simulation and mechanics almost synonymously (Aarseth 2004, 52). The significant parts of the mechanics in *The Marriage* are the manipulable game tokens through which the player influences the game state.

Let me identify the mechanics of the following activity: mousing over one square (a game token) in *The Marriage* makes both squares move towards each other. In this case the mechanics consist of the rule "*if* player mouses over one of the squares, *then* both squares will move towards each other and eventually collide." From wherever the squares are, at the moment when the cursor passes over one of them, they will move towards each other and thus change their position in the game space. The collision leads to the next change of the game state. It makes the pink square grow and thereby partly ensures the continuation of the game. This mechanic can be called a "core mechanic", which is "the essential play activity players perform again and again in a game" (Salen and Zimmerman 2004, 316). Clearly, it is not the only mechanic of the game, but it is certainly a very important one, as this is the only way that an external input can influence the system.

Moreover, this core mechanic is based on the conceptual metaphor LOVE IS PHYSICAL FORCE, which Kövecses derives from linguistic expressions such as "I was *magnetically drawn* to her" (Kövecses 2003, 26). In a common love relationship, it is necessary to produce metaphorical as well as metonymical CLOSENESS every now and then to keep the relationship going. On the one hand, one can see that the PHYSICAL FORCE metaphor supports the LOVE IS CLOSENESS

metaphor. On the other hand, conceptualizing love as a physical force accounts for the player's special role in the game. Instead of playing one or the other of the partners, the player plays the role of love itself – the player is executing the force which draws the partners together.[54] The same mechanic can also be interpreted as an actualization of the LOVE IS A JOURNEY metaphor (see above). This metaphor conceptualizes aspects of "the progress and the purposes of the love relationship" (Kövecses 1986, 6). In particular, the linguistic expression "We are *moving towards* each other" is supported by this mechanic, and it can again be meant metonymically and metaphorically. Metonymically, this is the case when referring to the actual position of the lovers in physical space in which one establishes proximity every now and then, and metaphorically if "one *approaches* each other" ideally, emotionally etc.

On this background, it seems only logical to implement a mechanic which makes two central game tokens collide once every now and then in a simulation of a love relationship. However, the mechanics usually make the squares move apart from each other right after they have collided. This embodies the metaphoric expression "going our *separate* ways." However, whereas this expression usually describes the separation of a couple, in *The Marriage* this has different meanings. Certainly, in case the squares have not collided in a while, the game/marriage will end (for the pink square). There is also, however, an added mechanical complication: the blue square needs to collide with the mostly green-colored circles. This cannot be initiated actively by the player: she needs to let the blue square move on its own and thereby increase the chance that it will collide with the floating colored circles.

4.5.4.3 Love in the dynamics of *The Marriage*

As Treanor et.al. write, it is difficult, if not impossible, to derive meaning (the source system of a simulation) from interpreting mechanics alone (Treanor et al. 2011, 118). As one could see when trying to describe the mechanics of the game, one necessarily speaks about them in the context of other mechanics and their interplay, and regards them altogether rather as a "gestalt" (as in e.g. Lakoff and Johnson 2003, 81) which consists of several distinct elements but is perceived as a whole.

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[54] I thank my colleague, Daniel Vella, who kindly expressed this thought to me, which had only been implicit in my own understanding so far.

A distinction should be made between the mechanics and dynamics of a game. While the mechanics consist of the strict rules which determine the behavior of individual game elements as reactions to player input and game state changes, and hence describe the characteristics of the simulation as an object, dynamics describe the processual characteristics of a game which emerge from the given mechanics when the simulation is at play. The dynamics are "the run-time behavior of the mechanics acting on player inputs and each others' outputs over time" (Hunicke, LeBlanc, and Zubek 2004 in Treanor et al. 2011). The distinction between mechanics and dynamics is analogous to the distinction of games as either objects or processes (Aarseth 2001b; also in Calleja 2011, 9–11; Malaby 2007). Thus, the dynamics are that which becomes perceivable when the game is at play. Play testing is the necessary consequence, given that we do not know how the dynamics of a game will play out just from knowing its mechanics. When Hartmann says "*a simulation imitates one process by another process*" (2005, 5) the dynamics are the layer of *The Marriage* on which the processes of a love relationship are primarily experienced by the user.

According to some philosophers of love, such as Robert C. Solomon (Solomon 2001 in Helm 2009), love is the constant "'tension' between union and autonomy" (Helm 2009); i.e. being in love does not only mean to become one with the partner but also to preserve one's own identity. This is also known as the so-called "paradox of love" (Solomon 2001, 64 in Helm 2009). Interestingly, Solomon chooses "an [admittedly] unromantic analogy" – one could also say a metaphor or a model – from the realm of chemistry to illustrate his "paradox of love" which consists of "the fusion of two independent atoms to form a molecule. The atoms retain their identity as atoms of a certain element but, at the same time, they altogether form a new substance with quite different properties" (Solomon 2001, 65). As we have seen, it is not only the case that this analogy is the experiential basis of Kövecses' LOVE IS A UNITY OF COMPLEMENTARY PARTS – he even goes so far as to use the same chemistry analogy to ground this metaphor in. In this respect, the dynamics of *The Marriage* can also be seen as a simulation of the LOVE IS A UNITY OF COMPLEMENTARY PARTS metaphor and as being based on those love theories (as e.g. Solomon 2001) whose common focal point is considering "love as union" (Helm 2009).

This metaphor is entailed in the two different but significant gameplay conditions (for the concept of the gameplay condition see Leino 2010, 134) which have to be met to keep the

relationship going in *The Marriage,* and which result in specific dynamics emerging during play. Firstly, the player will need to make both the squares collide every now and then in order to satisfy the "needs" (Rusch 2009) of the pink square. Secondly, she will let the blue square roam a bit to make it collide with colored circles (while avoiding black ones) and to satisfy its needs. Consequently, the player will most likely play a game of closeness and distance whose degree of difficulty depends on the current game state and the skill of the player. As such, the player must take care that the distance between the squares does not get too large, especially when they are comparatively small. It can happen that it takes the pieces too long to travel all the way to each other, so that they fade completely on the way to each other (seeing this happening can be some sort of tragedy). Triggering CLOSENESS is simpler if the squares have already reached a reasonable size and fill huge parts of the playing field.

From the perspective of image studies (Bildwissenschaft), which regards computer games as "interactive pictures" (Günzel 2008, 170), one could argue that the player's main activity in playing computer games is the production of specific images. Some of them are favorable while others are unfavorable. This perspective favors the visual primacy in computer gameplay (a criticism raised in Kirkpatrick 2011) which is an a priori to interact with the game. Thus, during gameplay in *The Marriage,* the player basically produces images which exemplify metaphors structuring our understanding of love - meaning that, as a result of the dynamics of the game, the player generates images of CLOSENESS and DISTANCE according to the two significant gameplay conditions.

4.5.5 The LOVE IS A GAME metaphor

With the dynamics of the last section in mind we, finally, have to take into account perhaps the most obvious metaphor enacted by *The Marriage* (Kövecses 1986, 105; Kövecses 1988, 74; Kövecses 2003, 26; Kövecses 2010, 15). The LOVE IS A GAME metaphor consists of expressions like "he *made a play for* her" (Kövecses 2003, 26) or "[he] *plays* hard to get" (Kövecses 1986, 105). Clearly LOVE is here the target domain and GAME the source domain. Although these metaphors seem to stem rather from a more performance-oriented concept of play in terms of theater, they also can be seen in terms of a more game-related notion of play. One can, for instance, play (in terms of acting/pretending) hard to get for somebody who

apparently shows his emotional attachment more openly, even though one is as interested. However, one can also "*play with* somebody's feelings" in the case that one is not so interested but wants to see how far one can go. One does so, for instance, when pretending on one day to be emotionally very interested in the other person and on the other day behaving very reservedly and coldly. This kind of play is finally nothing else but the play of closeness and distance which is part of the central LOVE IS CLOSENESS metaphor. This coincides with Gadamer's notion of play as a "to-and-fro movement" which "has no goal that brings it to an end; rather, it renews itself in constant repetition" (Gadamer 2004, 104), as we have discussed in Chapter 3. Gadamer as a German native speaker does not make the distinction between game and play that English speakers do, so we can assume that the characteristics of his notion of play also count for the notion of game. However, following Gadamer, one could even say that LOVE IS A GAME is no metaphor at all. According to Gadamer, play is medial (Gadamer 2004, 104), meaning it always needs something else to come into existence. So a love relationship would then be just one option among many for play to come into existence. What is interesting in this regard is, again, Bogost's observation that *The Marriage* is "about the push and pull of maintaining a relationship" (Bogost 2011, 14), in that the "push and pull" is clearly an instance of Gadamer's "to-and-fro movement" which is characteristic of play – and, as such, it makes sense to think of love as a game which exhibits the to-and-fro movement of play. Regarding my discussion in Chapter 3, and, specifically, section 3.9, this push and pull can also be seen in the light of competition or agon. Consequently, both love and agon can exhibit the movement that is typical of play. From here, it is then only a small step to the LOVE IS WAR metaphor, in which "lovers *attack* their partner" or "fight for their relationship." As such, one can assume that both "topics," war and love, are well suited to being "gamified". Interestingly, both, love and war, involve oppositions but also the concepts love and war, form a pair of opposition as is typical for play.

Another property PLAY and LOVE share, and which supports the LOVE IS A GAME metaphor, is that games as well as relationships can be, and are sometimes, thought of as cybernetic systems (cf. e.g. Salen and Zimmerman 2004, 212–228; Hunicke, LeBlanc, and Zubek 2004) whose behavior is determined by some kind of optimal value. If the system is in a state where the optimal value is reached, one could call it being balanced or stable. This is a system with a negative feedback loop. If it is not balanced, system dynamics come into play to balance it

again and try to keep it stable. Although this is a very technical metaphor to describe love, one can imagine a love relationship as a negative feedback system which appears to be very stable and balanced. However, a love relationship is also thinkable as a positive feedback system. In this case, a system state gets ever more amplified until an extreme is reached and the system explodes, collapses, or expands endlessly.

Last but not least, love and playing games share an analogy in the notion of caring "that is so essential to love" (Solomon 2001, 47). According to Johan Huizinga, the English verb "play" and the German verb "pflegen" ("to care" in English) "are not only formally but semantically identical" (Huizinga 1998, 40), meaning, they have the same etymological root. Additionally, he remarks that you can "pflegen" "love […] and […] even 'play'" (1998, 39). So, when being in love, we care about the other and about our love relationship. Being a player of a game, we care about our game and try to play it in a specific way. In a love relationship as well as in a game, "something is at stake" (1998, 40). In this respect, the LOVE IS A GAME metaphor makes a love relationship appear like a game in which the well-being of the game is at stake, the to-and-fro movement as well as the balance of the system. However, whereas the LOVE IS A GAME metaphor usually has a slightly negative connotation, as in "playing with somebody's feelings," one could also say that the game seen in the light of the notion of caring also makes the LOVE IS A GAME metaphor appear much more positive. Through playing the game, the player nourishes a metaphorical consequence from the LOVE IS A GAME metaphor, which is the enactment of the metaphor MAINTAINING THE GAME IS MAINTAINING THE LOVE RELATIONSHIP.

4.5.6 Further critical analysis of The Marriage

Now, I want to suggest a view on *The Marriage* which puts the whole analysis so far in a different light. This view makes a distinction between simulation games and games as such. Thus, I do not distinguish between artgames and simulations. Instead I understand both as simulation games but distinguish them from games proper. This distinction relies on Järvinen's division of Aarseth's semiotic layer of a game into the informational layer (Järvinen 2007, 74) and the thematic layer (Järvinen 2007, 77). As described in section 1.2.2, on the level of the informational layer "the game is presented purely in its own terms" (Järvinen 2007, 78),

whereas the theme connects the ruleset of a game to some sort of external meaning. The external reference can then be called simulation.

Despite my analysis of *The Marriage,* there are several issues with its metaphorical content. Firstly, I believe that, in its way of simulating a love relationship, the game does not differ significantly from *The Sims 3*. Secondly, *The Marriage* actually merely represents the source domains of the metaphors involved. Thirdly, seen purely from the perspective of the informational layer, the theme of the game is deniable in order to play it. Olli Leino suggests a notion of deniability for games, saying that "in games there are meanings the player can deny without decreasing his possibilities to act in the game. There are also some, which cannot be denied without such consequences" (Leino 2007, 116). As such, for *The Marriage,* it is absolutely unimportant for the player to see the game as a simulation of a marriage or a love relationship. As such, this is deniable in order to play the game. Aspects which are not deniable are the sizes of the squares, their relative positions in the game space, the positioning of the circles etc., as these give necessary information about the game state, and keeping the game at play requires understanding these parameters. This can be furthermore supported by what Wardrip-Fruin, in reference to Turkle, calls the "SimCity effect" (2009). Accordingly, the experience of playing a game simulation changes such that an effect happens which foregrounds the game object in its own terms as opposed to what it simulates.

4.5.6.1 *The Marriage* as representing the spatial source domain of love

Regarding the idea that games take place in simulated environments (see e.g. Aarseth 2003) one can assume a certain spatiality at play, too. Aarseth, for instance, analyzed the spatial structures of different games in his article "Allegories of Space" (2001a). In my case study, I could show so far that, if we consider any metaphors of love to be at play in *The Marriage,* those are primarily metaphors which conceptualize love as a spatial concept. I have pointed out that love is itself a largely spatially constructed concept. Hence, love in *The Marriage* should not differ much from playing a love relationship in *The Sims 3* (The Sims Studio 2009). This thesis is backed up by the fact that Rod Humble, the designer of *The Marriage,* was also formerly the Executive Vice President and Head of The Sims Label of Electronic Arts. As such, there is already a significant relation between the two games.

As we have seen, cognitive linguistic metaphor theory is based on the belief that our conceptual system is mosly structured by reference to our spatial and bodily existence in a world. This claim is based on the deconstruction of many common metaphors which, at the baseline, consist of spatial models (see primary metaphors). My argument, then, is that even in *The Sims 3* the player, similarly to *The Marriage*, primarily has to produce closeness between two partners in order to play a love relationship. In this regard, *The Marriage* is not much different from playing a love relationship in *The Sims 3*. Playing a love relationship in *The Sims 3* requires making two Sims fall in love. This necessitates making the two Sims get to know each other, making them spend some time with each other, hoping that they will like each other and eventually be romantic with each other, and so on – thereby making their mutual affection level increase. When they like each other enough, they will start calling each other and even visiting each other – at this point, one can choose the sex option, make them live with each other, marry and have kids. The requirement for that is, however, that the Sims get physically close every now and then. So we create closeness between them. Understandably, due to their possible individual need for freedom or other occupations, they will also be physically separate every now and then. In addition, having an overview on Sunset Valley (the standard Sims city) also shows the FLUID IN A CONTAINER source domain in action, because not only is love a fluid in a container, but so is life itself. As I have pointed out, the player is playing a game of closeness and distance when playing *The Marriage*. She does the same within *The Sims 3* when playing a love relationship, but also when doing other things. Consequently, the metaphors I identified as the basis of the representation of love in *The Marriage* apply equally to *The Sims 3*. When two Sims, for instance, are in a relationship and living in the same house, one can consider this as exemplifying the LOVE IS A FLUID IN A CONTAINER metaphor.

Why is this the case? My argument is that, given that both games simulate environments, they in some sense also simulate some sort of spatiality of an environment. Consequently, these games always already contain the condition of possibility of our metaphorically-structured conceptual system. Ignoring the title of the game and its topic and only regarding what happens on the screen while playing *The Marriage,* one can say it only simulates the spatial source domain of our metaphorically-structured model of love. The same goes for *The Sims 3*. As such, one can say that games which feature a spatial environment thereby also feature the spatial precondition for our metaphorical systems.

To give another example, the alleged artgame *Passage* (Rohrer 2007) has been called an "abstract metaphor[…] for the human condition" by its designer Jason Rohrer (Dahlen 2010), or a proceduralist artgame working with metaphor (Bogost 2011, 11). Again, as with *The Marriage*, nobody specifies how this metaphoricity works and in what way this game is metaphoric. However, this game has also received some public as well as academic attention. For instance, Jonathan Frome recently gave a talk entitled "Sadness in 1600 Pixels. Emotion and Jason Rohrer's *Passage*" at the Games, Conition, and Emotion conference in Hamburg (2013). *Passage* can be described as a simulated environment in which the player navigates a male character through a two-dimensional world. It features heavily pixellated graphics, as is typical for contemporary indie game design. At a certain point, the player passes by a woman and can decide if she wants to "go" for the rest of the game with her or not. The game does not feature any events which can make it end too early or the like: there are, for insrance, no enemies to the player avatar. The player is just moving the avatar, with a partner or without, for five minutes through the game space. Choosing to have a partner excludes some possible ways that might be taken, since they only allow for one figure to pass through. After five minutes, the game ends.

The game is supposed to be an interpretation of the idea of life and mortality. In particular, the semiotics of the game are supposedly conveying this topic. It plays sad music, one of Frome's reasons for discussing the game as evoking the emotion of sadness. The game world is much larger than the part which is visible. The visible area consists of only 1600 pixels Altogether. In the beginning, the player-character is positioned more on the left side of the visible frame, but moves continuously more to the right side as the game progresses. In addition, in the beginning, the right end of the visible screen – the future – is graphically blurred. This changes over play time. By the end of the game, the left side of the visible frame – the past – is blurred. Moreover, during play time, the characters become visibly older (indicated by increasingly grey hair and an according posture) and eventually die. Usually, the partner dies first, and after a while the player character dies, too.

As such, one can see the game thematizes the idea of the human condition in the way that it plays sad music, through the visibly represented aging of the characters as well as the change of a blurriness of the future to a blurriness of the past. The most obvious metaphor one can relate to this game is the LIFE IS A JOURNEY metaphor, as well as the LOVE IS A JOURNEY

metaphor, since the game features an environment which the player-characters traverse. As in *The Marriage,* I would argue that in this game, too, its spatial environment allows for the thinking of this metaphor. As such the game, again, features the source domain of the metaphor.

Furthermore, if *Passage* is metaphoric, then it is only so in the same way as, for instance, *Super Mario Bros.* (Nintendo 1985). Like *Passage, Super Mario Bros.* exemplifies both metaphors, LIFE IS A JOURNEY and LOVE IS A JOURNEY. Usually, the player moves Mario through the environment of the game from A to B, or, if seen on a large scale, from left to right through different levels, called worlds, until the final boss is defeated and the princess is saved. Apart from the game's stated goal of saving the princes, which we know from Gadamer is just a pretense to provoke the to-and-fro movement of the game to occur, the visible game space makes the player to move Mario to the right as well: if Mario is hit by the approaching screen limit, he loses a life. On the way to saving the princess, he has different, possibly detrimental, encounters with enemies such as Goombas or bosses like Bowser. As such Mario, undergoes a journey in both senses: the life of Mario or the game can be considered a journey, and, in travelling to princess Toadstool, the LOVE IS A JOURNEY metaphor is also exemplified.

On the level of the game's spatial structure, that which the player engages with and which does not require a further commitment to a game's theme, one can say that the game exemplifies the source domain of the potential metaphors involved, in that the player entity performs a journey in each case.

4.5.6.2 The SimCity effect

With the emphasis on the game's structure, I hope to make the distinction between a game and a simulation game. As indicated in the beginning of section 4.5.6 a basic distinction between a game and a game simulation can be made via the game's semiotics, in that a game is taken as a game when the semiotics are purely considered as the informational layer of the game and thus as giving information about the game's state. A game is taken as a simulation when its semiotics are understood as representing a theme external to the game.

In a similar way, Noah Wardrip-Fruin describes the so called "SimCity effect" (Wardrip-Fruin 2009, 299–352) as a gradual change of focus with increasing play time from a game simulation

to the simulating object, the game proper. Wardrip-Fruin derives the notion of the SimCity effect from the so-called Eliza effect. The Eliza effect is a concept based on the computer program of the same name, Eliza, invented by the computer scientist Joseph Weizenbaum in 1966 (Wardrip-Fruin 2009, 24). The program simulates a conversation with a psychoanalyst (the computer program) who responds to the user's input using natural language processing (Bogost 2007a, 11). To give an example, the user, for instance, types in a text such as, "Men are all alike" and the program responds, "In what way?", which triggers another input by the user followed by a response from the program (see examples of this conversation in Bogost 2007a, 10–11; Wardrip-Fruin 2009, 25–27; see the original in Weizenbaum 1966, 36–37). Being an established concept in human-computer interaction (HCI), the Eliza effect concerns the phenomenon that users take an artificial system for that which it simulates. As such, the program Eliza can, for instance, be taken as a real human being and be approached with human affection or the like (cf. Turkle 2005, 294).

Wardrip-Fruin now observes the breakdown of the Eliza effect, which can result particularly through playful interaction. This means that, when a user engages the program and figures out its limits, for instance by asking nonsense questions or questions which the program cannot answer, the illusion of the simulation breaks down (Wardrip-Fruin 2009, 15). This breakdown can only be avoided through a) the constraint of possible interaction with the system, or b) avoiding the occurrence of the Eliza effect in the first place. This can be done by "never building up the Eliza illusion and instead clearly representing the operations of a simple system on the work's surface" (Wardrip-Fruin 2009, 15). In terms of Järvinen's distinction, this means, for the latter case, that a game would operate with the semiotics only on the level of the informational layer, and avoid representing a theme.

Wardrip-Fruin's concept of the SimCity effect is derived from the breakdown of the Eliza effect. The SimCity effect is, in the beginning, similar to the Eliza effect: when users engage with a complex simulation, such as *SimCity*, they initially experience it as a "procedural representation[…]" of a city, partially due to the expectations this object raises by being defined as a simulation (Wardrip-Fruin 2009, 301). The Eliza effect and the SimCity effect differ in that the Eliza effect simply breaks down and disintegrates, since "the system's processes and data cease to operate as a representation of ideas first presented on the surface"

(Wardrip-Fruin 2009, 302). This means, in the case of Eliza, that a user simply does not buy the illusion anymore.

The SimCity effect, on the other hand, describes a shift on the level of engagement with the system instead of a breakdown of an illusion. For the case of playing *SimCity,* this means that the knowledge the player has about the functioning of a city or urban dynamics will not get her very far in playing the game. In order to play successfully, she will need to understand that her original idea of the simulated (how a city works) is different from the operations of the simulating system. Consequently, she is "incrementally building a model of the system's internal processes based on experimentation" (Wardrip-Fruin 2009, 302). This effect seems to affect many simulations when being used over a long time: they lose their representational relation and come to the fore as autonomous objects in their own right. For Wardrip-Fruin, this is an important requirement that allows simulations to become open to ideological critique (Wardrip-Fruin 2009, 308). I would follow Wardrip-Fruin and hold that a simulation stops being a simulation when the focus shifts from its being a representation of a simulated phenomenon to mere self-presentation of the simulating object. On the level of a game's semiotics, this shift goes from the theme to the game semiotics as the informational layer providing information about the internal process of the game object.

Wardrip-Fruin's description of the SimCity effect is reminiscent of Aarseth's observation with regard to playing the third-person 3D action adventure game *Tomb Raider* (Core Design 1996). Criticizing the emphasis on a game's theme (or narrative in this case) versus the game's informational layer, he writes:

> "the dimensions of Lara Croft's body […] are irrelevant to me as a player, because a different –looking body would not make me play differently […]. When I play, I don't even see her [Lara Croft's] body, but see through and past it" (Aarseth 2004, 48).

To me, this demonstrates that Aarseth is looking at the game's semiotics as the informational layer indicating the game state. What is interesting is that he speaks of seeing "through and past" the body, which suggests that Aarseth's primary attention is directed to spatial relations in the game world. Wardrip-Fruin's SimCity effect and Aarseth's focus on the game's informational layer can now also be assumed for many games which are initially taken as representing something else, and, as such, also for *Passage, The Marriage, The Sims,* and *Super Mario Bros.* One can imagine that playing *The Marriage* after a while comes down to a pure

negotiation of space. In this regard, even playing a love relationship in *The Sims 3* comes down to a negotiation of space, in that the two partners have to be brought close every now and then. The same goes for *Passage,* which, then, is nothing more than moving a game entity through the game space limited by the time span of five minutes. Obviously, *Super Mario Bros.* is a negotiation of space as well. To speak with Gadamer, in all games the player negotiates the space "in-between" – between the two partners in *The Marriage* or *The Sims 3*, as well as in *Passage* until the game ends, or, in *Super Mario Bros.,* between Mario and any opponents, as well as between the beginning of a level and its end.

Even *SimCity* can be said to be a negotiation of space, in that the player distributes resources over an area which, in the latest installment (Maxis Software 2013), is limited and thus becomes a resource in its own right. On the other hand, cities in *SimCity* are "growing" as they take more and more space when expanding commercial, industrial, and housing areas. In this light, one has to read Will Wright's observation (as shown in Chapter 1) that the "actual process of playing *SimCity* is really closer to gardening" (Wright in Pearce 2002). In this regard, Wright is indirectly referring to the *SimCity* effect, in that he says that the game is commonly initially approached as a train set (Wright in Pearce 2002). As in the Sim City effect, this changes over time when the game becomes increasingly experienced like gardening. An explanation for this can be derived from the spatiality of the game space. Even though a player engages with the game as such, and not with the game as a simulation, she will still have to manage the available space of the game. As the game progresses, it is likely that some regions develop well and grow, whereas others shrink. In Western language and thought, it is very common to speak of a "*growing* economy" or of "*flourishing* markets." Wright himself moves within the semantic field of gardening when he describing the game experience of playing *Sim City* as "*tilling* the *soil*, and *fertilizing* it, and then things *pop up*, and occasionally you have to go in and weed the garden, and then you may think about *expanding* it" (Wright in Pearce 2002). It is not difficult to imagine that one can also think of urban dynamics and an economy independently from playing *Sim City*. To my understanding, all these notions carry the idea of a negotiation of space in them, which *SimCity* is even when approached like a game and not like a simulation.

As such, it seems that the games analyzed so far are reduced to their spatiality. To my understanding, this proves that these games always already carry the source domains of

potential metaphors in them due to their spatiality. In this regard, as suggested by the SimCity effect, one can also speak of a de-metaphorization in the cases of *The Marriage* and *Passage*, games which, as I have shown, are commonly referred to as metaphoric. In other words, the target domain of *The Marriage*, love, disappears, and what is left is the pure negotiation of space and, as such, the source domains of love metaphors. However, I doubt that this is the case with *Passage*. My explanation is that I doubt that this game is usually being played more than once or twice. I furthermore assume, that *Passage,* as opposed to *The Marriage,* is a game which is rather meant to *show* something which it is not instead of *being* something in its own right. What I mean here is that *The Marriage* is a game object in its own right, which exhibits something which Olli Leino calls a "gameplay condition" (Leino 2012), as opposed to *Passage,* which does not. Leino derived the concept of gameplay condition from Jean-Paul Sartre's "human condition," a central concept in existential philosophy. In short, a gameplay condition is a condition which is imposed by the game on the user, and which requires the user to act in certain ways in order to keep a game at play in the first place before she can do whatever she likes. This means that, in *Super Mario Bros.,* the player has to make sure not to be hit by enemies, and, in *SimCity,* the player has to make sure to keep a positive budget before she can build her dream city (for this example see also Leino 2010). In *Passage,* there is no such thing as a gameplay condition, whereas in *SimCity* and *The Marriage* there is one. The gameplay condition, however, also allows us to approach games in their own right, in that a player can purely focus on keeping the game in a favorable state. Thus, the player can also ignore the theme of the game. In *Passage*, however, there is not much more to do except for paying attention to the theme or simply quitting the game.

With a focus on the notion of the gameplay condition, simply keeping the games in play still requires respecting the spatial configuration of the games in question – one can thus say that metaphors which are related to games, be this as an interpretation of a gameplay experience (see Wright's gardening metaphor) or as the basis of a simulation (see *The Marriage*) are only possible because of the essential spatiality of the games in question. Consequently, one can say that these games always already feature the spatial source domains of the discussed metaphor, no matter if one interprets or recognizes them as metaphoric or not.

Nevertheless, for *The Marriage,* one can say that, at the baseline, it does not represent love but the spatial precondition of the metaphorically structured concept of love.

4.6 Conclusion

This chapter has problematized the metaphor-simulation dilemma as it occurs in the artgame discourse as well as the more general game studies discourse. The lack of reflection on the term opens the door to insinuations of an ideological use of the notion of metaphor discourse to legitimize the artistry of artgames, since metaphor has, since Aristotle, traditionally been associated with the arts. Tracing the development of the notion of simulation to a notion of metaphor strengthened this suspicion. However, even the discussion within the more general game studies discourse has shown that the notions of metaphor and simulation are generally used almost interchangeably with regard to games. The notion of metaphor was itself used as a metaphor to account for the mismatch of the simulating representamen and the simulated object. Eventually, the similarity between definitions of metaphor as well as of simulation completed the metaphor-simulation dilemma.

My contribution to understanding this dilemma consists of three suggestions based on three observations in its regard. The first suggestion was to consider simulations as essentially synecdochic. This is derived from the observation that simulations are usually called metaphors when one refers to their reductionist character. The notion of metaphor is applied because it is derived from a broad notion of metaphor encompassing all figures of speech. The second suggestion criticized the use of the notion of metaphor when referring to the mismatch in similarity between the simulating and the simulated. Instead, I suggested that each simulation needs an interpreter to account for the similarity between the simulating and the simulated. Sticking to the semiotic model of simulation, I further suggested the need to better distinguish between a first-order and a second-order simulation depending on the conventionalization of the simulation. Finally, I suggested taking the notion of the model into account, and considering some simulations – such as *The Marriage* – as being based on cognitive models which are metaphorically structured, in that they provide the spatial requirements for this. Closer enquiry and a critical reevaluation suggest that the game does not carry the meaning of the assigned metaphors themselves. Instead, it simulates the spatial requirements for this meaning to come into existence in the first place, following Mark Johnson's theory that our conceptual system is based on our bodily and spatial experience of the world (Johnson 1987). With my analysis of *The Marriage,* I could also show that so-called

metaphoric games, as primarily addressed by the artgame discourse, do not differ much in their metaphoricity from mundane game simulations, as both feature the same spatial requirements which our metaphoric concepts are based upon. Thus, for *The Marriage,* one can speak of a de-metaphorization of the metaphorically structured concept of LOVE, which the simulation is inevitably based on, since this – according to the cognitive linguistic theory of metaphor – is how Western thought is structured. However, after the player has engaged with the game for a while – in consideration of the SimCity effect – one can assume that the target domain – LOVE – becomes less important in the experience of gameplay, and only the spatial source domain is left; moreover, this is also what is objectively given by the game, and does not need an observer who accounts for its existence in the same way that the target domain does.

This paves the way for the final chapter of this thesis, in which I will focus my investigation on the spatiality of games, as well as on elements of STRUGGLE (agon/competition). It appears that metaphoric readings of games come down to these two elements. As I have shown in Chapter 3, the concept of agon carries within itself already an essentially spatial structure. Thus, my goal for the final chapter will be to show how these aspects are present in metaphorical readings of games, such as, for instance, in Janet Murray's famous interpretation of *Tetris* (Murray 1997, 144) or Bogost's analysis of *Tax Invaders*. My analysis in the final chapter will also take into consideration that most metaphoric "readings," or readings framed within the paradigm of procedural rhetoric, refer to a sort of underlying existential structure of games. Finally, building on the SimCity effect, I will point out a difference between playing a game and reading a game, which is, to my understanding, significant in understanding the meanings and, more specifically, the metaphors in computer games, and which requires us to take different hermeneutics for games into account.

Chapter 5 – Textual hermeneutics vs. existential hermeneutics of games – de-metaphorization

5 Introduction

In this chapter, I aim to analyze and criticize metaphorical interpretations of games which are commonly related to the paradigm of procedural rhetoric and games with a message. as introduced in Chapter 1 and referred to in the previous chapter. The interpretation of computer games as metaphoric is, on the one hand, performed by chief proponents of procedural rhetoric and games with a message (Murray 1997; Bogost 2005; Bogost 2006a; Bogost 2007a; Bogost 2007b; Frasca 2007) or by authors referring to these paradigms (Rusch 2009; Begy 2010; Begy 2011). As shown in the last chapter, the games-as-art discourse also belongs here. Rod Humble states about his game, "*The Marriage* is intended to be art" (Humble 2009). For reasons of simplicity, I will refer to these interpretations as being based on the paradigm of procedural rhetoric.

My goal in this chapter is twofold. On the one hand, I want to demonstrate that interpretations of games as metaphors for some game-external system or concept usually happen after gameplay. Playing a game is then functional to this interpretation but not sufficient. In other words, these interpretations require that the interpreter has played the game, but this sort of interpretation is not necessary for playing the game. Thus, I hold that these interpretations are actually text interpretations, since a gameplay experience is retrospectively constructed as a text. Playing the game becomes merely a means to the end of gathering information about a game's "content" or "meaning," and thus a sort of text-fulfillment. This observation suggests that it might be necessary to distinguish between at least two sorts of hermeneutics, text hermeneutics and existential hermeneutics, which each refer to a different mode of how a game can be approached and understood: a) games as a representation or a form of showing versus b) games as a being.

Drawing on the thoughts developed by the end of Chapter 4 (in particular, the notions of de-metaphorization, spatiality of games, and the SimCity effect), I intend to show that those

games which are usually interpreted metaphorically, and which are thereby distinguished from non-metaphoric games, do provide the source domains of metaphors but do not require being seen as metaphoric themselves.

The source domains I will focus on are SPACE and STRUGGLE/WAR. Both are common characteristics of many computer games, which are not necessarily considered metaphoric. Focusing exclusively on these particular source domains is clearly a limitation of this study, but, at the same time, it helps to focus my analysis. This is firstly due to my focus on the discourse of game studies as I intended to analyze it critically. Secondly, it is due to spatial constraints in this work. Thirdly, this is due to computer games being generally considered as essentially spatial and providing some sort of struggle (Murray 1997; Aarseth 1997; Aarseth 2001a; Nitsche 2008; Calleja 2011; Günzel 2012; Gazzard 2013). Fourthly, many "interpretations" of games refer to an underlying existential struggle. For instance, Jason Begy interprets a situation in Jason Rohrer's game *Primrose* (2009) as representing some kind of "martyrdom" (Begy 2010, 74).

This leads to the second goal of this chapter, which is to show that games which are interpreted as metaphoric on the background of procedural rhetoric refer in one way or another to some sort of existentialism which is made clear through the existential topic addressed, such as failure, struggle, work, love etc. Procedural rhetoric holds that it is due to the particularity of persuasive games that such topics can be conveyed. Yet, games and play have already, before computer games, been termed and conceptualized as existential. As such, with particular reference to games which are referred to as showing some sort of existentialism, I am going to show that the games in question are always already existential in themselves. This allows us to question the foundation of procedural rhetoric: are games of procedural rhetoric existential because genius designer managed to embed such topics in these games or are games from the procedural rhetoric paradigm always already existential because they are games?

To make my point, I will:

1. analyze Janet Murray's and Ian Bogost's readings of *Tetris* in particular as representatives of the procedural rhetoric paradigm. I am going to show that both perform a text interpretation, in that they conceptualize the playing of games as some sort of text-fulfillment or roleplay. In line with this, I will criticize some general

assumptions about procedural rhetoric, and demonstrate that much of the meaning which is claimed to be conveyed by the procedures of a game is in fact textual or visual. In addition, I will show that both interpretations by Murray and Bogost in fact come down to an archetypal model of play, as their own language, as used in their respective interpretations, contains metaphors of SPACE and STRUGGLE/WAR.

2. As a consequence, I will show that computer games in particular have always been understood as spatial media. Based on this observation, I will, throughout this chapter, argue for my concept of de-metaphorization as introduced in Chapter 4, in that most games are in fact not metaphoric, but provide the spatial preconditions for all sorts of topics which come down to STRUGGLE/WAR and SPACE.

3. Furthermore, I will show that many metaphoric interpretations from the procedural rhetoric paradigm have interpreted the games they tackle in terms of existential topics or the human condition. However, I will contrast these findings with an assumed general existentialism of games and play as suggested by philosophies of play and by certain elements within the game studies discourse. As such, I suggest considering some games as existential games.

4. Finally, I will propose a distinction between two different hermeneutics at work in games – a textual hermeneutic and an existential hermeneutic. I will argue that the textual hermeneutic aligns with the procedural rhetoric paradigm, and thus with games as a form of showing or representation. On the other hand, I will argue that playing a game itself *is* sort of an existential hermeneutic, if we consider games as a form of doing and being. Generally, the second hermeneutic is primary for games, in that a game cannot unfold its textuality in the first place if it is not played in a way which conforms to its particular gameplay condition.

5.1 Example for a text interpretation of a game – Murray's reading of *Tetris*

In order to unfold my argument, let me start with an example – Janet Murray's famous and often quoted (Bogost 2007a; Rusch 2009; Begy 2010, 59; 2011, 11) interpretation of *Tetris* as:

> "…the perfect enactment of the overtasked lives of Americans in the 1990s - of the constant bombardment of tasks that demand our attention and that we must

somehow fit into our overcrowded schedules to clear off our desks in order to make room for the next onslaught" (Murray 1997, 144).

I argue that Murray performs a text interpretation and does not interpret the game as played (Leino 2010). My criticism is supported by Murray's own framing of her interpretation of *Tetris* in *Hamlet On The Holodeck* (1997) which she performs in the section entitled "Games as Symbolic Dramas." There she explicitly states that "games can also be read as texts that offer interpretations of experience" (Murray 1997, 143). This statement is immediately followed by her well-known interpretation of *Tetris* on the next page.

Pointing out the agon element of games as a suitable connection between stories and games, Murray speaks more precisely of dramatic texts featuring a conflict. She writes:

> "…the most common form of game – the agon, or contest between opponents – is also the earliest form of narrative. This is not surprising since opposition is one of the most pervasive organizing principles of human intelligence and language" (Murray 1997, 145).

If we believe that the earliest experiences in poorly developed cultures or protocultural states of *homo sapiens* were determined by a struggle for survival, as in the case of fighting dangerous animals, or even other human beings, in the struggle for life, it seems only natural that these experiences have also been retold and represented as soon as the human capacity of representation was developed. To me, it seems in this regard more logical that agon was not the earliest *form* of narrative but its earliest *content*. Following cognitive metaphor theory, it is assumed that we conceptualize many things in the *form* of a contest, such as the concept of "arguing" used as the iconic example for cognitive metaphor theory by George Lakoff and Mark Johnson (2003, 4). For instance, a panel discussion between two participants of contrary opinions is always already thought of as some kind of struggle or contest. When this discussion is reported to somebody else (hence, in the form of a narrative) it is certain that this discussion is reported in terms of STRUGGLE/WAR and thus in terms of competition. As such, the reporting of the panel discussion is also given the "form" of a competition. In addition, Murray points out that agon describes sportive competitions as well as conflicts as they occur in drama due to the common origin of games and theater (Murray 1997, 145). That play consists of the difference between contest and representation has already been stated by Johan Huizinga and Roger Caillois as I have shown in section 3.2.

It seems to me, though, that Murray omits the difference between a contest as an event and a contest as narrated. Clearly, conflicts are interesting to tell others about, but there is a decisive difference between a conflict that is happening and a conflict which is reported. The essential difference lies between the self-presentation and the representation of a conflict, which coincides with two different observer positions.

5.1.1 Competition as presentation versus competition as representation

A competition is an event when it unfolds and progresses over time according to certain more-or-less defined rules and its outcome is uncertain. Examples can include a football match or gladiator fights in ancient Rome. If this happens in front of an audience, this can be considered a theatrical situation[55]. Furthermore, due to its ideally uncertain outcome, competition involves some kind of tension, a notion which Huizinga, for instance, frequently refers to in his chapter "Play and contest as civilizing functions" (Huizinga 1998, 46–75). As such, a competition has the potential of being dramatic, in that it can create tensions.[56]

However, this dramatic characteristic is different from the tension created in a drama which represents a conflict. In a drama, it is not only the represented conflict that is responsible for any dramatic tension involved, but also the order in which events are presented. Whereas the tension of a competition presents itself or is present in the moment of the performance, the tension in a theatrical drama can be staged effectively. Consequently, tension in a drama can derive from both, the represented content as well as the form of the drama as such.

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[55] As I have shown elsewhere (Möring 2007), the language of football is also often conceptualized in terms of drama and theater. However, this language of football also refers to representational aspect of the game. The observer position of football commentators emphasizes their perspective on a match from a third-person perspective. Football commentators on the radio, in particular, necessarily create a text about a match in order to make it come alive for the listener.

[56] For example in the UEFA Champions League Final in 1999, Bayern Munich was 1:0 in the lead against Manchester United due to an early goal in the 6th minute. This did not change until the 90 regular minutes of game time were over. Despite Bayern Munich looking like the certain winner, the game was never without tension, since only one goal for Manchester could equalize the chances of both teams to win. On the other hand, a second goal by Bayern would have made it more difficult for Manchester to win. It is common in football to add so-called "injury time" of up to five minutes on top of the regular play time to account for any interruptions during a game. Although Bayern looked like the certain winner over most of the match time, they received two goals in this injury time and eventually lost the final against Manchester United.

Teun Dubbelman (2011) suggests a distinction between two different logics which apply to narrative 3D computer games and point at their specific paradox. On the one hand, these games represent parts of their story, which must have been thought out by game designers beforehand. On the other hand, they allow for playable parts in the game which have an element of presence, in that they happen in the moment a player, for instance, takes control of an avatar and acts through it in the game environment. Dubbelman calls these logics the presentational and the representational logic. They account for the difference between the happening of events (presentational) and the retelling or re-staging of events (representational). Dubbelman indicates the presentational logic with the spatio-temporal "here-and-now" and the representational logic with the "there-and-then." In this light, Murray's competition, which takes place in the here-and-now with an uncertain outcome, is primarily structured by a presentational logic. The retelling of the same competition is then structured by a representational logic.

5.1.2 First-person point of view versus third-person point of view

One can now translate these logics to the perspective of different observers. For the player of a presented competition, this competition is primarily a form of praxis, and, as such, a sort of doing. The competition is primarily experienced as ready-to-hand, or from the perspective of a first-order observer. Obviously, when the player is rethinking her tactics, let us say while playing a tennis match, the game and its progression become present-at-hand to her. Yet, to a second-order observer, the game is always already present-at-hand. However, when a contest is staged (e.g. the pre-match performance of the 2013 UEFA Champions League Final featured gladiators wearing the colors and logos of the two finalist teams, Bayern München and Borussia Dortmund) the battle is represented, and thus, shown. However, in this case, it is not a contest which presents itself, in that, for instance, a football match is played: instead, what we have here is the representation of a generic contest in the form of a duel (see chapter 3). The pre-match performance is clearly aimed at a second-order observer who is not herself involved in the performance and to whom the performance is not ready-to-hand, but to whom the performance is from the start intended to be present-at-hand and to be looked at. This distinction is similar to Olli Leino's distinction between the experience of a game from a first-person point of view (POV) as opposed to the experience in third-person (Leino 2010).

Whereas the first-person POV requires the observer to be part of the performance, the third-person POV can consist of a reflection on one's own performance or on the performance of somebody or something else.[57]

5.1.3 *Tetris* as a cultural text

Murray's interpretation seems not to be based on a specific performance of the game. Regarding Murray's interpretation, which I quoted above, one can say that it naturally has the form of a written discourse, and, as such, the form of a text. According to the semiotician Winfried Nöth, one can distinguish between a narrow and a broad notion of text. The narrow notion understands text as "a synonym of *discourse*, [in which] the verbal messages under consideration are either oral or written" (Nöth 1995b, 332). In addition, there also exists a broad notion of text which results from the linguistic turn. This notion considers "the most diverse cultural phenomena as texts: films, ballet performances, happenings, pieces of music, ceremonies, or circus acts" (Nöth 1995b, 331).

Tetris is an iconic game within the history of computer games, having been played by many players, including by many who would not consider themselves to be hardcore players (Juul 2010, 8). *Tetris* can thus count as a casual game[58]. Having been distributed on the Game Boy, one of the first and certainly most popular handheld gaming devices in the 1990s, *Tetris* was accessible to a large audience.

One can say that the popularity of *Tetris* turns it into a cultural object, and thus into a symbol charged with meaning. For instance, the song "A Complete History of the Soviet Union as Told by a Humble Worker, Arranged to the Melody of Tetris" by Pig With The Face Of A

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[57] When this contest is staged and represents another contest, it is a form of doing and showing. The representation itself is a praxis, but it also refers to something which one might bluntly call the content or the meaning of this representation. The problem which Murray faces is that a contest in a drama is a form of showing. That means a contest becomes staged. To the player in a football match, however, the contest at hand is a form of doing, and, therefore, primarily a praxis. I have tried to capture this problem earlier (Chapter 3) with the difference between play as a first-order praxis, and therefore as an operating with the game in the mode of ready-to-hand, versus games which are looked at and talked about and therefore become present-to-hand.

[58] Juul provides a definition, describing casual games as "games that are easy to learn to play, fit well with a large number of players and work in many different situations" (Juul 2010, 5). He also concludes that *Tetris* was the first casual game to exist (Juul 2010, 27).

Boy (2010) is, as the title suggests, a witty recounting of the history of the Soviet Union arranged to the music and the imagery of *Tetris*. The song thus makes a clear reference to the semiotic (see e.g. Aarseth 2011) and thus textual elements of the game, and puts them in a different context. Furthermore, the video to the song features the typical tetrominos falling and being arranged. Another proof of *Tetris'* cultural meaning is that *Tetris* is perhaps one of the most parodied games (Möring 2011). *Tetris* is parodied in videos (e.g. CH Staff 2010), other games (e.g. Swing Swing Submarine 2009) and comics (Munroe 2010), as well as in commercials. Not only does Murray's interpretation of *Tetris* have the *form* of a text according to the narrow meaning of the term, but *Tetris* as a cultural phenomenon can be considered a text in the broad meaning of the term, too.

Considering the specific cultural phenomena that Nöth lists, it is very apparent that these phenomena are, classically, approached and interpreted from the point of view of an audience. One can here perhaps also speak of the audience perspective (roughly equal to Leino's third-person perspective). From this textual perspective on cultural phenomena (films, ballet performances, happenings, pieces of music, ceremonies, or circus acts) the point of view of the people involved in the performance and/or production of these sorts of texts are neglected. In computer games, however, there is clearly also an actor perspective (roughly equal to Leino's first-person perspective). The audience perspective conceptualizes the playing of computer games as sort of a representational play, which is meant to be perceived by an audience. The actor perspective conceptualizes playing a computer game as a self-sufficient activity. This is an important distinction which has to be taken into consideration and is very central to the experience of computer games.

Let me demonstrate this concern with Bogost's analysis of *Tax Invaders* (Republican National Committee 2004). In the following, I aim to criticize Bogost's interpretation as a procedural metaphor and essential assumptions from his paradigm of procedural rhetoric. The paradigm of procedural rhetoric is often referred to when it comes to metaphorical interpretations of games.

5.2 Bogost's interpretation of *Tax Invaders* as an example for procedural metaphor

Within his paradigm of procedural rhetoric, Bogost performs an analysis of ideological frames in the game *John Kerry: Tax Invaders* (Republican National Committee 2004, the game will from now on be referred to as *Tax Invaders*). The study is published in several places (Bogost 2005; Bogost 2006a; Bogost 2007) but my criticism will be based on his analysis of the game in his chapter on "ideological frames" in *Persuasive Games* (2007a, 99–120).

Tax Invaders is a political game produced during the 2004 presidential election campaign in the United States of America by the Republican Party. The game is meant to represent the Republicans' rejection of the Democrats' plan to increase taxes. Bogost describes the game as a "modified clone of the classic arcade game *Space Invaders*" (Bogost 2007a, 103). The game's structure is basically the same as in *Space Invaders*, i.e. the player is controlling an avatar which she can move on one axis and with which she can shoot incoming detrimental objects. The player is meant to prevent the detrimental objects from reaching and colliding with the player-controlled avatar: if this happens, she loses a life. The difference from *Space Invaders* is the following: instead of alien invaders, the incoming objects are skinned as specific amounts of taxes. The player-avatar does not look like a stylized cannon, as in the original game: instead it features a picture of George W. Bush, who in 2004 was the Republicans' "weapon" against the planned tax increase by the Democrats.
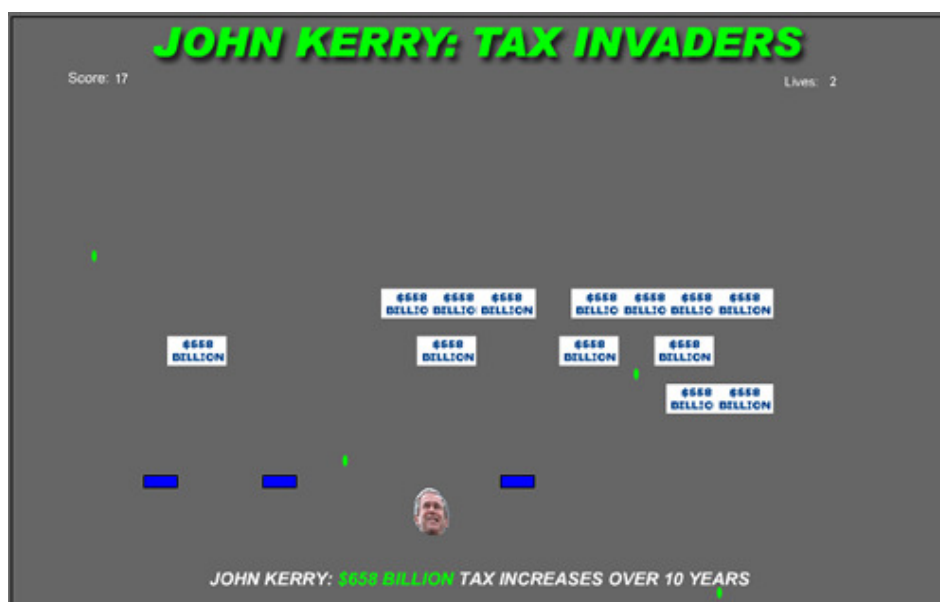
Figure 7*: John Kerry: Tax Invaders* (screenshot from www.molleindustria.org).

In Bogost's words, the game features a "primitive visual and programmatic execution" (Bogost 2007a, 104). Initially, Bogost considered *Tax Invaders* (see figure 7) as therefore exhibiting a "rudimentary" rhetoric as well as a "primitive visual and programmatic execution" (Bogost 2007a, 104). Yet, he has changed his mind and instead now believes the game "represents one of the most sophisticated examples of a procedural rhetorical frame at work in contemporary political discourse" (Bogost 2007a, 104). In Chapter 4, I have already suggested considering *Tax Invaders* a second-order simulation (see 4.3.3.1). *Space Invaders*, the game which *Tax Invaders* is based on, originally simulated war against an alien threat from outer space. However, I also suggested that, in case Chris Crawford's interpretation of *Space Invaders* as a metaphor for societal frustration would become widely acknowledged, and thus conventionalized, it would become a second-order simulation, too. My interest in Bogost's argument is to understand why the game is such a "sophisticated example of a procedural rhetoric," and of procedural metaphor.

5.2.1 Taxation as theft and conservative war rhetoric

In Bogost's view, the game represents a particular Republican framing of tax politics. Bogost's insights are based on George Lakoff's (2002) analysis of metaphorical framings of political discourse, and specifically the differences between liberals and conservatives in the United States of America. Interestingly, the Republicans/conservatives generally tend to conceptualize "taxation as theft" based on their belief that material and monetary property is legal "and should not be punished" (Bogost 2007a, 105). Conservative language thus suggests that they "perceive taxation [...] as government threats to steal what does not rightly belong to them" (Bogost 2007a, 105). In addition, however, it appears that conservatives also apply a significant amount of WAR or STRUGGLE metaphors in their rhetoric. Bogost says conservative rhetoric reveals their belief that "taxation is a 'battle' to be waged" (Bogost 2007a, 105).

How are these metaphors now part of the game? Firstly, the game applies "verbal rhetoric; written text contextualizes the player's actions" (Bogost 2007a, 104). However, its significance as an instance of a metaphoric game, according to Bogost, lies in the fact that the game apparently "extends the verbal metaphor of 'taxation as theft' to the tangible plane" (Bogost 2007a, 105). This tangibility is also something which Rusch refers to when suggesting

metaphor as a means of making abstract phenomena more tangible through games. We have already noted how, according to metaphor theory, abstract ideas are already made tangible in a metaphoric sense in that they are understood in terms of more concrete things. In a way, a game is literally tangible, insofar as a user usually operates the computer with their fingers and hands on a keyboard or other tactile input devices, and does perhaps feel some mechanical force feedback. In this regard, Rusch writes, for the case of *The Marriage,* "an abstract shape can still make an abstract idea tangible, because it has physical properties (it can be seen, touched, moved) while the abstract idea does not" (Rusch 2009).

The problem I see here is related to the notion of "tangibility." Being a term within metaphor theory, it is metaphoric itself, and, therefore, it is difficult to guess what Bogost and Rusch really mean here. Do they mean that an idea is tangible in the metaphoric sense of tangibility? For the case of *The Marriage,* one could thus say that "tangible" actually means "visible." in that the game makes the source domains of the metaphor visible. In this regard, the term "tangible" is used metaphorically. If the authors would refer to some sort of feedback, which refers to the sense of touch, than it would be a different story, and the notion "tangible" would be used non-metaphorically. Yet, within metaphor theory, the notion of tangibility, despite being used metaphorically itself (metaphor theory knows that it cannot talk about metaphor without using metaphors itself – the inherent paradox of metaphor) the notion means that abstract things are understood in terms of more concrete things and therefore become "tangible" or "graspable."

Unfortunately, the authors do not pursue this thought of tangibility with regard to a game. Yet every avid *FIFA* player knows that the game can be a very bodily experience, which is very much related to the tactile senses. Being very invested in and focused on a match, it is possible that the analog sticks on the Xbox 360-controller are pushed much harder, so that after a while of playing hands and fingers hurt. In this regard, one can say that the competition of a competitive game becomes literally bodily tangible.

5.2.2 Criticizing Bogost's interpretation within the framework of procedural rhetoric

Bogost's project to establish the paradigm of procedural rhetoric, as introduced in section 1.4.2, has to be seen in a critical light. Following Gonzalo Frasca's and Christopher Paul's

criticism (see Chapter 1), Bogost overemphasizes the significance of the rules to convey a procedural message. This seems to be due to the fact that Bogost (2007a) is following Murray (1997), who identifies four basic qualities of computer games, which there are "procedurality, participation, spatiality, and encyclopedic scope" (Murray 1997, 71–90).

1. Procedurality hereby defines the capacity of computer games "to execute a series of rules" (Murray 1997, 71). This is due to the fact that computer games are basically software run on a computer.

2. Secondly, games are "participatory." Murray refers hereby primarily to the responsiveness of a virtual world, which provides a player with meaningful feedback to his interactions (Murray 1997, 74–79). However, with Aarseth, one can say that games require participation on a much more basic level. Many games would not come into being when not engaged by an actor. This essential "nontrivial effort" Aarseth is speaking of (1997, 1) is a condition of possibility for a game to happen in the first place. If nobody acts in *Tetris* the game will simply finish itself.

3. Thirdly, games are spatial. Murray writes that "linear media such as books and films can portray space, either by verbal description or image, but only digital environments can present space that we can move through" (Murray 1997, 79). Murray indeed has a point here in saying that games are essentially spatial. This is, among others, proven by means of a discourse of game studies which observes games from the angle of their spatiality. I will get back to this a little later in this chapter (see section 5.3).

4. Fourthly, Murray suggests that games are encyclopedic. This refers to a characteristic which Crawford described as "data intensity" (2003, 89). Crawford offers a distinction between process- and data-intensive games: "process intensity is the degree to which a program emphasizes processes instead of data" (Crawford 2003, 89). Data intensity then describes games which rely on a quantity of data. As an example, one can say that *Tetris* is a process-intensive game, whereas *Myst* (Cyan 1993) is a data-intensive game.[59] When Murray speaks of the encyclopedic character of games. she refers to the data capacity of computer games rendered possible by the ever-increasing data capacity of computers: "the encyclopedic capacity of the computer and the encyclopedic

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[59] Crawford himself uses *Myst* as an example for a data-intensive game which integrates processes much better than other data-intensive games.

expectation it arouses make it a compelling medium for narrative art" (Murray 1997, 84). In this regard, all kinds of images, sound and text are elements of a game's data, and, as such, part of a game's semiotics. If games, according to Murray, now rely more on their encyclopedic aspects and, as such, on data, it seems correct to assume that most of a game's meaning is conveyed via its semiotics.

Particularly in the light of this fourth quality observed by Murray in digital games, it becomes even more questionable how Bogost can insist on claiming that a game conveys its meaning via rules/procedures. It seems that Bogost emphasizes the rule aspect or the procedurality particularly because this is to him the distinguishing characteristic between games and other media such as film, cartoon, and other sorts of texts.

This problem becomes very obvious in Bogost's analysis of *Tax Invaders,* which opens with verbal rhetoric. The starting screen of the game welcomes the user with the following words "Only *you* can stop the tax invader" and "Save the USA from John Kerry's Tax Ideas" (Bogost 2007a, 105). These lines are clearly textual elements of the game, and have nothing to do with its procedures. As such, it is questionable if it is at all possible for the procedures of the game to convey a meaning themselves independently of its textual or semiotic elements. This strong emphasis on "verbal rhetoric" (Bogost 2007a, 104) makes it difficult to speak of a "pure" procedural rhetoric. A procedural rhetoric, one might say, should actually work without textual elements. However, with regard to computer games, this is, by definition, not possible, given that games necessarily contain some form of textual or, more broadly, semiotic elements. Even games in which semiotic elements merely provide an informational layer addressing the game system instead of a thematic layer (see Järvinen in section 1.2.2) still feature semiotic elements. In other words, inferences on procedures in games are only possible through its semiotics.

Wanting to see *Tax Invaders* in the light of his procedural rhetoric, Bogost calls the game a "procedural metaphor" (Bogost 2007a, 108) due to "the game's remarkable translation of the frame of taxation-as-theft from verbal to procedural form" (Bogost 2007a, 106) which, as I have already noted, makes the metaphor "tangible".

5.2.3 Procedures can be and are represented through imagery and text in games

Bogost's emphasis on the procedural element in the "rhetoric" of games contains another problem, which is interrelated to the problem of the significance of text/semiotics. This second problem concerns the overemphasis on the idea that procedurality provides a specific form of representation. Bogost seems to neglect the fact that processes can also be represented through non-procedural media, such as, for instance, schematic images or diagrams: an example of this is the water cycle, also known as the "hydrologic cycle," which represents "the continuous movement of water on, above and below the surface of the Earth" (see "water cycle" in Wikipedia). In the respective Wikipedia article, this cycle is visualized through a schematic diagram depicting a stylized landscape with an oceanic region, a coastal region, a more continental region with mountains and a subterranean region. The water cycle is represented by different arrows which, taken in unison, describe a circle. Accordingly, water emerges from the ocean, condensates in the atmosphere, precipitates in cooler regions such as the pictured mountains, infiltrates the soil and reaches the level of groundwater, which, finally returns to the ocean (see "water cycle" in Wikipedia).

What this example proves is that it is very possible to demonstrate processes through non-procedural media. Since games are a hybrid consisting of game mechanics and semiotics, the semiotics as such represent the non-mechanical aspects of games. In this regard, one can follow Andreas Gregersen, who says "even though all simulation is representation, not all representation is simulation understood in a strict procedural sense" (Gregersen 2008, 169). Still, non-procedural representation can represent procedural things in a non-procedural way.

To be fair, I am not saying that Bogost is not aware of the problem that procedures can also be represented through non-procedural media. After all, he acknowledges that:

> "*Tax Invaders* mounts its argument partly through verbal rhetoric (the text inside the game) and partly through visual rhetoric (images of George W. Bush as hero, the imposing descent of taxes) [...] [and] borrows [...] rules entirely from another videogame" (Bogost 2007a, 109).

It seems Bogost is aware of the significance of textual and visual rhetoric for the interpretation of the game. Yet, this makes it appear even more questionable that Bogost does

not re-evaluate his fundamental claim that the meaning of games lies in the rules of their system and can be conveyed through it.

5.2.4 Five problems with Bogost's analysis of metaphors in *Tax Invaders*

What is striking in Bogost's analysis of *Tax Invaders* is that the game's message could certainly also be conveyed with a cartoon featuring a re-skinned *Space Invaders*. Bogost himself suggests this:

> "One could imagine a political cartoon that literalized the verbal metaphor of legislation as battle. One side might throw out proposals for new laws or candidates for official posts, which the opposing side would view as assaults rather than propositions, upon which they would then open fire. Such a cartoon might effectively illustrate one party's unwillingness to consider the other's potentially legitimate proposals. Such a cartoon would illustrate the verbal metaphor, rendering that metaphor into its visual equivalent" (Bogost 2007a, 106).

This quote from Bogost's analysis invites for five interesting observations regarding Bogost's particular analysis but also his concept of procedural rhetoric.

1. Firstly, the role of gameplay in Bogost's analysis is problematic. I argue that Bogost and Murray understand playing the interpreted games as some sort of role-play.
2. Secondly, one can ask, if both the game and the cartoon can convey the message, what is the advantage in making a game instead of a cartoon?
3. Thirdly, I am observing that games understood from the perspective of procedural rhetoric are commonly not very complex. This might foster the conclusion that they are primarily seen as texts.
4. Fourthly, Bogost himself largely uses notions from the domain of the visual in order to account for how games can convey messages. There seems to be an intriguing bias in his concept of procedural rhetoric which suggest the opposite of what Bogost claims: the message is not conveyed by the procedures but by the visual representation of a game.
5. Fifthly, the notion of procedural metaphor as suggested by Bogost is as problematic as his concept of procedural rhetoric. Since procedures can be represented through

non-procedural media, metaphors can also refer to procedures. Games are not necessary for this. I will address these problems in the following ways.

Firstly, despite suggesting some political cartoon (and thus a non-procedural medium) to convey a similar message, I do not have the impression that Bogost considers the imagery of *Space Invaders*/*Tax Invaders* as the content of this cartoon. This is obviously possible. Assuming the case that he willingly ignores this option, then this is clearly a tactical step in favor of putting the game *Tax Invaders* in a more unique position in order to point out the alleged advantage of the game as a means of rhetoric as opposed to more classical non-ergodic media such as cartoons, texts or, more generally, "words and images:"

> "*Tax Invaders* frames the metaphors of its rhetoric as embodied activities, not as words or images. Bush (and the player) fire projectiles at the tax hikes, representing the metaphor of taxation as enemy threat" (Bogost 2007a, 106).

This quote demonstrates that Bogost sees the advantage of the game in its capacity to turn the rhetoric into an activity, as opposed to making it readable through textual elements. Here Bogost is operating on the crucial difference between games and play, which are simultaneously performances and representations, or a form of doing (play as activity or performance) and a form of showing (play as representation). However, as I have pointed out earlier in this chapter, this distinction goes along with two different observer positions, the first-person point of view (performer/actor) and the third-person point of view (viewer/audience). What is problematic in this perspective is that Bogost claims that it is the activity-part of playing the game that is important for the message to be conveyed. However, he does not refer to this activity in a more specific way than in the following sentences in his analysis. About the playing the game, Bogost says things such as:

> a. "Instead of combatting a swarm of descending aliens, players defend the country against John Kerry's tax plans" (Bogost 2007a, 103).
>
> b. "The player combats potential John Kerry tax cuts" (Bogost 2007a, 103).
>
> c. "…the player controls the head of George W. Bush" (Bogost 2007a, 103).
>
> d. "the player completes the game's argument by firing the projectiles that defend the nation from Kerry's potential tax plans" (Bogost 2007a, 105).

e. "Bush (and the player) fire projectiles at the tax hikes, representing the metaphor of taxation as enemy threat" (Bogost 2007a, 106).

f. "to play the game at all he [the player] must step inside the skin of the taxation opponent, viewing taxes as a foreign enemy" (Bogost 2007a, 106).

g. "the player character combats them [aliens descend continuously] before they reach the bottom" (Bogost 2007a, 108).

h. "Here the battle is both metaphoric and material – the player actually does battle against taxes, in a literal sense" (Bogost 2007a, 108).

i. "For liberals, *Tax Invaders* reinforces the conservative frame on taxation, forcing such players to enact the conservative position that taxation is a theft rather than a contribution to the common social good" (Bogost 2007a, 108).

From Bogost's observation, it becomes obvious that operating the game is a subordinated kind of play. As such, he does not refer to any individual game state and how this might affect any metaphor involved. More important to him is the representational aspect of play that comes to the fore in, for instance, the case of acting. Therefore, one can assume that Bogost's interpretation clearly sees the game from a third-person point of view, and is more interested in what the game shows than what the game is. This becomes obvious when he says, in example phrase i., that "players […] *enact* the conservative position," or, in example phrase f., that "[the player] must *step inside the skin* of the taxation opponent." *Enactment* and *stepping inside the skin* (itself a metaphor) are clearly referring to play as mimicry or as roleplay. The same goes for Murray's reading of *Tetris* which she calls an "enactment" (Murray 1997, 144). She thus makes the same move as Bogost.

In addition, playing the game, according to Bogost's analysis, is framed purely within the theme of the game, and, as such, is already contextualized in a specific way. Consequently he says, in the example phrases given above, a. "players *defend* the country," b. "the player *combats* potential John Kerry tax cuts," c. "the player *controls*," e. "Bush (and the player) *fire* projectiles at the tax hikes," g. "the player character *combats*," h. "the player actually does *battle* against taxes." However, approaching the game from a specific perspective (here: TAX POLICY IS WAR) and then describing the game in the same words in order to argue for the plausibility that this

perspective is supported by the game is a circular argument. It comes down to saying that the game represents tax policies since it represents tax policies.

Except for phrase c., the notions of *defending, combatting, firing, battling* clearly belong to the realm of struggle or war and, as we have seen, these terms are so essential for Western thought that it is not surprising that they come up with regard to politics as well as to games. Yet, these terms can be used with regard to so many games they have to be termed far too general to be useful as observations of the particular game *Tax Invaders*. They do not say anything about playing the particular game itself. Instead, Bogost holds that "the player *completes* the game's argument by firing the projectiles that defend the nation from Kerry's potential tax plans" (Bogost 2007a, 105). By saying the player would complete the argument, Bogost is clearly arguing for playing the game as some sort of text fulfillment. In this regard, he treats the game like the performance of a pre-written and practiced theater piece, which only achieves the completeness of a theater production when it is performed. The same seems to be the case for the playing of *Tax Invaders* and, as such, for most games of procedural rhetoric. These sorts of games require the player to fulfill the performance until the "meaningful" piece of text has been constructed.

It seems to me that playing the game is merely necessary in order to gather information about the game's theme, but, as such, is not an end in itself. Thus, playing the game becomes a means to produce certain images or texts which help to understand the "meaning" involved. It appears that this is the case with many games exhibiting a "procedural rhetoric" or games with an agenda (see Chapter 4) since these games are not meant to be "played." It rather seems to me that operating these game objects is merely a form of text fulfillment. As such, the "player" becomes an agent to help a certain message to occur. Operating the game is thus only necessary until the "message" has been received by the user. In this regard, it seems that operating the game is meant to decode the hidden message (see Nöth 1995a).

Markku Eskelinen has famously phrased Aarseth's distinction between non-ergodic and ergodic art (games) in the following way: "in art we might have to configure in order to be able to interpret whereas in games we have to interpret in order to be able to configure" (Eskelinen 2001). This clearly also counts for the difference between non-procedural media and procedural media, which are just different terms for non-ergodic and ergodic art, albeit with an emphasis on their processual aspect instead of the work aspect which is required by a

user of ergodic artworks. Thus, for procedural rhetoric, one would need to rephrase Eskelinen's sentence in the following way: one needs to interpret in order to be able to configure in order to be able to interpret. Yet, Bogost does not speak about how the configuration of the game contributes to the interpretation. The only thing he claims is that the game would make the metaphor tangible (Bogost 2007a, 105). It remains unclear if it is really the metaphor which is tangible or simply the game object. As I have already suggested, the notion of tangibility is problematic since it is itself metaphoric, and can therefore mean a metaphoric tangibility.

A related critical observation which questions the significance of playing the game for Bogost's analysis is that he is merely speaking of the general setup of the game and does not relate to different game states or the like and adapts his interpretation accordingly. The same goes for Murray's interpretation of *Tetris,* and Eskelinen raises a similar criticism to her interpretation:

> "Instead of studying the actual game Murray tries to interpret its supposed content, or better yet, project her favourite content on it; consequently we don't learn anything of the features that make Tetris a game" (Eskelinen 2001).

Eskelinen's criticism is similar to the criticism levelled towards Bogost. In both cases, one can assume that playing the game seems to be necessary only for the reason of interpreting the form of the game in the light of a particular content. In the cases of both game interpretations, *Tax Invaders* and *Tetris,* it also seems that this content is successfully conveyed independently of the player's performance. No matter if she plays successfully or not, the ideas which Murray and Bogost interpret in *Tetris* and *Tax Invaders* hold even without referring to the gameplay in particular.

In addition, one can also ask: why is *Tax Invaders* predestined to represent the "tax policy is war" rhetoric? It seems to me that tennis, for instance, could also allow for the same interpretation. One can assume that each ball being played to one player symbolizes a tax increase that the player tries to avoid by literally rejecting or returning it. Also, football viewed from the perspective of the goalkeeper can be "read" in the same way if we interpret each ball which is shot towards the goal as a new tax burden. Even *Tetris* can be read as a piling-up of tax burdens which the player has to get rid of by "negotiating them away." Consequently, we have a problem of interpretation, since many games can account for the same interpretation,

which makes it questionable why a particular game such as *Tax Invaders* should be defined by this same specific interpretation. This seems to be more evidence for the problem of the plausibility of game interpretations.

One can conclude that Bogost and Murray are actually not analyzing the playing of the game. However, the question that follows from that is: what are they interpreting instead? To me it seems that both Bogost and Murray in fact interpret texts which are constructed around the game objects as a result of multiple public and private conversations about, and reflections on, the games in question, as well as recontextualizations resulting from their use in different contexts, such as advertisements. This means that games are not metaphoric through their operation by the player, but they become metaphors in a reflection process, in that all topics which are somehow agonistic in nature can be understood in terms of a game featuring agonistic structures. However, this requires that the game is verbalized in the first place, and thus transformed into text. Yet, we should keep in mind the point made by Sutton-Smith, who, in the Wittgensteinian tradition, says that, "it is clear that verbalizations about a ludic experience are not the same as that experience" (Sutton-Smith 1997, 216). By speaking about games, we automatically produce a lot of text which is – and this is really important, not the game itself, and, in fact, sometimes says very little about how it feels to play a game. This is the case since the verbalization is again an observation of second-order, whereas playing the game is an observation of first-order.

With this in mind, it is possible to reconstruct how the idea of *Tax Invaders* might have come into existence in the first place. It appears not unlikely that the Republican campaign staff combined the game's visual representation featuring stylized aliens approaching a similarly stylized cannon which is supposed to shoot them off in order to avoid a possible collision between the cannon and the aliens with a thought of contrary positions in tax policy between conservatives and liberals. As such, it is, furthermore, not unlikely that the metaphoric mapping between the two thoughts actually happened before the game in the minds of the inventors – similarly to what we argued in the case of *The Marriage* – so that the game itself, again, is at most a simulation of a pre-existing metaphorical mapping.

On the visual or textual layer, the game features a very basic agonistic structure which easily maps with the agonistic structure of opposing political positions between liberals and conservatives. However, thinking of Clausewitz, who said "war is the continuation of politics

by other means" (Clausewitz 1984, 87), one can also think of policy being another *form* of war, particularly when Lakoff and Johnson suggest that arguing is primarily understood in terms of war or struggle (Lakoff and Johnson 2003, 3–6, 264–265). As already remarked in Chapter 3, all sorts of struggle can be depicted in a war-like setting such as a duel. With regard to the probable scenario we have sketched out for the invention of *Tax Invaders,* one can thus assume that there was perhaps an image of *Tax Invaders* before there was the game object *Tax Invaders.* This image could have had the form of a cartoon. Yet, putting the metaphor back into practice – i.e., into a game – actually means de-metaphorizing the metaphor again.

In my view, the question Bogost would need to answer, in order to strengthen his argument for procedural rhetoric, is in what sense playing the game contributes to a better understanding of the arguments involved.

The second objection to Bogost's argument is revealed when we consider that the quote in which Bogost suggests the possibility of a political cartoon can also be understood in the sense that he actually has a cartoon in mind depicting the imagery of *Space Invaders*, recontextualized through a caption with a sentence such as "Tax Invaders" or "Only *you* can stop the tax invader" (Bogost 2007, 105). The latter option would frame the game *Space Invaders* within the frame of tax politics and the 2004 government election campaign. By directly addressing the viewer/voter, it would put her in the position of agency, highlighting her capacity to stop the liberals' tax plans in that she can simply vote against them. If this cartoon is signed by the Republican party, the viewer will easily make the connection between the *Space Invaders* game and current political discourse in the media. Yet, to me it seems like it is not at all necessary to play the game *Tax Invaders* in order to understand the message. *Space Invaders* can be considered a cultural text in the same way as *Tetris*. This fact, is for instance, acknowledged by Bogost ascribing the game "a tremendous cultural currency" (Bogost 2007a, 106). Furthermore, he adds:

> "*Space Invaders* was first released in 1978, making it a good fit even for voters in their forties and fifties, who might remember playing the game in bars and arcades, as well as younger voters who could not have escaped *Space Invaders'* cultural wake" (Bogost 2007a, 106).

Thus, *Space Invaders* is generally an icon of pop-culture and a milestone within the history of computer games. Frans Mäyrä states the game was an important early instance of the so-called

"shooter" game category (Mäyrä 2008, 65). Additionally, *Space Invaders* was an important element of the US American youth culture in the late 1970s and early 1980s and represents the emergence of the "video arcades" (Farr and College 2009, 35). Another indicator for *Space Invaders'* cultural significance is Mäyrä's observation that:

> "*Space Invaders* was one of the first recorded incidents of a games-related 'media panic' (called also [sic] 'moral panic'), as the residents of Mesquite, Texas, took their case all the way to the US Supreme Court in trying to get the game banned from their town" (Mäyrä 2008, 65).

In this light one can assume that certain knowledge about the admittedly not very complex game can be regarded as common cultural knowledge. Thus, this would be absolutely sufficient to understand a comic depicting the imagery of *Space Invaders* with the suggested caption or even the imagery of *Tax Invaders*. Particularly in the case of *Tax Invaders* as a game with a message it seems very questionable to what extent playing the game should contribute to the understanding of the message. This leads to a third problem.

The third problem with procedural rhetoric games is that they are usually very small and not very complex. In Aarseth's terms, the ideal game object and the actual experienced game object do not show many differences (Aarseth 2011, 65–66). Aarseth suggests that games cannot be grasped in some sort of "general play session"; instead players usually experience individual play sessions (Aarseth 2011, 65). Thus, there is a difference between a so-called "implied game object" and the "actual game object" (Aarseth 2011, 65–66). The implied game "is imagined by the player as what the game is, or ought to be" (Aarseth 2011, 66). The actual game is that which a player experiences in each session of gameplay (Aarseth 2011, 65–66). Consequently, in games of low complexity, such as *Tetris* (Aarseth's example) or *Space Invaders,* the difference between the implied game object and the actual game object is rather small. An example for a complex game is *The Elder Scrolls V: Skyrim* (Bethesda Game Studios 2011). Here a player would need plenty of hours' worth of gameplay sessions in order to get to know the game, and, even then, the difference between the implied game object and the actual game object would be significantly larger than in the case of *Tetris*.

Still, one can hold that many other much more complex and larger games featuring a game environment which represents essential elements of the world we live in contain at least the essential requirement for metaphoricity according to Lakoff and Johnson: space. For instance,

The Elder Scrolls V: Skyrim or *Grand Theft Auto IV* (Rockstar North 2008) feature large gameworlds with a central character controlled by the player. A basic operation (or "unit operation" (Bogost 2006a)) in these games consists of moving the character through the gameworld, and, therefore, JOURNEY metaphors can potentially be read into those games. Yet, getting back to *Tax Invaders,* even Bogost admits it is "a simple game" (Bogost 2007a, 105). It is so simple that individual game states do not matter, and through a few gameplay sessions the player can grasp to a good degree what the ideal game object is. If procedural rhetoric games were too complex, and would leave a player with too many different options, the argument they would want to convey would be at risk. For *Tax Invaders*, I would hold that the idea is clear within the first seconds of gameplay. This is equally clear when just reading the introductory text in the beginning of the game.

Thus, I would argue again that tax policies and politics as such are always already framed in terms of a sort of STRUGGLE, and thus imply a model of a duel from the beginning. "Putting" this meaning into a game which itself is commonly perceived as competitive since it seemingly features two opposing parties, such as *Space Invaders* or *Tax Invaders,* then supports again my idea of a de-metaphorization of an originally metaphoric thought, since all that is left in the game is some sort of STRUGGLE or competition.

One can hold that, on an experiential level, it is possible that the de-metaphorization or the SimCity effect does not set in, since procedural rhetoric games are only played until the message has been received. Commonly, games of procedural rhetoric are per definition not meant to be played in their own right, and, therefore, do not necessarily support extended gameplay. This might be some sort of a security mechanism against a de-metaphorization or SimCity effect. I would hold that the low complexity of most such games contributes to this thought. Thus, when players have the impression that they "got" the message, there is no sense in continuing gameplay.

The fourth problem is that the whole idea of procedural representation is generally thought from a visual or textual perspective, in that Bogost, throughout his book, uses the verb "to depict" to address the representative aspect of procedural representations. As such, he keeps saying things like "procedural representation depicts how something does, could, or should work" (Bogost 2007a, 58) or "[*Antiwargame*] depicts a very stylized United States with blue and green characters inside; the blue ones are ordinary citizens, the green are military" (Bogost

2007a, 82), or "in *September 12*, the rules depict the impossibility of achieving a goal given the tools provided" (Bogost 2007a, 88).

Admittedly, one can call this nitpicking, since language allows us to call all kinds of representation as 'depiction,' but I believe there is more at stake. From the perspective of metaphor theory, one has to assume that the verb "to depict" operates here metaphorically as a substitution. In this case, the verb is used instead of, for instance, the term "to represent." Nevertheless, cognitive linguistic metaphor theory in particular also suggests that the notion of representation then is to some degree understood as a depiction, and, therefore, carries a clear visual bias. Thus, one has at least to remark critically that when Bogost uses the notion "to depict" with regard to the representative aspect of procedures, he thinks of this representation as something visual. This is a crucial problem, since it is another indicator that Bogost's thought operates on the visual and textual plane, and thus on the level of non-ergodic or non-procedural media. Again, as I said, this is not necessarily Bogost's individual mistake, since it is just the way we think. Nevertheless, when dealing with such a delicate problem as the difference between games as a first-order observation (operating or playing the game/performance) and a second-order observation (looking at the game/representation) this has to be taken into account. Consequently, in order to make a stronger argument for procedurality, Bogost needs to reflect this problem and adjust his premises accordingly.

The fifth problem regards Bogost's notion of the "procedural metaphor," which Bogost uses explicitly to denote the special quality of the game object *Tax Invaders*. This gives the impression that metaphoric games in particular are required to fulfill the concept of a procedural metaphor. In other words, only metaphoric games can make us understand what a procedural metaphor is.

Instead, one can assume that many metaphors always already allude to certain procedures without having to be made tangible in a game. This argument is thus similar to my criticism that all kinds of procedures can be represented in a non-procedural way. In particular, the war rhetoric of the Republicans certainly contains the more basic metaphor for arguing, ARGUMENT IS WAR, which clearly is part of any kind of disagreement which is supposed to be solved through an ongoing exchange of arguments. It requires only a little fantasy and some life experience to imagine an ongoing argument as a to-and-fro movement of speech acts

made by representatives of the different opinions. One party will "attack" the other parties' opinion, the other party will "defend" its standpoint, perhaps one of the parties will "give up" an admittedly "weak" position, and so on.

This is clearly itself a procedure, and does not need a game to be understood. As I have already shown in Chapter 4, the definition of metaphor means understanding one kind of thing in terms of another, and this obviously also covers understanding one procedure in terms of another, as in the case of ARGUMENT IS WAR or LIFE IS A JOURNEY. Admittedly, these metaphors leave a lot of space for interpretation regarding which procedure one is speaking of.

Clearly, "LIFE IS A JOURNEY" and "ARGUMENT IS WAR" are very broad and general metaphors. Nevertheless, even though they do not refer to a more specific procedure, they at least convey a procedural characteristic. One can read the notion of "fighting tax increases" as a particularly competitive way to make a point for one's own position towards tax increases, which can then be called a particular war rhetoric with regard to certain topics such as taxes. However, when fighting tax increases as a Republican politician, I always already also fight for my position on a more general level of arguing in the political discourse, and according to the culture of doing political discourse.

5.2.5 Literalization/de-metaphorization

Finally, Bogost's and Murray's metaphoric interpretations of *Tetris* and *Tax Invaders* show interesting similarities, which suggests that both address games with a similar bias. I believe Bogost's interpretation, as well as his concept of procedural rhetoric, bears some problems which are essential to understanding the significance of metaphor in games – and so does Murray's interpretation. Apart from the fact that a) both seem to analyze the games in a very general way which does not refer to the game at play and b) both conceptualize the playing of the game as some sort of text fulfillment and/or roleplay, there are more critical commonalities in their interpretations. One is concerned with the literalization of metaphor or de-metaphorization in games, and the other with the presence of STRUGGLE/WAR and SPACE metaphors in their interpretations.

In line with my suggestion of a de-metaphorization of games for *Tax Invaders,* Bogost speaks correctly of a "literalization" of the metaphor for both the possibility of a cartoon (Bogost 2007a, 106) and the game. For the game Bogost holds "the player actually does battle against taxes, in a literal sense" (Bogost 2007a, 108). He frames this in terms of Austin's and Searle's speech act theory, and assumes that "*Tax Invaders* offers the unique ability to convert perlocution into illocution" (Bogost 2007a, 108). Bogost uses the two notions synonymously with direct and indirect speech, and thereby repeats the classic idea of a literal and a figurative expression (the latter being similar to metaphor). In this regard, the meaning of a perlocutionary speech act is figurative and has the goal of persuading through this indirectness (Bogost 2007a, 108). According to Bogost, politicians in political speech are aiming for this effect. *Tax Invaders,* according to Bogost, does it the other way round. Instead of aiming for the effectiveness of indirect persuasive speech, it emphasizes the illocutionary speech act, which Bogost considers to carry literal speech (I believe the only genuinely literal speech act is the locutionary speech act, in that it means what it says). In this regard, *Tax Invaders* is, to him, literalizing the STRUGGLE and WAR elements of tax policies.

George Lakoff suggests that "conventional metaphors are made real in cartoons" (Lakoff 1993, 241). He gives the example of the conceptual metaphor ANGER IS A FLUID IN A CONTAINER, which is contained in expressions such as "'boiling mad' or 'letting off steam'" (Lakoff 1993, 241). "[I]n cartoons," he adds, "anger is commonly depicted by steam coming out of the character's ears" (Lakoff 1993, 241). From the perspective of cognitive metaphor theory, one can therefore say that the cartoon provides evidence for the existence of the ANGER IS A FLUID IN A CONTAINER metaphor in human thought. The cartoon itself represents the target domain ANGER, perhaps through a related facial expression, and the source domain through "steam coming out of the character's ears." One could say that this can also be done with computer games, which is certainly true. But Bogost's argument claims to be based on a procedural metaphor, not a pictorial one.

This is similar to my analysis of *The Marriage* in the previous chapter, in which I concluded that the game does not represent the topic of LOVE. Instead, it represents the spatial basis of its source domain. Hence, I argued for a de-metaphorization according to the SimCity effect resulting after a while of play. Clearly, the same can be said for *Tax Invaders,* as it features the spatial conditions which are essential for an archetypical model of competition as suggested in

Chapter 3. Considering the SimCity effect, what is left in the game is, again, a negotiation of space, and in this regard *Tax Invaders* does not differ from *Space Invaders*. In both cases the player tries to keep the incoming entities from colliding with the player avatar, whether this is presented as a cannon or as George W. Bush. I would hold against Bogost that the player does not literally battle the taxes, but the player simply *battles* literally when playing the game, if only against the resistance of the game.

Yet, I have already shown that, when speaking about what the player allegedly does when playing *Tax Invaders,* Bogost primarily uses notions from the domain of WAR and STRUGGLE. Something similar can be observed in Murray's analysis as well. In the following, I will show how the interpretations of *Tax Invaders* and particularly of *Tetris* are infused with notions of STRUGGLE and SPACE.

5.2.6 Agon and Space in Bogost's and Murray's interpretation

As I have pointed out in the beginning of this chapter, I want to focus on elements of agon and space in games, since it seems that an agonistic element is always already part of most games, and so is space. To me it seems very interesting to approach the interpretation which *Tax Invaders* provides of *Space Invaders* and the interpretation Murray performs with regard to *Tetris* from the perspective of agon and space, since I believe this is an essential element of a de-metaphorization of allegedly metaphoric games.

There has been an intensive discussion of Murray's "reading" of *Tetris* (see above) by Begy (2010; 2011), Eskelinen (2001), Rusch (2009) and Bogost (2006a) which primarily focuses on the question of whether or not Murray's reading is a viable interpretation of the game. Bogost defends Murray's reading as "biased, subjective " but "viable" (Bogost 2006a, 101, 100), while Eskelinen categorically rejects it because, as we have already seen, it does not say anything about the game. Bogost points out that Eskelinen's interpretation is purely interested in formal aspects of games, whereas Murray's analysis is primarily interested in the content (Bogost 2006a, 100–101).

Apart from this, Murray's reading is commonly referred to when it comes to questions of metaphor and games (Rusch 2009; Begy 2010; 2011; Ensslin 2012, 76[60]). Despite dealing with Murray's interpretation from the perspective of metaphor, none of the commentators thought about having a look at the linguistic metaphors Murray applies in her own interpretation and what that can tell us about the metaphoricity of *Tetris*. The same goes for Bogost's reading of *Tax Invaders*.

Therefore, I propose to re-read Bogost's and Murray's interpretations of the respective games, and hold that we will realize that they consist of SPACE and STRUGGLE/WAR metaphors. Let us have another look at Murray's interpretation under the premise of SPACE and STRUGGLE/WAR metaphors:

> "the perfect enactment of the *over*tasked lives of Americans in the 1990s – of the constant *bombardment* of tasks that demand our attention and that we must somehow *fit* into our *overcrowded* schedules to *clear off* our desks in order to *make room* for the next *onslaught*" (Murray 1997, 144).

Let us keep in mind that game studies has hitherto primarily discussed her interpretation of *Tetris* as being some sort of work in terms of whether or not it is a viable interpretation. What is interesting now is that Murray chooses words from the semantic domain of STRUGGLE/WAR, such as "bombardment" and "onslaught" for her interpretation of TETRIS IS WORK. STRUGGLE and WAR can be considered as being synonymous with AGON. One reason for this might be that we always already conceptualize stressful work situations in terms of STRUGGLE/WAR, and therefore would choose the same words to describe a normal stressful work situation in the same way. It is interesting to see that these terms are used with regard to objects which are called games. Hence, one can argue that Murray perhaps primarily refers to the agonistic aspects of the game as such. If this is the case, then any interpretation in terms of a topic that involves the domains of WAR/STRUGGLE might seem viable for the game. This, however, makes it questionable whether she is really talking about the game in terms of WORK or just about an element (STRUGGLE) which is contained in our conceptualization of WORK. This STRUGGLE element might then stem from an original or primordial experience of some

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[60] Astrid Ensslin refers to an ambiguity in Murray's interpretation, noting that the game had been "invented by Russians" whereas Murray reads it as an enactment of an American's work life. Ensslin therefore terms Murray's interpretation "highly subjective" (Ensslin 2012, 76). This might indicate that interpretations of games are generally ambiguous.

sort of existential struggle, which is repeated in many concepts over the development of language and culture. Or, according to the idea of primary metaphor, all sorts of FORCES or STRUGGLES are experienced through child development and then related to more complex and abstract concepts such as WAR and WORK.

Apart from agon, Murray also applies a good amount of metaphors from the domain of space. As such, she speaks of "*over*tasked lives," "tasks [...] that we must somehow *fit* into our *overcrowded* schedules," and "*clear off* our desks" to "*make room.*" On the one hand, this demonstrates how much we conceptualize abstract phenomena such as WORK in terms of SPACE, and particularly in terms of CONTAINERS (Lakoff and Johnson 1999, 31–32). Speaking of overtasked lives lets us think of the work life as being some sort of container which has a limited volume that can be exhausted. The very common notion of "workload" exemplifies this. This is furthermore supported by the next phrase, according to which tasks have to *fit* into a schedule. A schedule itself is a spatialization of time, making it a resource. Thus, it appears that work consists of a continuous cycle of filling and emptying space. And it seems to be no coincidence that work, when thought of as a cyclical process, also supports Gadamer's idea of play as a to-and-fro movement. Yet even the domain of STRUGGLE/WAR refers itself to spatiality. As such, I have suggested in Chapter 3 that the idealtypical model of agon as a duel is a spatial configuration of two opposing forces. In this regard, making room and clearing off can also be read in terms of a very play-typical agonistic setting.

As I have already observed, Bogost uses many terms from the domain of STRUGGLE/WAR in order to describe the experience of playing *Tax Invaders*. Clearly, terms from the domain of STRUGGLE/WAR are both elements of political thought, and thus also of speech, but, at the same time, also of all kinds of war scenarios. For instance, the election campaign is called "Wahlkampf" in German ("election battle"). Thus, politics are generally considered as some sort of STRUGGLE or WAR. It is not surprising, then, that even a disagreement about tax policies is framed as WAR or STRUGGLE. The designers of *Tax Invaders* also understand the game in terms of a war-like STRUGGLE. The introductory screen asks the player to "*save* the USA from John Kerry's tax ideas" (Bogost 2007a, 105). In addition, this struggle is understood in terms of SPACE, as I have suggested in Chapter 3. The introductory screen of the game says, moreover, that "only *you* can *stop* the tax invader" (Bogost 2007a, 105). As such, the word "stop" can here be understood in terms of SPACE, with the enemy being

understood as coming closer and therefore becoming threatening. But "stop" could also be understood in terms of a more general notion, as in the sense of "putting something to an end." In the latter suggestion time is also understood in terms of space. Cognitive linguistics holds that the concept of time is largely understood in terms of space. Lakoff and Johnson write:

> "Time is as basic a concept as we have. Yet time, in English and in other languages is, for the most part, not conceptualized and talked about on its own terms. Very little of our understanding of time is purely temporal. Most of our understanding of time is a metaphorical version of our understanding of motion in space" (Lakoff and Johnson 1999, 139).

One of the first empirical studies which support this claim has been performed by Lera Boroditsky (2000). So, even when "stop" is meant in terms of an end of TIME, it eventually refers back to SPACE.

I have furthermore shown in section 4.5.3 that LOVE, among others, is conceptualized both in terms of WAR and in terms of a GAME. In addition, I have shown, in section 4.5.5, that Bogost described *The Marriage* as being "about the push and pull of maintaining a relationship" (Bogost 2011, 14). Furthermore, one can clearly see this statement as an instance of Gadamer's "to-and-fro movement," as is characteristic for play. I furthermore suggested that the push and pull can be seen in the light of competition or agon, which suggests that even a relationship holds competitive elements.

Interestingly, most interpretations of games as metaphoric or as exhibiting procedural rhetoric come down to STRUGGLE/WAR and SPACE, which, as I have demonstrated in Chapter 3, is essential to play concepts , and, by extension, also essential for most computer games. Hence, one has to question if there is really some sort of procedural rhetoric in place here, or simply mundane play. In other words, I doubt that Bogost's own claim to argue on a microscopic level and not on the macroscopic level of play rhetorics as represented by Sutton-Smith holds. The centrality of STRUGGLE/WAR and SPACE metaphors in Murray and Bogost seems to suggest that they are also argue on the macroscopic level of play as well. My findings from Chapter 3 suggest that play, when being conceptualized as agonistic, is based on an idealtypical model of a duel which is essentially spatial. This is particularly interesting since computer games, as I will now demonstrate, have been termed genuinely spatial media.

5.3 Computer games as spatial media

If we want to understand how metaphoricity in games works, we have to study their spatial structures. This is not only suggested by previous metaphorical analysis of games, but also by the analysis of interpretations of games by others. As we have seen, Murray characterizes computer games as procedural, participatory, encyclopedic and *spatial* (Murray 1997, 71–90). The German media philosopher Stephan Günzel (2012, 85) holds that the original conceptualization of games as decidedly spatial media goes back to Mark J.P. Wolf (1997), who provides a taxonomy of computer games based on their visually represented space from a perspective of film studies. Wolf distinguishes between film and computer game:

> "Unlike the film-viewer who is led (visually) through the film's diegetic world by the film's characters, the video game player has a stake in the navigation of space, as knowledge of the video game's space is often crucial to a good performance" (Wolf 1997, 11).

He anticipates Lev Manovich's famous notion of computer games as navigable spaces which thus exhibit one characteristic of *The Language of New Media* (Manovich 2002, 244–285). Manovich refers to the medial characteristics of computer games – the visual presentation and representation and the ergodicity (expressed through the navigability). Wolf's self-descriptive taxonomy of computer game spaces distinguishes between games with 1. no visual space; all text based (e.g. *Zork* (T. Anderson et al. 1979)); 2. one screen, contained (e.g. *Pong* (Atari 1972)); 3. one screen, contained, with wraparound (e.g. *Pac-Man*), 4. scrolling on one axis (e.g. *Street Racer* (Atari 1977)), 5. scrolling on two axes (e.g. *SimCity* (Maxis Software and Wright 1989)), 6. adjacent spaces displayed one at a time (e.g. *Adventure* (Atari and Robinett 1979)), 7. layers of independently moving planes (e.g. *Super Mario Bros.*), 8. spaces allowing z-axis movement out of frame (e.g. *Night Driver* (Micronetics 1980)), 9. multiple non-adjacent spaces displayed on one screen simultaneously (e.g. *Spy vs. Spy* (First Star Software 1984)), and 10. interactive three dimensional environment (e.g. *The Elder Scrolls V: Skyrim*).

Comparing the quite disparate games *Myst* and *Doom* (id Software 1993) Manovich observes that:

"the two games are similar in one key respect. Both are spatial journeys. The
navigation though 3D space is an essential, if not the key component, of the gameplay.
Doom and *Myst* present the user with a space to be traversed, to be mapped out by
moving through it. Both begin by dropping the player somewhere in this space"
(Manovich 2002, 245).

Aarseth already conceptualizes cybertexts, and therefore computer games, as spatial when
explaining the notion of ergodic literature. According to Aarseth, the notion 'ergodic' "derives
from the Greek words *ergon* and *hodos*, meaning 'work' and 'path'" (Aarseth 1997, 1). He
elaborates further: "during the cybertextual process, the user will have effectuated a semiotic
sequence, and this selective *movement* is a *work* of physical construction" (Aarseth 1997, 1;
italics are mine). More precisely, it seems that he conceptualizes the process, and perhaps also
the experience, of playing a game in terms of a movement in space, which is not manageable
without making an effort. This refers on the one hand to the player who has to perform this
famous "non-trivial effort"[61] (Aarseth 1997, 1) and thus invest something like physical force
and some sort of mental engagement. On the other hand, it also refers to the materiality of
the game, against which the player is required to unfold the game against (see Leino 2010). As
such, playing a computer game is always already conceptualized as a spatial activity. Given that
even text adventures such as *Zork* are contained in Aarseth's notion of a cybertext, this means
that Aarseth's reference to the spatiality of a game is not necessarily derived from its visuals,
as opposed to Wolf. For Aarseth, the spatiality of games is some sort of logical structure.
Observing the existence of "spacio-dynamic metaphors of narrative theory," he distinguishes
cybertexts from ordinary narrative literature in that the spatial structure of the latter is
metaphoric whereas the structure of the former is logical – and even topo*logical* (Aarseth 1997,
4). That is, in ergodic literature, spatial logic is part of the materiality, and an understanding of
it is a requirement for the user to unfold the cybertext. Aarseth writes:

"The cybertext reader *is* a player, a gambler; the cybertext *is* a game-world or
world-game; it *is* possible to explore, get lost, and discover secret paths in these texts,

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[61] Particularly in *Cybertext,* this effort is non-trivial, since cybertexts require the user to perform more
effort than simply turning a page in a book in order to gain access to the „text" of the cybertext.
Whereas the reader of a mundane book can access each page at will, the cybertext requires the reader
to perform a task whose success depends on the reader's performance in order to access more of the
cybertext at hand.

not metaphorically, but through the topological structures of the textual machinery"
(Aarseth 1997, 4).

Aarseth later also introduces the notion of the "traversal function," described as "the
mechanism by which scriptons are revealed or generated from textons and presented to the
user of the text" (Aarseth 1997, 62). In other words, this mechanism determines how a
gameplay session and the text of a game unfold; it also decides about the success of the player.
In his article "Allegories of Space" Aarseth explicitly holds that:

> "…the defining element in computer games is spatiality. Computer games are
> essentially concerned with spatial representation and negotiation, and therefore a
> classification of computer games can be based on how they represent – or, perhaps,
> implement – space" (Aarseth 2001a, 154).

This is further represented in Elverdam and Aarseth's typology of games (2007), which features
categories of struggle and space.

With regard to the complexity of the object called "computer game," Aarseth and Calleja
suggest that it contains many more things than games, and consider games as happening in
virtual environments – wherein the notion of "environment" clearly has a spatial connotation as
well (Aarseth and Calleja 2009; Calleja 2011).

Thus, we can see that spatiality is considered by many authors to be a characteristic element of
games. In the following, I will shed a little more light on the labyrinth and some other spatial
structures in games.

5.3.1 Computer games as labyrinths, mazes, tracks, gardens, arenas and quest games

In Aarseth's *Cybertext,* the notion of the labyrinth is crucial as a model for understanding the
peculiarity of games, since it exemplifies the two essential elements of ergodic literature – the
path and the effort to follow this path. Referring to Penelope Reed Doob (1990), Aarseth
remarks that the two different forms of labyrinths – the unicursal and the multicursal – were
originally given the same name, labyrinth, which is "signifying a complex design, artistic order
and chaos (depending on point of view), inextricability, and the difficult progress from
confusion to perception" (Aarseth 1997, 6). In particular, the assumed difficulty of

progressing through a labyrinth refers to Aarseth's notion of the ergodic. From the Renaissance on, the idea of the labyrinth was reduced to multicursal labyrinths, but Aarseth argues for the reintroduction of the original two senses. He holds against its use in literary theory "that the concept of labyrinth […] might have more analytic accuracy in connection with texts that function as game-worlds [and thus games] or labyrinths in a literal sense" than it has with describing literature (Aarseth 1997, 6). Unicursal labyrinths are characterized by Aarseth as only having "one path, winding and turning, usually toward a center," and furthermore as a "difficult, winding, but potentially rewarding linear process" (Aarseth 1997, 6, 7). In multicursal labyrinths, "the maze wanderer faces a series of critical choices, or bivia"; furthermore, they are a "spatial, artistically complex, and confusing artifact" (Aarseth 1997, 6, 7).

Aarseth's distinction between a metaphorical spacio-dynamic structure as it occurs in narrative literature and the topological spacio-dynamic structure of games is similar to the distinction between fictional worlds and game worlds he makes when saying "fictional worlds depend on the imagination, whereas game worlds have objective existence, even if they only exist via computing machinery" (Aarseth 2012, 131). As such, the topological spacio-dynamic structure of games has a material existence, whereas the spacio-dynamic structure of narrative is imaginative, and, as such, a matter of thought. In other words, labyrinths in narrative are a matter of imagination and labyrinths in games are real.

Apart from Aarseth, others have referred to the labyrinth (often understood as the unicursal labyrinth) and the maze (often understood as the multicursal labyrinth) as spatial or architectural structures. For instance, Michael Nitsche distinguishes between different "spatial structures in game spaces," such as tracks and rails, labyrinths and mazes, and arenas (Nitsche 2008, 171–189). Tracks and rails,in other words, are forms of unicursal labyrinths. They are featured, for instance, in racing games such as *Gran Turismo 5* (Polyphony Digital and Yamauchi 2010, 5), and "rail shooters" which "move or guide the player along invisible tracks that allow little divergence from a given path" (Nitsche 2008, 174–175). Thus, even first- or third-person shooter games, which pretend to provide an open world but actually just guide the player character along a pre-defined path, belong to this category. Nitsche distinguishes labyrinths from tracks and rails, saying that "the labyrinth usually puts its restriction on display" (Nitsche 2008, 176). Yet, I would hold that *Super Mario Bros.* can simultaneously be

understood as an instance of a unicursal labyrinth as well as an example of a track and rail structure. Nitsche defines the maze, following Umberto Eco, as "offer[ing] branching and multicursal forms" (Nitsche 2008, 177). As such the game space of, for instance, *Pac-Man* is a maze, whereas the game space in *Half-Life 2* (Valve 2004) is a track and hence a unicursal labyrinth.

Laurie N. Taylor proposes that certain games should be considered as gardens and sandboxes due to their more open and consequently less limiting spatial structures (Taylor 2006; also in Gazzard 2013, 165; Nitsche 2008, 172). Similarly, Nitsche suggests the arena as an additional spatial structure, describing arenas, in contrast to labyrinths/mazes and tracks/rail,s as "largely open structures with one dominating demarcation line: the surrounding enclosement"; within that space, arenas "provide relatively free movement" (Nitsche 2008, 183). Examples for arenas are the "football pitch, a boxing ring, or the coliseum;" due to their spatial characteristics, they are considered to "support[…] events such as battles, dances, or speeches" (Nitsche 2008, 183).

For Nitsche, game spaces allow for a "mixture of various forms" of spatial structures (Nitsche 2008, 187). *The Elder Scrolls V: Skyrim* (Bethesda Game Studios 2011)*,* for example, features a large and complex environment, offering unicursal labyrinths, multicursal labyrinths as well as arena-like spaces. To Nitsche, it is particularly important to point out that certain architectural structures, foster a certain kind of movement in a game environment, and thus influence the playing of a game (Nitsche 2008, 187–189). In his "Allegories of Space," Aarseth describes how competitive multiplayer games, such as the real-time strategy game *Myth* (Bungie 1997) exhibit symmetric game spaces in order to allow for a fair competition, whereas single-player games are more likely to feature asymmetric spaces (Aarseth 2001a, 168). A similar observation is made by Nitsche for arenas (Nitsche 2008, 186).

In a later paper entitled "From Hunt the Wumpus to EverQuest: Introduction to Quest Theory" (2005b), Aarseth analyzes spatial structure and links it to the quest structure of so-called quest games, based on the thesis that the spatial structure as well as the quest structure of such games provide the "bones for the game-content" and thus for any narrative involved in the games in question (Aarseth 2005b, 496). Building upon research by Tronstad (2001) and Tosca (2003), Aarseth provides two definitions for quest games, the first of which is that a quest game is understood as:

> "a game with a concrete and attainable goal, which supercedes performance or the accumulation of points. Such goals can be nested (hierarchic), concurrent, or serial, or a combination of the above" (Aarseth 2005b, 497).

This definition puts a sufficiently concrete goal, as well as the probability of reaching it, in focus. Offering a much shorter second definition, Aarseth writes that a quest game is:

> "a game which depends on mere movement from position A to position B" (Aarseth 2005b, 497).

Focusing particularly on games which feature a narrative and, as such, identifiable game characters, a certain story line, dialogue and a world, Aarseth admits the latter definition is not "descriptively exhaustive" for all games of this kind. Nonetheless, it is, according to Aarseth, "the necessity of moving from A to B" which most quest games have in common, and, more importantly, this "A to B" structure is what "narrative games" share with quest games (Aarseth 2005b, 497). This also includes games which Juul would have described as games of emergence, which are characterized as having a "small number of rules that combine and yield large numbers of game variations" (Juul 2002, 324). Such games are represented by card, board, action and strategy games, and they tend to be rather replayable as opposed to games exhibiting a simple A to B structure, which Juul at the time called games of progression (Juul 2002, 324). One could criticize Juul's use of terms here, and I have, in fact, done so in Chapter 3; but, for the sake of my argument, I shall ignore this discussion for now. Aarseth names "chess, *Tetris*, football, multiplayer *Starcraft*, or quest games such as *Morrowind* and *EverQuest*" as examples games ecxcluded from the definition of quest games (Aarseth 2005b, 497). Perhaps the latter two are excluded because they rather imply an A-to-B-to-A-to-B-to-A-etc. movement, and thereby exhibit Gadamer's to-and-fro-movement of play instead of the linear movement of the quest. Aarseth's exclusion might be useful in order to argue for a strong definition and a typology of quest games; yet, for my argument, it is sufficient to see that games are considered to be essentially spatial. Aarseth later suggests five essential spatial structures for games with narrative – there are linear corridors (*Super Mario Bros.*, *Doom*), multicursal labyrinths (*Pac-Man*) or hub-shaped labyrinths (*Far Cry 2* (Ubisoft Montreal 2008)), open worlds (*The Elder Scrolls: Skyrim*, *Grand Theft Auto IV*), and single rooms (*The Marriage*, *Façade* (Mateas and Stern 2005)) (Aarseth 2012, 131). Aarseth himself suggests that these spatial structures can be combined in certain games (Aarseth 2012, 131).

We have seen in Chapter 2 that, according to contemporary cognitive linguistic metaphor theory as represented by Lakoff and Johnson (1999), our metaphoric conceptual system is based on our bodily existence in space, and that is why most metaphorical concepts are in some way spatial. Together with the spatiality of games as discussed in this section, it is time to connect the dots.

5.3.2 Connecting the spatiality of games with cognitive linguistic metaphor theory

For my aim of connecting the spatiality of games with metaphor theory, the quest game itself is not important to the degree of a detailed description of what a quest game is. Regarding the above-named spatial structures, I am more interested in the basic conceptualization of games as essentially spatial. My analysis of computer games which are commonly approached as metaphoric, in Chapter 4 and in the current chapter, has shown that the source domains in these metaphoric readings are usually spatial. This was particularly clear in the case of *The Marriage,* which, as I have argued, simulates only the spatial source domains of the love metaphors involved. The same can be said for Murray's interpretation of *Tetris,* which, as I have just shown, itself contains many spatial metaphors, and also for Bogost's interpretation of *Tax Invaders,* which primarily exhibits the spatiality of competition. I have demonstrated that ordinary computer games – that is, those which are not usually considered metaphoric – do contain spatial structures similar to those which are responsible for the metaphoricity of games that are considered metaphoric: in Chapter 4, for instance, I argued that a love relationship in *The Sims 3* is similar, in spatial terms, to one played out in *The Marriage.* Even when interpreted in terms of STRUGGLE/WAR, the struggle of a game often consists of negotiating limited spaces. Thus, it is reasonable to assume that most games which are somehow spatial, in that they feature a virtual environment, provide – through their spatiality – conditions which are similar to those that are at the basis of our metaphoric system according to Lakoff and Johnson (1999). I am thinking here of an American city, such as the one in *Grand Theft Auto IV*, a fantasy landscape which features mountains, rivers, lawns, small villages etc., such as the one in *The Elder Scrolls V: Skyrim*, an abstract playing field featuring a labyrinth, such as the one in *Pac-Man*, or even only a container, as in *The Marriage*. This can explain why both so-called metaphoric games and ordinary, supposedly non-metaphoric games such as *Tetris* can be interpreted in terms of metaphor. It seems self-explanatory that

games which simulate a world and particularly spaces – despite being sometimes more and sometimes less reductive – automatically simulate the spatial preconditions of metaphors according to the cognitive linguistic paradigm of metaphor theory. As such, it is more likely that most games can potentially be considered metaphoric in one way or another, and not only a select few which reside within the paradigm of procedural metaphor or games as art or the like.

In particular, "mimetic games, that is, games that represent events, beings and worlds in a way that makes it possible for these elements to be recognized independently of the game" (Aarseth 2005a) such as *The Elder Scrolls V: Skyrim* or *The Sims 3,* seem to suit this idea. However, as we have seen, even semiotically abstract games feature spaces which can be understood as exhibiting the spatial basis of metaphor, as is the case in *The Marriage.*

For example, all game spaces which allow the movement a game entity from A to B provide the spatial basis for the JOURNEY element of the LIFE IS A JOURNEY metaphor. These games provide the source domain for the respective metaphors. Lakoff and Johnson suggest that the LIFE IS A JOURNEY metaphor is based on the source-path-goal structure which is one of the most essential structures according to which we think.

As I have demonstrated in Chapter 2, the source-path-goal schema, the container schema and the EVENT STRUCTURE metaphor are essential basic structures of human thought which are derived from our bodily situatedness in space (see Lakoff and Johnson 1999). The source-path-goal schema and the EVENT STRUCTURE metaphor are more basic in thought than, for instance, any JOURNEY metaphor. In other words, the frequent occurrence of all kinds of JOURNEY metaphors (e.g. LOVE IS A JOURNEY, LIFE IS A JOURNEY, WAR IS A JOURNEY, FOOTBALL IS A JOURNEY) is, for Lakoff and Johnson, reason to assume that a basic underlying structure of human thought is the source-path-goal schema.

In his Master's thesis, Roelf Kromhout analyzed the interplay of narrative structures and gameplay structures along the lines of the source-path-goal schema. As a starting point, Kromhout takes the QUEST IS A JOURNEY metaphor and the A STORY IS A JOURNEY metaphor and states an overlap in terms of structure between the two metaphors (2010, 4). Kromhout sees here the chance to reconcile what he calls the ludologist and the narratologist positions (see e.g. Frasca 2003c) in computer games, in that the quest structure of the game aligns with the structure of the narrative it is accompanied by. Yet, he thereby actually just repeats

Aarseth's observation that quest games and narrative games overlap in that sort of structure (Aarseth 2005b, 497). Specifically, Kromhout is investigating whether the "SPG [source-path-goal] schema's prominence in structuring STORY, JOURNEY and QUEST levels can be found in new media no less than in 'old' ones" (2010, 5). He thus sets out to "investigate the existence of the source-path-goal schema in three different video games" (2010, 4), taking as his examples *Half-Life 2* (Valve 2004), *Grim Fandango* (Schafer and Lucas Arts 1998), and *Heavy Rain* (Quantic Dream 2010). Kromhout identifies *Half-Life 2* as being less focused on narrative than the point-and-click adventure *Grim Fandango* and the interactive movie *Heavy Rain*. Being more of a kinaesthetic game (Karhulahti 2013), whose focus lies rather on pressing in-game events, "everything in *Half-Life 2* is focused on moving literally forwards and little is gained from trying to metaphorically interpret one domain in terms of the other" (Kromhout 2010, 46). Kromhout sees little sense in relating narrative structured by the STORY IS A JOURNEY metaphor with the QUEST IS A JOURNEY metaphor in the game's spatial structure as the latter. As opposed to *Grim Fandango* and *Heavy Rain,* which feature little navigational freedom for the player, *Half-Life 2* allows the player to move more or less freely within a three-dimensional largely unicursal and partly multicursal labyrinth (see Aarseth 2012, 132). As such, one can hold again that each game which features a simulated and navigable environment does feature the preconditions of metaphoric understanding. Therefore, I could show in Chapter 4 that the game *Passage* features this JOURNEY element in its environmen,t and this is why it is possible to see it as a metaphor for the human condition or existence, which embodies among others topics, LOVE and LIFE/DEATH.

Frasca also refers to spatial metaphors in the tradition of Lakoff and Johnson when analyzing ideologically themed, physical ball-in-a-maze games as examples for what he calls play rhetoric (see section 1.4.2). As I explained in the introductory chapter, Frasca criticizes the idea that games with an identical structures can carry meaning, since they allow for "two opposite ideologies" and both can be played without a theme (Frasca 2007, 98). He holds that the games can still carry meaning, in that they exemplify central metaphors of Western culture (Frasca 2007, 99). Frasca emphasizes the fact that the labyrinthine structure of these games exemplifies time metaphors such as "TIME IS LINEAR," "TIME IS A MOVING OBJECT" and "FORESEEABLE FUTURE EVENTS ARE UP (AND AHEAD)" (Frasca 2007, 99). I suggested in Chapter 1 that what Frasca does not see, but what becomes apparent particularly at this stage of the thesis, is that the pure gameworld structure does not carry any of these metaphors. On

the contrary, the gameworld provides the same spatial preconditions which were necessary in the real world for these metaphors to occur in human thought according to Lakoff and Johnson's theory (Johnson 1987; Lakoff and Johnson 1999).

For now, I have emphasized the spatiality and the struggle element as always already exhibited in many games independently from any interpretation, and therefore I claim that games are not metaphoric but contain the spatial precondition for metaphoricity as they are themselves spatial. Apart from the concepts of STRUGGLE/WAR and SPACE as present particularly in Bogost's and Murray's interpretation of *Tax Invaders* and *Tetris,* one can furthermore observe that many games which are interpreted as metaphorical are interpreted in some sort of existential topic, as I will show in the following. This reliance on existentialism is not surprising, both due to the fact that experiences of SPACE and AGON can themselves be considered existential, as well as the fact that these experiences structure many concepts of thought.

5.4 Games as existential objects

There is striking evidence that games do generally contain, or, even better, perform some sort of existentialism. In other words, games, and also play as such, have often been addressed as exhibiting some sort of existentialism.

This can be argued from at least two perspectives. The first perspective derives directly from the game studies discourse, in which games, when interpreted from the perspective of metaphor or the more general perspective of procedural rhetoric (or games with an agenda or meaning) are often interpreted as providing, or claimed to provide, some sort of deeper insight into the human condition or existential topics.

The second perspective is derived from philosophy, and specifically play philosophy. Among those are representatives from the theory of play and games which I have already introduced in Chapter 3. In the following, I will elaborate on the two perspectives and draw a striking contrast between the wish to make games with an existential topic or to interpret games as existential (as represented by perspective one) and a general assumption that games and play always already exhibit some sort of existentialism (as suggested by perspective two).

The problem which is at stake is the following. Authors who argue from the point of view of procedural rhetoric and artgames give the impression that a particular subset of game objects can be called existential, whereas others cannot. In addition, this perspective implies that existentialism or the human condition is implementable into a game. Conversely, the second perspective suggests that play and games are always already existential. If the latter perspective turns out to be true, one would be dealing with a tautology. In this case, one would need to revise the basic assumptions of procedural rhetoric and incorporate the idea that games always already exhibit some sort of existentialism or the human condition. Therefore, interpretations which hold that it is exclusively artgames or persuasive games that are predestined to exhibiting existentialism cannot hold.

Yet, in the following, I will introduce the two perspectives and afterwards draw conclusions on how to deal with this problem.

5.4.1 Existential interpretations of games in the discourse of game studies

Overviewing the game studies discourse, and, particularly, interpretations of games as metaphoric, it is striking to see that most interpretations of games refer to some kind of existential topic or to the human condition as such.

Doris Rusch refers to the human condition as a subject to be explored through games from a game design perspective. She derives the concept of the human condition from Hannah Arendt (1998), and thus from the Heideggerian tradition of existential philosophy. Quoting Arendt, Rusch writes "I understand the human condition as encompassing all of human experience as well as the conditions 'under which life on earth has been given to man'" (Rusch 2009).

Linking her interest with procedural rhetoric, she suggests procedurality as a "way in which games can enhance our understanding of the human condition […] by representing the processes inherent to it" (Rusch 2009). As such, Rusch assumes that the human condition can be explored through games which are designed in a particular way. This is also the framing thought in which she analyzes *The Marriage*, considering it a practical example how an understanding of an aspect of the human condition, in this case love, can be derived through simulation. Rusch takes the designer's point of view, and that is why she would certainly hold

that games which are designed in a particular way address the human condition better than others. However, by quoting Raph Koster, Rusch also acknowledges that games can always already contain some sort of human condition.

Koster holds:

> "There is a crucial difference between games portraying the human condition and the human condition merely existing within games. The latter is interesting in an academic sense, but it is unsurprising. The human condition manifests anywhere" (Koster in Rusch 2009).

In this quote, Koster clearly recognizes the dilemma which I am suggesting is worth analyzing in this chapter. He says, on the one hand, that games always already contain some sort of human condition, and holds it to be a trivial element to analyze. Being a game designer himself, he obviously wants to produce games which "portray" the human condition. However, this wish for portrayal holds the same problem as Bogost's procedural rhetoric, in that it places too much emphasis on games as a form of showing, and thus at the indexicality of games, which, in turn, emphasizes the representational character of games – and thus the third-person or audience point of view. The question which arises from this problem is: is it at all possible to design for the human condition when games turn out to be always already existential? Or is it rather the case that all game forms which are used already contain this existentialism? If this latter option turns out to be true, the agency of the designer to specifically implement an existentialism in games would be seriously in question.

Jason Rohrer, another game designer often referred to in the metaphor discourse of game studies, also tried to tackle the human condition. Arguably the game most often referred to in the games as art and games as metaphor discourse is Rohrer's *Passage* (Rohrer 2007). I already introduced the game in the end of Chapter 4 in suggesting a de-metaphorization of metaphors attached to games. In that chapter, which was intended to shed light on what I have termed the metaphor-simulation dilemma, I mentioned that Rohrer calls his game *Passage* a "very abstract metaphor[…]" (Rohrer in Dahlen 2010). However, I held back the continuation of the sentence: Rohrer actually names *Passage* a "very abstract metaphor[…] for the human condition" (Rohrer in Dahlen 2010). This exemplifies that, in the game studies discourse, that games which are called metaphoric are often referred to as metaphors for the human condition or for some sort of existentialism.

As opposed to Koster and Rusch, Rohrer is more pessimistic, and doubts that it is possible "to make games about the human condition," since in games players can interfere with the intended message or meaning of games by just playing around with the game object not caring what the game intends them to do (Rohrer in Dahlen 2010). In this vein, Olli Leino argues for a distinction between a) playing a game (gameplay), and b) playing *with* a game (Leino 2010, 133). Playing with a game thereby means experimenting with the possibilities of action a game provides. Yet, these possibilities can entirely separate the player's intentions from the game designer's intentions, in that the player might not fulfill the intended text. This is the basis of Rohrer's skepticism, and the reason why he thinks "we're not going to be able to make games about the human condition, essentially"(Rohrer in Dahlen 2010). One should add that Rohrer is convinced that *Passage* is "as far as we're going to get" in making games about the human condition (Rohrer in Dahlen 2010). In this regard, Rohrer is more pessimistic than Koster regarding the possibility of the portrayal of the human condition in games. Weakening the significance of the human condition as always already manifest in games, Koster seems to be in favor of the idea that games can portray the human condition. Contrary to Koster's position, Rohrer does not believe that the human condition can be better portrayed, if at all, than in his game *Passage*.

Yet, again, both Rohrer and Koster seem to be arguing from the representational, textual side of a game. Instead of a game *being* what it is and thereby featuring the human condition or some sort of existentialism, they want a game to *show* that human condition or existentialism, and therefore conceptualize the game as an indexical sign. It is clearly visible that we are dealing here with the central problem that has emerged every now and then, and that seems to have developed into a leitmotif throughout this thesis, which we initially introduced through Huizinga's distinction of play as a contest for something and play as a representation (see Chapter 3). I will explore this thought further in the next section when showing that theorists of play and games also consider play to be existential. For now, it shall be sufficient to further demonstrate how the motif of the human condition or existentialism frequently emerges in the game studies discourse.

For this, it might be useful to briefly anticipate what can be understood as existential or as the human condition. Eugen Fink, the philosopher and Heidegger-disciple whom I have already referred to in section 3.3, considers work, struggle, love and death, among others, as

phenomena that are as existential as play (Fink 1968, 22). Suffice it to say that the human condition, or whatever possesses an existential quality, consists of all those elements which structure each being in the world and are thus assumed to be the common ground for each human being. Therefore, we are dealing with very general categories when speaking of work, struggle, love, and death, whose interpretation and performance clearly differs from culture to culture. Nevertheless, these categories or phenomena exist in most cultures. We have seen in Kövecses' list that LIFE, DEATH, EMOTIONS and RELATIONSHIPS belong to the most common target domains in metaphoric thought (see Chapter 2). Hence, it comes as no surprise that work, struggle, love, death, and play are basic phenomena or categories of existence.

One can now observe that game designers (for instance Rohrer, Rod Humble and Koster), as well as game analysts, who often also work as game designers (such as Rusch, Begy, Bogost, Frasca, Juul and Crawford, to name a few) on the one hand pursue the shared wish to design games that address the human condition and its inherent existential concerns in order to make games "more meaningful" (Rusch 2009). On the other hand, they also analyze games in this regard. One can observe that many interpretations of computer games from the perspective of procedural rhetoric or metaphor refer to existential topics in their interpretations.

Existential topics in whose terms games are interpreted include, among others, love (see for instance *The Marriage* as analyzed by Juul 2007; see Rusch 2009; Begy 2010; 2011; Bogost 2011; and designed by Humble 2006), (im)mortality, regret, failure, work, struggle etc. (see for instance *Vanitasspillet* designed and analyzed by Madsen and Degn Johansson 2002; *John Kerry Tax Invader*s as analyzed by Bogost 2007a; Nelson 2008; *Tipping Point* as designed and analyzed by Begy 2010; 2011; GAMBIT Game Lab 2009).

Bogost, for example, calls Jonathan Blow's *Braid* (2008) an "allegorical exploration of the themes of time and regret" and *Passage* "an abstract memento mori" (Bogost 2011, 12). Adding that the representative artgames Bogost refers to (see above) "say something about how an experience of the world works, how it feels to experience or to be subjected to some sort of situation: marriage, mortality, regret, confusion, and so forth" (Bogost 2011, 14), Bogost clearly moves within the field of existential topics similar to the ones suggested by Fink. The same goes for Madsen and Degn Johansson's design and analysis of Madsen's own game *Vanitasspillet* (Madsen 2001). Positioning the game within the field of game rhetoric, they describe the game as "a small 3D game that is intended to communicate the *vanitas* theme"

(Madsen and Degn Johansson 2002, 82). Unsurprisingly, they frame their approach within the games-as-art discourse (see Chapter 4), stating that "computer games do have potentials as a medium of artistic expression" (Madsen and Degn Johansson 2002, 74). The vanitas theme, together with associated notions of carpe diem (make use of the day) and memento mori (beware of your death), was popular in the arts in the 16th and 17th century as a reflection of mortality as the condition of possibility of being human. This thought is also central in Heidegger's *Being and Time,* which provides an ontology of Being and of being human on the background of human temporality, which, after all, is determined by human mortality, and which conceptualizes death as the final possibility to be (Heidegger 2008).

As has already been seen and discussed, Murray interprets *Tetris* as a metaphor for work conditions in American white-collar employment. Work is named as an existential topic by Fink. The arbitrariness of Murray's interpretation becomes clear when thinking about the history of the computer and computer games and their intertwinement with discourses of experimental psychology and work sciences (see Pias 2000). In this regard, it is easy to make a connection between blue-collar employment at the assembly line, which stands iconically for the automation of production processes in the industrial age, and the insight that early computers were mechanical machines similar to assembly lines, in that they performed a form of batch processing. Due to their limited processing power, they could only perform a sequence of calculations, but none of them simultaneously. This is what the player does when playing *Tetris.*

This means that there is a clear connection between the batch processing of white-collar employment described by Murray and the blue-collar batch processing of the assembly line. Yet, one can also say that Murray's interpretation of the game as some sort of work, no matter if blue-collar or white-collar, is in fact not arbitrary, since work as such is an existential category. Bogost's comment on Murray's *Tetris* interpretation, despite deriving it originally from a so-called "boss key feature"[62] in some particular version of *Tetris*, supports this idea of an implied existentialism in her interpretation when describing the latter as an "alignment of the game with the burdens of life" (Bogost 2006a, 101). Also interesting with regard to the

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[62] The boss key allows players who play the game at work to strike a specific key (the boss key) which makes the normal computer desktop appear instantly (see Bogost 2006a, 101).

adequacy of a game interpretation in the textual sense, but also with regard to its existential content, is Crawford's "reading" of *Pac-Man*, which argues that the game:

> "captures so well […] the frantic nature of our working lives. We rush about, collecting some meaningless dots (carrying out our daily tasks), while bad guys chase us, just waiting to trip us up on some minor mistake. It's frantic, it's mechanical, it's relentless – it's just like our daily lives. There were plenty of variations on the Pac-Man design, but none of them got the metaphor to hit home so closely" (Crawford 2003, 30–31).

Firstly, this quote provides more evidence that games are strikingly often interpreted as exhibiting existential topics such as work. Secondly, this quote shows that we also conceptualize work in terms of failure and success – this becomes evident when Crawford speaks of "bad guys chasing us, just waiting to trip us up on some minor mistake" and calls it "relentless" (Crawford 2003, 30–31). Thirdly, comparing this to "our daily lives," Crawford clearly makes an allusion to the human condition, or to existentialism. And, fourthly, similarly to Murray, Crawford interprets the game in terms of work. What is interesting in this interpretation is, again, the agon component present in the conceptualization of work as a relentless chase aiming at us making mistakes. Obviously, the agon component is also present in the game, since it is commonly understood as a competition between Pac-Man and the ghosts, or between the player and the game.

Mark Nelson compiled a list of games with a message, called "Newsgame index" (Nelson 2008; discontinued after 2008), in which he classifies different newsgames according to different characteristics, of which the type of commentary, type of gameplay, and subject are certainly the most relevant ones for my purposes. This list contains existential categories, too. For now, I will focus only on the category "type of commentary," which is subdivided into:

1. direct criticism
2. electioneering
3. memorial
4. pointing out tradeoffs
5. rhetoric of failure
6. satire

It should be added that this index is far from a systematic framework applicable for the classification of different newsgames. This is, among others, demonstrated by the fact that some games fulfill two or more out of the six subcategories of the "type of commentary." For instance, *Kabul Kaboom*! (Frasca 2001b) is placed in the subcategory of "direct criticism" as well as "rhetoric of failure," which demonstrates an inconsistency in the choice of categories. In addition, the categories are not defined any further, but are instead intended to be self-explanatory. Apart from that, Nelson assumes the term "newsgame" to be known, and does not deliver a proper definition. Bogost et al. define "newsgame" as "a term that names a broad body of work produced at the intersection of videogames and journalism" (Bogost, Ferrari, and Schweizer 2010, 6). Very roughly, one can describe newsgames as games exhibiting "procedural rhetoric" (Bogost, Ferrari, and Schweizer 2010, 6) whose function is to contribute to journalism "both as an independent medium for news and as a supplement to traditional forms of coverage" (Bogost, Ferrari, and Schweizer 2010, 5), and whose "creators […] typically strive to release such a game while the story it covers is still relevant" (Bogost, Ferrari, and Schweizer 2010, 6–7). Without getting into too much detail about newsgames, I want to point out that Nelson's index remarkably classifies a number of iconic games with a message, or games exhibiting procedural rhetoric, as exhibiting the rhetoric of failure – among these, we can list the aforementioned *Kabul Kaboom!*, as well as *Darfur is Dying* (Susana Ruiz 2006) and *September 12* (Frasca 2003b). In the case of *Kabul Kaboom!*, this rhetoric of failure is exemplified again through a textual means in the instructions of the game where it says explicitly "Remember kids, you can't win this game, just lose" (Frasca 2001b). Apart from addressing existential conflicts such as war and the war on terror, these games have in common the fact that they all do not provide something known as winning conditions (see e.g. Juul 2005, loc. 239). As such, *Kabul Kaboom!* merely consists of keeping the game at play as long as possible, by avoiding being hit by bombs falling from the top to the bottom of the screen, where the player-controlled avatar can be moved to the left and the right to avoid the bombs. *September 12,* on the other hand, provides no end condition whatsoever. In its instructions, it states, "This is not a game. You can't win and you can't lose. This is a simulation. It has no ending it has already begun […]" (Frasca 2003b). This oft-discussed game allows the player to launch missiles at a stylized two dimensional Afghan-looking city populated by two kinds of people, civilians and militant extremists (reminiscent of Taliban) wearing weapons. Whenever the player launches a missile, she might destroy buildings and kill

civilians and/or militant extremists. Killing civilians makes other mourning civilians turn into militant extremists. However, the game does not provide any score or other means to measure any sort of player success; at the same time, it also does not evaluate any action as failure. Interestingly, gameplay-wise, *Kabul Kaboom!* is not different from *Tetris* or *Pac-Man,* which are both, finally, about not losing the game by avoiding detrimental game states. In the case of *Tetris,* this means avoiding a collision between the tetrominos and the top game space limit, and, in the case of *Pac-Man,* this means avoiding a collision between Pac-Man and any ghost in the maze before Pac-Man has travelled to each spot in the maze. *Kabul Kaboom!*'s rhetoric of failure is the same as in *Tetris* and *Pac-Man,* and consists in avoiding the termination of the game at play despite the probability that it will end eventually. In this light, even *The Marriage* exhibits a rhetoric of failure, in that the game can end when the player does not manage to make the two squares collide every now and then in order to keep the game/the marriage at play, resulting in the squares growing too small or too transparent.

The rhetoric of failure is a term also used by Bogost (2007a, 84–97). *September 12* clearly plays with essential gameplay conventions by leaving out any detrimental state in the game which might end it abruptly. In this regard, it is different from *Kabul Kaboom!*, *Tetris*, *Pac-Man*, and *The Marriage*. The absence of failure is particular to *September 12* as opposed to the aforementioned games. With this absence, the game subverts player expectation which derive from standard gameplay experiences with games such as *Tetris*, *Pac-Man* or other games which exhibit a gameplay condition.

The similarity between games allegedly exhibiting procedural rhetoric such as *Kabul Kaboom!* and *The Marriage*, and rather conventional games such as *Tetris* and *Pac-Man*, which, as Murray has shown, can also be interpreted as exhibiting some sort of existential meaning raises the question: why is this the case?

On the way to an answer, Ensslin's remarks are useful. Studying the language of gaming, she distinguishes between a) language which refers to the game world or the theme of a game, and b) language which "refer(s) metaphorically to gameplay itself rather than the game world" (Ensslin 2012, 75). Ensslin, thus, also operates with the distinction of the game object as such and the game object as depicting something or referring to something else, such as simulations or procedural rhetoric games – our leitmotif.

Concerning the language of gameplay, which she derives from the so called GameCorp (see section 1.6) of game players, Ensslin observes which terms players use when, rather than speaking about the gameworld, they employ a "meta-gaming language" (Ensslin 2012, 77) to speak about their gameplay experience. With regard to competitive games they play against other players, they clearly use terms from the domain of war, which is not surprising when we remember Chapter 3. Ensslin quotes phrases like, "they [other gamers] can't possibly be good enough to *beat* me" or "with the click of a button you can watch anything from your very first *victory* to your latest *defeat*…" (Ensslin 2012, 75). As such, in a competitive gameplay setting against other human players, players use notions from the semantic domain of WAR or STRUGGLE, as this is typical gameplay language. This thought has also been expressed by Ensslin:

> "That the language of gaming taps metaphorically into the semantic field of war is not entirely surprising because, most of the time, we do not play a game alone. Rather, we play *against* others: other players or indeed the computer itself" (Ensslin 2012, 76).

Following, Huizinga, this is, furthermore, not surprising, assuming – as I have shown in Chapter 3 – that the notion of play is always related to war or some primordial existential struggle.

What is interesting in Ensslin's brief analysis is that she also refers to the language of players during gameplay which refers to the gameworld, speaking with Aarseth (e.g. Aarseth 2003), or to the game's theme, to speak with Aki Järvinen (2007). Ensslin claims that the separateness of games from reality (she uses the notion of the "magic circle") fosters the use of metaphoric language because games create their own semantic realm. Hence, she argues that players who play an instance of the *Call of Duty* series (see e.g. Treyarch and Infinity Ward 2003) use language from the semantic domain of WAR, and players of games in the football simulation series *FIFA*, such as *FIFA 10* (Electronic Arts Canada 2009)*, use language from the domain of FOOTBALL (Ensslin 2012, 75). Recognizing the fact that it is difficult to distinguish between literal and figurative language, particularly in the case of war games, it is surprising that Ensslin, despite being a linguist, does not refer to the fact that the language of football in particular, and, as such, also the language of a simulation of football such as *FIFA 10,* consists to a large degree of WAR metaphors (see again Möring 2007). However, she also remarks, correctly, that the metaphoricity of the language applied depends on the point of view. From

the first-person POV, and, as such, the perspective of the player who is involved in the match, the war rhetoric in football is just the literal description of what goes on in football. There is no more economical way to speak about football than using its particular language, which consists to a significant degree of war metaphors. However, these metaphors are so conventional that Ensslin herself does not even note the metaphoric origin of football language in the domain of WAR or STRUGGLE. Instead, she considers the language to consist of "lexical items from the field of football" (Ensslin 2012, 75). From the third-person POV, this language can then only count as metaphoric, since, to an observer, a player is clearly not "really" shooting, either in *Call of Duty* or in *FIFA 10*. This is linguistically, and, certainly, also conceptually, the space in-between where the languages of a particular gameworld and the general language of gameplay overlap and where it becomes difficult to keep them apart. This exemplifies the essential paradox of metaphor, representation, and play as discussed in Chapter 3.

Let me get back to the original topic of this section, the interpretations of games in terms of existence: one can say that WAR and STRUGGLE, following Fink, are also clearly existential themes. They are not only related to particular games due to a war-like gameworld, but they are part of the general language of games and play. This, again, is not surprising when considered on the background of a strong emphasis on the agon element in games by several theorists (see e.g. Huizinga 1998; Caillois 2001; Sutton-Smith 1997; Gadamer 2004 etc.). Furthermore, from the more general perspective of existence or the human condition, it therefore makes sense that Ensslin observes that players in a game experienced as competitive use language that refers to the basics of existence. She writes: "success and failure lie close together and tend to be represented in terms of extreme in-game metaphors such as, quite literally, life and death" (Ensslin 2012, 95).

Ensslin hereby refers to a language featuring agonistic but also existential characteristics such as failure, success, life and death. Many popular children's games also feature existential vocabulary. The game Brännboll (German "Brennball") is very similar to baseball, except that it is commonly played with a larger ball and without a bat. Nevertheless, in Brännboll, hitting a player who is trying to reach a base can "burn" her, while any player who reaches the fourth base is "safe" (see Brännboll on Wikipedia).

From this perspective, one can frame Bogost's and Nelson's observations regarding the notion of "rhetoric of failure" in a different light. Bogost explicitly stated his intention to analyze games within the paradigm of procedural rhetoric from the angle of "the tradition of representation rather than the tradition of play" (Bogost 2007, 53). As I have demonstrated in Chapter 3, it is problematic to keep the concept of representation separated from play. Play depends on a primordial distinction between what is and what is not play. This distinction is equally necessary for the concept of representation to come into existence in the first place. The tradition of play that Bogost distances himself from is derived from Sutton-Smith's rhetorics of play, in that Sutton-Smith's approach "may prove useful in contextualizing procedural rhetorics among the values of play" (Bogost 2007a, 53). Bogost sees the difference between his own approach and Sutton-Smith's as being a distinction between a micro and a macro approach to game rhetoric. Commenting on the difference between *The Landlord's Game* and *Monopoly* as an example, to him Sutton-Smith's rhetorics of play are concerned with "the global, cultural roles for exploring themes like ownership and property" (Bogost 2007a, 53), whereas procedural rhetoric is concerned with "the local argument *The Landlord's Game* makes about taxation and property ownership" (Bogost 2007a, 53).

Interestingly, Bogost points out the paradox inherent in Huizinga's recognition that play is simultaneously serious and not-serious (Huizinga 1998, 6 quoted in Bogost 2007, 54–55; see also my extensive discussion in Chapter 3). Bogost uses this to motivate and introduce his discussion on serious games and to point out how they differ from his own project: persuasive games exhibiting procedural rhetoric. Being, in a broad sense, simulations, serious games are "created to support the existing and established interests of political, corporate, and social institutions" (Bogost 2007a, 57). Contrary to this, persuasive games exhibiting procedural rhetoric are supposed to be "an alternative whose promise lies in the possibility of using procedural rhetoric to support or challenge our understanding of the way things in the world do or should work" (Bogost 2007a, 59). In other words, serious games are merely conservative in supporting a status quo, while persuasive games are capable of being both conservative and subversive. Nevertheless, Bogost does not refer to Huizinga's fundamental distinction between play as a contest and play as representation. By claiming to only focus on the representational element, he believes himself to be able to avoid the macroscopic perspective through a focus on the microscopic perspective. This is, I believe, Bogost's essential misunderstanding, which becomes evident in his analysis of *Tax Invaders*. Firstly, as I

have shown, play and representation are inextricably intertwined (see Chapter 3). Hence, one cannot emphasize the one and ignore the other. Secondly, Bogost ignores the fact that elements from the macroscopic level are repeated on the microscopic level. Thus, if one were to consider the macroscopic perspective, and speak, in Sutton-Smith's terms, of a general rhetoric of play as power, this rhetoric is obviously repeated in all kinds of microscopic instances of any configuration of power. That said, *Tax Invaders* primarily works due to the macroscopic level of power or agon because, in the worst case, this is the only thing which is understood by playing the game. This is furthermore visible in the fact that all games which are explicitly interpreted as "metaphorical" provide a strong agonistic element no matter which other existential phenomenon is related to them (work, love etc.).

In the following, I will present a brief case study of *Vanitasspillet,* a game created by Helene Madsen (Madsen 2001), as well as an analysis of the game offered by Madsen and Troels Degn Johansson (2002).

5.4.2 The existential SPACE and STRUGGLE in *Vanitasspillet*

Madsen and Degn Johansson's approach to metaphor in games is one of the earlier ones. Their analysis is interesting because here, we have another case of game designers also approaching their game from an analytical perspective. This is particularly relevant to this chapter because the goal of their game was explicitly that of representing the human condition or existentialism with the means of metaphor.

As briefly mentioned in Chapter 1, Madsen and Degn Johansson investigate "non-narrative rhetorical meaning" in games, and focus on notions of satire and metaphor to account for this meaning (Madsen and Degn Johansson 2002). Unsurprisingly, they frame their approach within the games-as-art discourse (see Chapter 4), stating that they "assert[...] that computer games do have potentials as a medium of artistic expression" (Madsen and Degn Johansson 2002, 74). As I have shown in Chapter 4, this is a common reflex in game studies, since metaphors are often associated with artistic expression. Based on the assumption that metaphor can be used to represent a "common theme: the call for immortality and the mastery of computer games" (Madsen and Degn Johansson 2002, 73), Madsen created a game

prototype called the *Vanitasspillet* which is supposed to express the topic of *vanitas* through the means of metaphor.

Allow me to take a closer look at their project, focusing primarily on the metaphors involved. The game is described as "a small 3D game that is intended to communicate the *vanitas* theme" (Madsen and Degn Johansson 2002, 82). Referring to the history of the *vanitas* theme, with particular reference to the visual arts, such as Renaissance painting, Madsen and Degn Johansson claim that *Vanitaspillet* represents this theme, since it is supposed to be based on metaphors such as "LIFE IS A JOURNEY" and "DEATH IS LOSING A CONTEST AGAINST AN ADVERSARY" (Madsen and Degn Johansson 2002, 82). Madsen and Degn Johansson derive these metaphors from Lakoff and Turner's *More Than Cool Reason* (1989), which demonstrates that even metaphors in poetry rely on those conceptual metaphors found in everyday thought and language. Poets, they argue, are just better "in using these tools [metaphors]" (Lakoff and Turner 1989, xi).

As I have shown in Chapter 2, the "LIFE IS A JOURNEY" metaphor is essential for Western thought, and is therefore present in many sorts of thought and discourse. One could call this one of the most existential metaphors. As such, the argument must go the other way around. Metaphors are not part of poetry because they are special poetic tools; instead, one needs to say that, because they are an ubiquitous element of human thought, they also exist in poetry, as Lakoff and Johnson (2003) and Kövecses (2010) have argued (see also Chapter 2). This is why the "LIFE IS A JOURNEY" metaphor is expressed in Dante's *Divine Comedy,* where he writes:

> "In the middle of life's road,
>
> I found myself in a dark wood" (in Lakoff and Turner 1989, 9).

Since the authors do not provide this important background in their paper, it appears to be useful to briefly elaborate upon the other metaphor on which Madsen and Degn Johansson base their game: DEATH IS LOSING A CONTEST AGAINST AN ADVERSARY. This metaphor is often found in poetry. Lakoff and Turner spot this metaphor in "personifications of death" (Lakoff and Turner 1989, 16) as exemplified by the prototypical figure of the grim reaper, depicted as a skeleton with a scythe in Western cultural history (Wikipedia). They discover the respective metaphor in poems by John Donne, Alfred Tennyson and Samuel Johnson, among

others. Andrew Marvell's poem "To His Coy Mistress," for instance, "presents death as trying to catch us," which is exemplified by Marvell's lines:

"But, at my back I always hear

Time's winged chariot hurrying near" (Lakoff and Turner 1989, 17)[63].

What is particularly important is here that Lakoff and Turner themselves relate this metaphor to a general notion of contest, which, as I have shown in Chapter 3, is essential to many non-computer game theories of play (see Huizinga, Caillois, Fink, and Sutton-Smith). This is particularly the case when these play theories are developed around an idea of cultural progress based on some sort of existential struggle. Lakoff and Turner subordinate the latter metaphor to "a more general basic metaphor" which they identify as "STAYING ALIVE IS A CONTEST" (Lakoff and Turner 1989, 16). Following the inheritance principle of metaphoric systems in cognitive metaphor theory, this means that LIFE IS A CONTEST can be considered the superordinate metaphor, and STAYING ALIVE IS A CONTEST and DEATH IS LOSING A CONTEST AGAINST AN ADVERSARY are then subordinated metaphors.

Lakoff and Turner furthermore suggest that the STAYING ALIVE IS A CONTEST metaphor is usually applied when one speaks about death, and specifically about "the possibility of dying" (Lakoff and Turner 1989, 16). They suggest that there are all sorts of different contests which can become a source domain in this metaphor, such as "a race, a wrestling match, armed combat, a struggle with a beast, a chess game" (Lakoff and Turner 1989, 17). Sadly but fittingly, the essayist Christopher Hitchens writes, in his final essay, how he received the diagnosis of terminal esophageal cancer: "in whatever kind of a 'race' life may be, I have very abruptly become a finalist" (Hitchens 2012, 4).

In line with my observations in section 3.9, this allows every kind of combat or competition to be connected to some kind of existential struggle or a weaker version of this. In this light, every situation or concept which describes a competitive structure can therefore easily be "gamified" in a competitive game setting. However, considering that some kind of existential struggle is at the basis of games and play throughout cultural history, one can also assume that competitive games always already *are* some sort of existential struggle. I will elaborate on this

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[63] More examples for the DYING IS LOSING A CONTEST AGAINST AN ADVERSARY metaphor can be found in Lakoff and Turner's book (Lakoff and Turner 1989).

thought a bit later. Madsen and Degn Johansson now claim for their game having implemented the LIFE IS A JOURNEY and the DEATH IS LOSING A CONTEST AGAINST AN ADVERSARY metaphor. Madsen and Degn Johansson claim that "proper examples of this type of game seem rare" (2002, 85). Yet the description of their game reads like a generic third-person game. They describe it formally as follows:

> "In the game the player controls a humanlike character third person point of view, and has the choice of exploring various paths in a maze made of transparent walls and haunted by ghosts. While avoiding the ghosts the player can collect 'earthly goods' in the form of money and by playing a lotto game. Both activities contribute to the score as well as the occasional apple, which may be collected in order to gain an increase in health score. The ghosts work against this scheme by lowering the health score upon collision. The player has only one life, and while it is possible to reach a high money score by collecting Danish kroner bills, collecting an apple only results in a very small health increase, which will prolong the game time by approximately a second. It is possible to terminate the game prematurely by using the emergency exits of the maze. Otherwise, the game ends when a random time is up or when health points gets [sic] down to a negative value. When this happens the player is ejected upwards from the maze and the screen turns black" (Madsen and Degn Johansson 2002, 83).

Their own comparison of *Vanitasspillet* to *Pac-Man* (its game structure is called "Pacman-style" (Madsen and Degn Johansson 2002, 74)) suggests particularly clearly that *Vanitasspillet* is rather a generic game. Nonetheless, Madsen and Degn Johansson locate both metaphors, LIFE IS A JOURNEY and DEATH IS LOSING A CONTEST AGAINST AN ADVERSARY, in the game. They say "Death is represented by ghosts which haunt the maze in Pacman-style and should be avoided by the player" (Madsen and Degn Johansson 2002, 74).

For Madsen and Degn Johansson, the requirement for a game to be metaphoric is that it contains both the source and the target domain of a metaphor (Madsen and Degn Johansson 2002, 82). In the case of the *Vanitasspillet,* this requirement is fulfilled, according to the authors. Similarly to *The Marriage*, analyzed in Chapter 4, the target domain of the LIFE IS A JOURNEY metaphor, LIFE, is supposedly evoked by the game's title as well as by its introductory screen, which displays the sentence "What do you want to do the rest of your life?" (Madsen and Degn Johansson 2002, 84). The source domain, JOURNEY, is according to

the authors "represented by the movement of the third person character, which is to be lead [sic] through a maze by the player" (Madsen and Degn Johansson 2002, 84). Elements of the JOURNEY concept, such as "crossroads, destination" etc., moreover, are represented by the game's spatial structure.

In its use of a maze structure, the game is drawing on a generic feature common to many games, as we have seen, among others, in Nitsche's and Aarseth's typologies of game spaces. If one only considers the game's informational layer, the structure of the game is very much generic: the player navigates an entity through a maze which is chased by detrimental entities (ghosts) and collects objects by passing over them (earthly goods). This structure is very reminiscent of *Pac-Man*, a reference which the authors suggest themselves but which they do not sufficiently elaborate upon. In *Pac-Man,* the player controls an entity (Pac-Man) which is chased by detrimental entities (ghosts) and collects objects (dots). In both games, the player has to avoid the ghosts in order to keep playing the game.

Yet, both games also differ. *Pac-Man* allows the ghosts to hit Pac-Man three times before a game is over. *Vanitasspillet* features a health score whose content decreases when the player gets hit by a ghost, and which can possibly be increased again. The game is over when the health score gets into a negative value due to too many hits. In addition, *Vanitasspillet* also features two further ways in which the game can end. It can end "prematurely" when the player uses the "emergency exit," or "when a random time is up" (Madsen and Degn Johansson 2002, 84).

It is thinkable that playing *Pac-Man* could be experienced differently if it featured a sudden ending like the *Vanitasspillet*. On the other hand, even in the classical *Pac-Man,* one can hardly predict when exactly a Game Over will occur. Having said that, when a player has only one life left, it is certain that a Game Over will happen the next time Pac-Man is hit by a ghost. Thus, the abilities of the player put her theoretically in a situation to control and possibly avoid the premature ending of the game. In *Vanitasspillet,* the game can end at any time without the possibility of the player's avoiding it, and it is therefore only controllable to a certain degree.

Nevertheless, in both games, the player has to make sure to avoid the ghosts in order to keep playing the game in the first place. As such, the player has to subordinate herself to the

"gameplay condition," a concept developed by Olli Leino (2010; 2012). It is explained as follows:

> "The condition of the player, who by definition desires to play, is characterized by a duality of freedom and responsibility: the game gives her a freedom of choice while simultaneously making her responsible for this freedom by resisting her project of playing" (Leino 2012).

In *Pac-Man* as well as *Vanitasspillet*, the freedom to do what the player wants to and possibly can do in the game is limited by the materiality of the game, which, in both games, appears among others in the form of chasing ghosts. That means that, in order to prevent a game from discontinuation, the player has first and foremost to make sure that the ghosts do not collide with the player-controlled entity. I will get back to Leino's concept in the following section.

Although the *vanitas* topic is interestingly implemented in the game with the possibility of a sudden ending, this is not important for the metaphors which are supposedly involved. First and foremost, the LIFE IS A JOURNEY and the DEATH IS LOSING A CONTEST AGAINST AN ADVERSARY metaphors are both, again, metaphors which structure Western human thought and understanding. They are derived from many different linguistic examples, such as poetry, but they also structure everyday language and thought. This means they are derived from language and are assumed to structure our thinking.

The interesting aspect with these metaphors is that they are used unconsciously, and can be derived from linguistic or other sorts of discourse. Making them explicit through analysis, however, might destroy their effect as structures of thought. Thus, it seems slightly naive to say that representing these abstract structures of thought has a similar poetic effect to the use of the metaphors in the literary examples discussed above. This is an essential issue which needs to be discussed later in this thesis. These conceptual metaphors, however, do not state more specifically how they should be implemented in a game. Thus, one can say that both *Pac-Man* and *Vanitasspillet* feature these two metaphors. In this regard, *Pac-Man* contains the LIFE IS A JOURNEY metaphor and the DEATH IS LOSING A CONTEST AGAINST AN ADVERSARY metaphor just as surely as *Vanitasspillet* does.

More specifically, though, one would need to say that both games contain the source domain JOURNEY of the LIFE IS A JOURNEY metaphor, in that playing the game consists of moving an entity through space under certain conditions, such as avoiding obstacles, which constitute the elements of the JOURNEY concept provided one accepts expressions such as "it's been a long and bumpy road" from the LOVE IS A JOURNEY metaphor (Lakoff and Johnson 1999, 64) as being part of the JOURNEY concept. The existential topic of death is rephrased as a contest against some detrimental entities. *Vanitasspillet'*s most important elements are, again, SPACE and STRUGGLE/WAR or agon   although it is framed as exemplifying the *vanitas* theme.

The obvious question now is, again, in which way the designer believes that the LIFE IS JOURNEY metaphor and the DEATH IS LOSING A CONTEST AGAINST AN ADVERSARY metaphor have been implemented. According to my observations in sections 4.5 and 5.3, it seems that the game always already provides a journey structure, and that is why an according metaphor can be projected upon it.

Again, I believe, the approach to metaphor has to be seen the other way around. Instead of claiming that there are games which are metaphoric, as is common especially in the procedural rhetoric and the artgame discourse, one has to see the whole picture. It seems that this will to expression, meaning, and metaphor seems to blind the users of the concept of metaphor and make them overlook the fact that the games they describe as metaphoric feature rather generic game structures.

Similarly, Aarseth speculates that games, generally, are perhaps "an allegorical version of the eternal conflict between order and disorder, law and chaos, and so on" (Aarseth 1997, 160). To me it seems that procedural rhetoric has to face the question of whether it is really possible to implement a certain meaning into a game and make the particular rhetoric accountable for it, or, on the other hand, whether these games always already provide the preconditions for the respective rhetoric qua simply being games. The former is the position defended by representatives and supporters of procedural rhetoric, and, as such, by analysts as well as designers. Often, these two categories come together in the same person. I believe it is particularly the designer side in them promoting this argument in order to make their games appear more interesting. The latter will be supported by the next section, in which I will briefly show that philosophers and theorists of play also consider play and games as being existential.

5.4.3 Play as existential in philosophy and play theory

I have just shown that, on the background of discourses concerned with games with a message and/or procedural rhetoric, particular games are either designed or interpreted in terms of existential phenomena. Contrary to that, I now want to show that, in philosophy and non-computer game and play theory, play has often been already related to some sort of existentialism. As a ubiquitous phenomenon of being human (see Huizinga 1998), it is itself an essential part of the human condition.

I have already introduced Eugen Fink's take on play in section 3.3. In this section, I showed that Fink, who is influenced by existential philosophy, argues that play is an existential phenomenon itself, and is thus equal to "death, love, work and struggle for power" (Fink 1968, 22). In a way, these existential phenomena are always present in play, since it "confronts them all – it absorbs them by representing them" (Fink 1968, 22). Referring to objects of play, Fink additionally mentions that any object of play:

> "represents the totality of objects: play is always a confrontation with Being. In the plaything the whole is concentrated in a single object. Each game is an attempt at existence, a vital experiment that encounters in the plaything the essence of unyielding reality" (Fink 1968, 23).

Particularly in the light of my discussion in Chapter 3, it is reasonable to consider play as being just as primordial as other existential phenomena, such as an existential struggle – since at the basis, play is only not what it simultaneously is due to a fundamental distinction which is characteristic for play.

Its primordiality and autonomy suggests that play itself might be *a* or *the* fundamental mechanism or principle of existence. Now, this might seem like the conviction of a philosopher who is trying to colonize the notion of play. However, Huizinga makes a similar move, claiming that play is the principal mechanism of culture by saying that, "culture arises in the form of play" (Huizinga 1998, 46). As such, whereas Fink names play a mechanism of existence, Huizinga names play a mechanism of culture. Assuming that existence precedes culture, we can say that, in Fink's approach, play happens on the first order, while, in Huizinga's approach, play happens on the second order of existence, assuming that existence

is ontologically more real than culture which constructs an understanding of existence (e.g. existentialism).

In the conclusion of *The Ambiguity of Play,* Sutton-Smith aims to answer the initial question of his study: "What is play itself?" (Sutton-Smith 1997, 8). After having framed his notion of play in terms of Gould's theory of evolution (quirky shifts, redundancy, and flexibility; see Chapter 3), Sutton-Smith also draws a strong relation between play and an existential struggle for survival in the section entitled "The Struggle for Survival as the Motivation for Variability" (Sutton-Smith 1997, 228). There he writes:

> "All creatures, animal and human, live with some degree of existential angst, and most of them spend some portion of their existence attempting to secure themselves from this angst by controlling their circumstances. All creatures live in a world of strong feelings and are dominated by those feelings. We constantly seek to manage the variable contingencies of our lives for success over failure, for life over death. Play itself may be a model of just this everyday existentialism" (Sutton-Smith 1997, 228).

Here we have to note that Sutton-Smith uses two notions, model and existentialism. From metaphor theorist Max Black we know that the notions of model and metaphor are closely related to a degree that one can count for the other (Black 1962b, 219–243). Consequently, Sutton-Smith suspects what Fink clearly expressed: play is a metaphor or a model of existence. Moreover, from Huizinga's discussion of play, one can derive an emphasis on an existential origin of play. What is particularly interesting in Sutton-Smith's quote is that he does not distinguish between an existential angst of animals and of humans. This existential angst is then a pre-cultural commonality of "all creatures," and thus of "animal and human".

Arguing for a biological approach to play as opposed to a cultural approach, David Myers (2010) quotes Richard Schechner, who "define[s] play as a facsimilization of the struggle for survival" (Schechner in Myers 2010, 4). This struggle for survival is so basic for existence – no matter if for animals or for humans, who at the bottom line, are also animals – that it is obviously also part of the human condition, except that it became culturalized. In a developed civilization (see the civilizing process of Elias as described in Chapter 3) the struggle for survival can be described as having been tamed. Nevertheless, humans have to make sure that they keep existing, in the sense of staying alive, in the first place before they can do anything else in their lives, such as thinking about having a career, having a family etc.

Whereas Chapter 3 focused on structural relations between concepts of metaphor, representation, and play, I focus here on the particular concept of existentialism or the human condition as being closely related to play. This sort of implied existentialism is clearly also linked to Gadamer's notion of the game as always being at risk. As such, Gadamer points to the fact that a game is "a risk for the player" (Gadamer 2004, 106), with the result that she can either fail or succeed in her plans and actions. Gadamer continues, "the attraction that the game exercises on the player lies in this risk. One enjoys a freedom of decision which at the same time is endangered and irrevocably limited" (Gadamer 2004, 106). This immanent being-at-risk of a game, and the freedom of a player within a game's structure, are two notions which are related to existential philosophy. The risk element is clearly linked to the element of failure, which I have presented in the last section as a particularly often-mentioned form of game rhetoric. In the worst case, failure can result in a game over. Just think of *Tetris*: if the player fails to avoid having the tetrominos collide with the top game space limit, not only is the player's own position as a player of this very game put at risk, but the whole game is over. With this observation, Gadamer implicitly refers to Jean-Paul Sartre's existential philosophy. The notion of freedom of choice and its possible delimitation is a central characteristic of the human condition which Sartre describes in the wake of Husserl, and, particularly, of Heidegger (see Sartre 2003). In more recent philosophy ,the term has been made popular by Hannah Arendt in her book entitled *The Human Condition* (Arendt 1998). Moreover, the question of the fundamental conditions of what it means to be human (also known as "conditio humana") has always been central to philosophy. As such, *Being and Time* (Heidegger 2008 [1927]) by Arendt's teacher, Heidegger, can also be read as an approach to the human condition. It is common knowledge that Heidegger has been greatly influenced by Aristotle and other ancient Greek philosophy. In turn, Sartre's existentialism is very much based on Heidegger's philosophy of *Dasein*.

In Chapter 4, I already briefly introduced Olli Leino's notion of the gameplay condition. Leino's concept is particularly interesting with regard to an essential existentialism in games and play. He develops the notion of the gameplay condition based on Gadamer and Sartre. From a Sartrean perspective, Leino assumes that a game's materiality or structure is characterized by a certain resistance to the player's intentions to do whatever she wants to do in a game. As an example, Leino writes:

> "…in the materiality of *SimCity 4* [(Maxis 2003)] the extent of my freedom is defined before I set out to play: some kinds of actions and their combinations are possible whereas others are not" (Leino 2010, 132).

The characteristic of the gameplay condition is that a player cannot do anything she wants, but only what is possible within the limits of a game. Additionally, Leino makes the distinction that the responsibility to uphold the gameplay condition in physical games rests on the players, whereas in single-player computer games the gameplay condition is automatically imposed by the game's materiality. In this regard, the gameplay condition delimits the freedom of the player of a particular game; yet, simultaneously it provides her with the kind of freedom which is specific for this particular game. Leino also develops a notion of gameplay which is based on Gadamer's idea that a game is always at risk of ending abruptly (2010, 133). To illustrate this, Leino suggests a distinction between *play* and *gameplay*. *Gameplay* implies operating a computer game under the condition that the playing of the game itself is at risk of ending at any time. Leino writes:

> "…the difference between play and gameplay is that in gameplay, the continuation of the activity is what is at stake. […] Furthermore, that regardless of how trivial the activities constituting gameplay might seem in light of one's real-life concerns, we can speak of risk, success and failure, suggests that a game indeed 'contains its own seriousness' (cf. Gadamer 2001 [1960], 102)" (Leino 2010, 133).

What is particularly interesting here is that Leino uses the model of human existence as developed by Sartre in order to apply it to play – or, better, to the gameplay of games. As such, he is in a way conceiving of games in terms of a doubling of the structure of existence as conceptualized in existential philosophy. In addition, however, also Leino emphasizes the notions of risk, success, and failure with regard to games. Still, what is most important in Leino's concept of the gameplay condition is that respecting the gameplay condition is the baseline of what a player has to do when playing a game in order to safeguard her continuing to be a player in the game, thereby also making sure that the game keeps being played and, as such, exists. This is not dissimilar to humans who have to make sure they eat and sleep in order to keep existing before they can think of doing anything else.

As such, one can see now that games and play have been termed as always already being existential as such. As a result, one can assume that many games always already exhibit or embody an existential condition/a gameplay condition.

What is interesting with regard to Leino's notion of the gameplay condition, moreover, are two essential elements which are both related to play, and which play an essential role in Heidegger's philosophy of Dasein. These elements are fearing and caring.

For the sake of my argument, I will briefly and, admittedly, very superficially, offer an introduction to the devleopments of these notions in Heidegger's *Being and Time* (Heidegger 2008 [1927]) in order to explain how, in Heidegger's thought, the care structure is essential for Dasein's fundamental mode of being in the world. I am going draw on the Hubert Dreyfus' commentary (1991) on Heidegger's *Being and Time* (2008) for reasons of comprehension. Dreyfus writes: "care unifies the various structural aspects of Dasein's way of being" (Dreyfus 1991, 238). It is more fundamental to these ways of being, and, therefore, always already a part of them. Care is thus contained in each element of the multiple triple structures Dasein consists of. Heidegger writes "being-in-the-world is essentially care (Sorge)" (Heidegger 2008, 237 quoted in Dreyfus 1991, 239). In other words, everything a human being does contributes eventually to its own being. Care is also part of Dasein's being-in-the-world with other human beings in the form of "solicitude (Fürsorge)" or with the objects that surround it in the form of "concern (Besorgen)" (Dreyfus 1991, 239). However, it has to be seen the other way around. Because Dasein is always already caring, it can "make itself an issue" (Dreyfus 1991, 238). Thus, it can only be concerned with others because of being primordially caring.

> "Care, as a primordial structural totality, lies 'before' every factical 'attitude' and 'situation' of Dasein, and it does so existentially *a priori*; this means that it always lies in them. So this phenomenon by no means expresses a priority of the 'practical' attitude over the theoretical. When we ascertain something occurrent by merely beholding it, this activity has the character of care just as much as does a 'political action' or taking a rest and enjoying oneself. 'Theory' and 'practice' are possibilities of being for an entity whose being must be defined as 'care'" (Heidegger 2008, 238 quoted in Dreyfus 1991, 238).

Further evidence for an essential existentiality of play due to a close relation to the concept of care is provided by Huizinga's observation that the notions of play and of caring (German

"pflegen") have the same etymological roots (Huizinga 1998, 39). Huizinga is advocating for a primacy of existence when noting that the etymological predecessors of play and "pflegen" are "the Old English *plegan* and the (continental) Old Saxon *plegan*, the Old High German *pflegan* and the Old Frisian *plega*," at the same time noting that they "have, however, an abstract sense which is not that of play" (Huizinga 1998, 39). Their "oldest meaning" is more related to existential (as in dangerous) situations, "'to vouch or stand guarantee for, to take a risk, to expose oneself to danger for someone or something'" (Huizinga 1998, 39). Later, it meant "to bind or engage oneself (*sich verpflichten*), to attend to, take care of (*verpflegen*)" (Huizinga 1998, 39). And only after that, according to Huizinga, the notion of *pflegen* in German:

> "…is also used in connection with the performance of a sacred act, the giving of advice, the administration of justice (*Rechtspflege*), and in other Germanic languages you can 'pflegen' homage, thanks, oaths, mourning, work, love, sorcery and – lastly but rarely – even 'play'" (Huizinga 1998, 39).

As such, Huizinga assumes that "'to play' and *pflegen* […] are etymologically homonymous," yet the "difference [between the two terms] lies rather in the fact 'play' moves and develops along the lines of the concrete while *pflegen* does so along the line of the abstract; both, however, being semantically akin to the play-sphere" (Huizinga 1998, 39).

As such, we can see at least two things in Huizinga's discussion which are important for my argument. Firstly, apart from Heidegger's philosophy of Dasein, the notion of care has also been related to existential phenomena such as taking a risk or exposing oneself to danger, and also to work and love. Secondly, the notions of play and care are intertwined. This particularly makes sense when considering that play always implies a paradoxical dual structure by being simultaneously what it is distinguished from (see Chapter 3).

Consequently, we can assume that Leino's gameplay condition involves a sort of caring, in the sense that the player of a game has to take care to maintain her status as a player in the game, and, as such, to keep the game at play. Thought from the perspective of the game as being the subject whose existence is at stake (Gadamer 2004, 106), one can thus assume that no matter if a player is human, an animal, a machine or an algorithm, play itself requires some sort of care, or better: playing a game *is* some sort of care. With an emphasis on the care element, one can even reframe, for instance, Will Wright's interpretation according to which playing *SimCity*

feels like some sort of gardening. Gardening, after all, is also an instance of care. In German, for instance, one speaks of the "Garten*pflege*." In addition, it is even possible to speak of a gameplay condition for gardening. The gardener has first of all to take care of the well-being of her plants in order to pursue other projects with them. As avid gardeners know, the well-being of plants is at stake if the gardener does not take action in time and configures the garden in a way which contributes the well-being of the plants, such as giving them the required amount of water or fertilizer, and so on.

There is a tendency in the work of some authors to see play as being so essential for existence that they even use this existentiality, which is characteristic for both animals and humans, to explain why play is a pre-cultural phenomenon. As quoted above, Sutton-Smith refers to "all creatures, animal and human, live with some degree of existential angst" (Sutton-Smith 1997, 228). The same goes for Schechner's conceptualizing of "play as a facsimilization of the struggle for survival" (Schechner in Myers 2010, 4).

With this reference to angst and the struggle for survival, we arrive at the second element essential to Heidegger's philosophy of Dasein, as well as to play theory, which is fear. We remember that, for Huizinga, *agon* or contest "bears all the formal characteristics of play," and therefore accounts for the play element in all kinds of cultural institutions featuring agonistic figurations, such as war, the stock market, poetry etc. (1998, 31–35, 46–75). Furthermore, he emphasizes the close relationship between contest and fear when he observes that the Greek terms *agon* and *agonia* share an "intimate connection," in that the "latter word originally meant simply 'contest', but later 'death-struggle' and 'fear'" (Huizinga 1998, 51). Studying the concept of dramatic suspense in the Scholia of the *Iliad,* German philologist Andreas Fuchs offers a similar insight. The terms 'fear'/'anxiety' and 'competition' have the same etymological root, which is the Greek term *agōn* (Fuchs 2007, 29). As there is an etymological relationship between competition and fear, one can assume that fear is a fundamental structure in the gameplay of games of competition, such as action games or turn-based and real-time strategy games.

Heidegger's notion of fear is based on Aristotle (see Heidegger 2006, 141), who defines it as follows:

> "Let fear be defined as a painful or troubled feeling caused by the impression of an imminent evil that causes destruction or pain; for men do not fear all evils, for

instance, becoming unjust or slow-witted, but only such as involve great pain or destruction, and only if they appear to be not far off but near at hand and threatening, for men do not fear things that are very remote; all know that they have to die, but as death is not near at hand, they are indifferent. If then this is fear, all things must be fearful that appear to have great power of destroying or inflicting injuries that tend to produce great pain. That is why even the signs of such misfortunes are fearful, for the fearful thing itself appears to be near at hand, and danger is the approach of anything fearful" (Aristotle 1926, 22: book 2, chapter 5).

Aristotle's definition of fear as a "painful or troubled feeling" is caused by something dangerous or "fearful" which is "imminent," i.e. something which is possible but has not happened yet. The imminence thereby can refer to something which is temporally imminent as well as spatially imminent. His definition clearly states that fear requires the fearful thing or event to be near rather than far. Additionally, Aristotle's examples show that agonistic relationships are particularly predestined for fear, like as is the case in relations between rivals, enemies, or between stronger and weaker individuals, as well as relations of inequity, vengeance or dependency (1926, 22:book 2, chapter 5).

To give an explanation of fear in Heidegger's *Being and Time* in the shortest possible manner, I shall quote Dreyfus' commentary on Heidegger's work. He explains Heidegger's threefold structure of fear as follows:

> "*The fearing as such* […] is the mood that lets something matter to us as fearsome" (Dreyfus 1991, 176).

> "*That which is feared* [is] [s]omething specific coming at us, in some specific way, from some specific sector of the environment" (Dreyfus 1991, 176).

> "*That which is feared for* [is] Dasein itself as threatened in some specific respect. This need not be some part of the body. Fear can threaten Dasein's self-interpretation by threatening its projects" (Dreyfus 1991, 176).

I am mainly interested in that *which is feared* and that *which is feared for*. The latter can be regarded as a) the player who fears for his being in the game; or b) the playing of the game, that is, the game at play, which is constantly threatened in its very existence and therefore is the "subject" of fear.

The objects of fear or *that which is feared* are harmful objects in the game space threatening an object in the game that is not to be hit, injured or killed. These objects often point at the direction of the objects that should not be hit. Heidegger calls them "detrimental" (abträglich, simply understood as "harmful") in relation to the object that is not to be affected (in games, these objects are usually represented as characters, avatars or geometric objects). Fear is at play if the harmful object is at an approachable distance from where it can potentially be harmful. Heidegger calls this a threat. The emerging uncertainty – whether the approaching harmful object(s) will finally be harmful or not – is fundamental to fear. Temporally seen, the fearsome is always in the future. As soon as it happens, it does not exist anymore. Seen from the spatial point of view, the fearsome is always within a certain distance, from where it bears the possibility of causing harm. For Aristotle as well as Heidegger, the fearful/harmful is near (no matter if temporally near or spatially near) which makes it part of an essentially spatial constellation which often occurs in situations of competition, and, consequently, in games which constitute such a situation.

Many computer games visualize this situation of threat, in that there is always an entity in the gameworld which is not supposed to get in contact with another entity: Pac-Man is not supposed to collide with a ghost in *Pac-Man*, the tetrominos are not supposed to collide with the upper game space limit in *Tetris*, the goal is not to be hit by the ball in *FIFA 13* and real-world football etc. However, *The Marriage* also features a situation of threat, which, in this case, is visualized by the opposite spatial constellation. It is not nearness that serves as an indicator for threat; rather, it is the increasing distance between the two central game entities that makes it more likely that the game will end. As such, one can say that many games bear an existential risk, and that the player's most important task, before she can do something else in the game, is to keep this risk low by playing the game in a certain way.

In this section, we could see that Leino's notion of the gameplay condition works well within a general conceptualization of play as existential. In addition, concepts which are central in existential philosophy of Heideggerian origin apply well to computer gameplay. With regard to the gameplay condition, one can thus say that it additionally implies a care structure and a fear structure. Fearing that a game is at risk is an element of a game's implicit gameplay condition, as well as of the player's own human condition or characteristic existential mode of being. Fear here can be assumed to be an individual emotional state, but can also be considered an

objective structure in the game, in that certain game states are more threatening for the game's continuation than others.

5.4.4 Existential games

Getting back to Rohrer's disappointment that we will not get any closer to portraying the human condition in a game than what he did with *Passage,* and also to Koster's and Rusch's wish to portray the human condition in games by better understanding them and designing them (see above in this chapter), one can say, with regard to the previous discussion, that the human condition is always already part of many games in the form of resistance, fear, and caring. The question would then be: how do these designers want to get more of the human condition into a game?

Those computer games whose existence, i.e. whose being at play, is at stake if the player does not respect the gameplay condition can thus be termed existential games. From the perspective of play, which Bogost intentionally excludes from his observation, one can say that play always already involves such an existentiality. However, as we have seen, interpretations from within the framework of procedural rhetoric often end up interpreting specific games in some sort of existential topic, be it work, love, struggle or the like. Clearly, elements of the structure of human existence as defined by Heidegger, such as caring and fearing, are certainly also characteristic for work, love, and struggle.

As discussed in the previous sections, those games which are explicitly framed as representatives of procedural rhetoric or artgames are meant to express an existential topic: to look again at our examples, *The Marriage* is a simulation of our metaphorically structured concept of LOVE (Möring forthcoming), *Tax Invaders* represents political STRUGGLE (Bogost), and *Vanitasspillet* expresses MORTALITY (Madsen and Degn Johansson). However, in terms of their existentiality as games, they do not differ much from those games which are rather mundane computer games; and these have also been interpreted in terms of existential topics: *SimCity* as a sort of GARDENING (Wright), *Tetris* as WORK (Murray), *Pac-Man* as a metaphor for WORK (Crawford), *Space Invaders* as a metaphor for SOCIETAL FRUSTRATIONS (Crawford). What all these games have in common is that they exhibit a gameplay condition which a player has to subscribe to and take care of if she intends to retain her status as a player in the game.

Hence, these games can all be described as existential games, in that their being a game at play is at risk if a player does not engage with them or makes detrimental choices. The only games among those I have discussed which do not exhibit a gameplay condition, in that the player cannot fail and cause the game to end, are *Passage* and *September 12*. In other words, the existence of these two games is never at stake. Yet, one can say that they make the existentiality of many other games even more apparent to a player, as they challenge this particular expectation. Bogost makes a similar observation. With regard to the difference between *Kabul Kaboom!* and *September 12,* he states that, "videogames that deploy rhetorics of failure make a subtly different statement than those that are simply unwinnable, or that actively enforce player loss" (Bogost 2007a, 87).

Regarding questions of game expression and interpretation, procedural rhetoric has to deal with the problem of whether games really do express their existential topics because those have been implemented in the game by a designer, or if these game objects are always already existential qua being games? In this regard, I believe it is too simple an approach when Bogost avoids regarding game objects from the tradition of play and only focuses on these objects from the perspective of representation (or rhetoric). Particularly when game designers make use of conventional game structures in order to convey a message, it is questionable if the (metaphoric) existential meaning of these games lies indeed in their designed rhetorical procedures or if these game objects are always already existential and are therefore capable of conveying a certain existential meaning.

Provided the SimCity effect (see chapter 4) holds empirical validation, it teaches us that the content a game represents gets lost over extended periods of gameplay. What is left when playing such a game is trying to keep it in play. Thus, when playing *The Marriage,* for instance, we can at some point ignore what it is about, as our efforts when playing the game are focused on keeping it at play. What it represents is secondary. One can also see it the other way around. The existentiality of the game, requiring the user to keep the game in play, takes precedence over its textual or expressive layer (see e.g. Järvinen's thematic layer). Thus, keeping the game at play is a necessary precondition in order to allow the game to unfold its textual information. For *The Marriage,* this means that, as a player, I have, first of all, to make sure that the game keeps being played in order to see which particular scriptons it provides me with (Aarseth 1997, 62).

It seems that one can distinguish between games whose primary intention is to show something or to point at something,[64] and games which do not have any such intention but just are. I hold that most procedural rhetoric games (artgames, newsgames, etc.) intend to show something, as their intention is to convey a certain message. They rely very much on the textual plane, which culminates in games such as *Passage,* which, no matter what the player does, *shows* (as in *depicts*) the "procedure" of living on the visual plane, with the player, apart from deciding where to move the player character, having no further influence on the game. Still, the game demonstrates some sort of human condition as it exists towards an end (see Heidegger's notion of "being towards death" in Heidegger 2008) due to its predefined duration of play, even if this end is never uncertain. Many games which are initially termed simulation games, such as *SimCity* and *FIFA 13* (Electronic Arts Canada 2012)*,* intend to show something, but can easily be played in their own right. In addition, these games, as opposed to artgames and newsgames, have some sort of replay value. Whereas most procedural rhetoric games are only interesting until the "message" has been understood, *SimCity* and *FIFA 13* are played in their own right. This might also be due to their complexity, which is commonly higher than games from the procedural rhetoric paradigm. In Aarseth's terms, one can say that in complex simulation games the difference between the actual game object and the implied game object is much larger than in most games from the procedural rhetoric paradigm. For games from the procedural rhetoric paradigm, this means that, since it is more about conveying a message than the use of the actual game object, that which is experienced by a player is commonly not much different from the implied game object. As such, there is no need to play the game any further in order to get the message. Additionally, if the game relies on standard game structures, like *Tax Invaders,* it is not even necessary to play the game at all.

In this regard, one has to say that computer games always already embody the human condition in that they show essential existential structures such as caring, fear and spatiality. Thus, Rohrer is wrong when fearing that the closest one can get to representing the human condition through games is his game *Passage* (Dahlen 2010). The same goes for Rusch and Koster, who want to study how the human condition can be better represented through

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[64] That games point at something can be understood as indicating. As such simulations as well as games from the realm of procedural rhetoric might also be understood as index signs.

games (see above). I hold that games always already embody essential elements of the human condition, in that they do not represent some sort of existentialism but that they *are* existential. Studying these aspects gets us perhaps much closer to the relationship between the human condition and games than analyzing the way in which these games represent the human condition.

5.5 Text and existential hermeneutics of games

At the end of this dissertation, I have come to the conclusion that the use of the notion of metaphor in game studies refers to the problem of interpretation with regard to games. This is pointing at an important problem in game studies concerning the interpretability of computer games. I believe that there are at least two different hermeneutics we have to distinguish.

Particularly for cases such as Bogost's interpretation of *Tax Invaders* and Murray's interpretation of *Tetris*, yet also for the cases of *Passage* and *The Marriage,* most of the interpretations available rely on the semiotic layer of the game. This has been particularly shown with Bogost's analysis of *Tax Invaders,* where it became questionable what he was actually interpreting – the game at play or something else? In Bogost's case, I have suggested that the metaphors interpreted in *Tax Invaders* could have easily been related to the game without actually playing the game, since it is already a cultural text. I furthermore held that playing the game is subordinated to the interpretation of its content, and must therefore be considered a sort of text-fulfillment. Analysis of the language of Bogost's and Murray's interpretations has shown that they consider the kind of play in their interpretations as roleplay and thus as representational play.

In addition, I have shown that Bogost frequently uses visual metaphors in order to account for what persuasive games in particular refer to. Although there is a difference between the media of text and images, they both belong to the semiotic layer of a game. Therefore, they will both be taken as the same kind in this final section, and referred to as semiotic or textual elements. I have also demonstrated that most interpretations of computer games as metaphoric on the background of procedural rhetoric, as well as the artgame and games with a message discourses, refer, interestingly, to an existential topic or to the human condition: all interpretations – no matter if in terms of work (*Tetris*), politics (*Tax Invaders*), love (*The*

Marriage) – come down to some spatial struggle at their basis. I have also shown that games and play have always already been related to a notion of existence as such.

This can be generalized for the paradigm of procedural rhetoric (and within artgames, newsgames etc.): those computer games which are meant to (intentionally) or which are suspected to (unintentionally) convey a specific message favor a text hermeneutics.

Thus, I am going to argue that we deal with at least two different kinds of hermeneutics when we speak of game interpretation – a text hermeneutics and an existential hermeneutics. Eventually, I will try to argue for a bodily hermeneutics based on insights from cognitive metaphor theory.

It will serve to clarify the general argument if I briefly unfold the two different hermeneutics as such. The *Stanford Encyclopedia of Philosophy* writes, "the term *hermeneutics* covers both the first order art and the second order theory of understanding and interpretation of linguistic and non-linguistic expressions" (Ramberg and Gjesdal 2009). The notion of hermeneutics thus describes interpretation as a praxis and, simultaneously, the theory of this praxis. Having historically been a method mainly concerned with the correct interpretation of biblical and juristic texts (see Nöth 1995b, 334), the meaning of hermeneutics changed around the passage from the 18th to the 19th century, from a tool to generate understanding from texts into an fundamental structure of being human. Hermeneutics:

> "…is no longer conceived as a methodological or didactic aid for other disciplines, but turns to the conditions of possibility for symbolic communication as such" (Ramberg and Gjesdal 2009).

This so-called "ontological turn" is particularly related with Heidegger (and, later, with Gadamer), for whom hermeneutics are the structure of how one is always already in the world. This means one cannot choose to be hermeneutic (as one does when undertaking a thorough interpretation of the Iliad in an introductory seminar for the analysis of literature) because one always already *is* hermeneutic in all situations of one's everyday life. In other words, one cannot choose to understand, but one always already understands.

> "Now hermeneutics is not only about symbolic communication. Its area is even more fundamental: that of human life and existence as such" (Ramberg and Gjesdal 2009).

In the style of the famous quote by Paul Watzlawick, one can say, in Heidegger's terms: one cannot *not* be hermeneutic. Obviously, Watzlawick's observation that "one cannot not communicate" is a direct result of this fundamental structure of being, as it refers to the fact that we can *interpret* all kinds of signs as an act of communication even when they are emitted unintentionally.

The topic of hermeneutics has so far only been tackled by a handful of researchers in game studies (Aarseth 2003; 2004; Elverdam and Aarseth 2007; Sicart 2009; Arsenault and Perron 2009; Arjoranta 2011; Karhulahti 2012a; Leino 2012). Aarseth suggests that the process of learning how to play a game well is sort of a hermeneutic feedback loop between play and non-play activities. He holds that playing a game well consists of learning how to play it in the first place, as in learning how to use the controls in the right way, analyzing the game's behavior in actual gameplay etc. Learning how to play consists of a first-person engagement with the game object, in the sense of playing it yourself. Aarseth additionally describes a lot of non-play activities which can contribute to the knowledge of how a game works: these include "previous knowledge of genre, previous knowledge of game-system, other players' reports, reviews, walkthroughs, discussions, observing others play, interviewing players, game, documentation, playtesting reports, interviews w/ game developers" (Aarseth 2003, 6). In this regard, playing a game consists of the praxis of doing it as well as the analysis of reports of others doing it.

Later, Aarseth distinguishes between "the traditional hermeneutic paradigms of text, narrative and semiotics" and "a simulational hermeneutic"; he states that the former hermeneutic is much different from the latter due to an essential distinctions between ordinary narratives and games, or ordinary texts and cybertexts (2004, 52). The problem of whether games can be "subject to a textual hermeneutic" depends for Aarseth on the question of whether "games can be said to be 'texts'" (Aarseth 2004, 45). He argues that games are not primarily textual (they can contain text, such as the introductory texts in *Tax Invaders,* but this does not make them textual as such) in that "a central 'text' does not exist – merely context" (Aarseth 2004, 47). In a similar way, Juul suggests, with regard to ideological meanings in games such as *SimCity*, *The Sims*, or *Monopoly,* that "the ideology isn't in the game but in the assumptions around the game" (Juul quoted in Frasca 2007, 101). This is furthermore suggested by Paul's observation, as introduced in section 1.6, that games are cultural objects (Paul 2012, 2) and as

such always already part of a discourse consisting of different "surrounding texts" (Paul 2012, 3). Speaking of the context of games aligns with my suggestion, earlier in this chapter, that *Tetris* and *Space Invaders* can be considered cultural texts particularly because they involve many of Aarseth's just-mentioned "non-play" activities such as player's reports, discussions of these games in public and academic discourses, and so on. Thus, a lot of text has been produced *about* these games since they emerged.

The question is, what happens to a game when it is constantly contextualized? Do we really get to know more about a game, or do we rather get to know how a game becomes conceptualized as an object within a certain context? An inextricable problem with this question is certainly the fact that every discourse about games is necessarily textual. Particularly in an academic environment, one necessarily textualizes games when speaking about them. Yet, does one really verbalize what one experiences while playing the game? This problem is also addressed by Sutton-Smith's phrase, which I have already quoted in section 5.2.5 when dealing with this problem in the example of Bogost's analysis: "it is clear that verbalizations about a ludic experience are not the same as that experience" (Sutton-Smith 1997, 216).

Furthermore, Aarseth distinguishes games (or cybertexts) from other media in terms of their primary user function, which, in games, is *configuration,* as opposed to the arts (he means here primarily non-ergodic art such as paintings, film, literature etc.) whose primary user function is *interpretation* (Aarseth 1997, 62–65; also in Eskelinen 2001). From this distinction, one might get the impression that the one excludes the other. However, this is not the case, and this is why Aarseth speaks here of a *primary* user function. Inspired by Aarseth's typology, Markku Eskelinen relates configuration and interpretation with each other in the catchy sentence:

> "…in art [literature, theatre, and film] we might have to configure in order to be able to interpret whereas in games we have to interpret in order to be able to configure" (Eskelinen 2001).

In both cases, art and games, configuration and interpretation can both be involved, but in a different relation. This seems to be a misconception in Eskelinen's distinction between games and other aesthetic forms. Using the expressions 'interpretation' and 'configuration' for both games and text makes it fairly difficult to disclose what is really at stake here. It is unimportant

if, in games, interpretation precedes configuration or the other way around. One could even say that, in games, configuration is interpretation.

The problem here is that one implies that a text hermeneutics is at play for both texts and games. As such, for instance, Jonne Arjoranta (2011) distinguishes between correct and incorrect interpretations. However, the assumption of a correct interpretation presumes some kind of monosemy of a text (Nöth 1995b, 336–337). Additionally, one can assume that a correct interpretation means something different for a game than for a text, due to the different ontologies of texts and games. However, the misunderstanding seems to lie in the conception of games as being some sort of text, or more precisely: a cyber*text* (Aarseth 1997). When Eskelinen says we might have to configure in order to interpret a text, and that we have to interpret in order to configure a game, he indirectly points to the different hermeneutic approaches to play and games.

It is important to emphasize this, because games are different from other kinds of non-configurative/non-ergodic texts. The primary interpretation Eskelinen speaks of with regard to the arts can be considered a text interpretation. The primary form of interpretation required to play computer games is a kind of practical or existential interpretation which is necessary to operate a computer game. Obviously, there are also interactive artworks, such as, for instance, Jeffrey Shaw's installation "The Legible City" (Shaw 1988), which requires the user to configure the artwork and thus to interpret how to use it before she can think about any interpretation of the "meaning" of this artwork. In this regard, some interactive art shares a similarity with computer games (see also Leino 2012).[1]

Aarseth suggests that games "foster experimentation versus narrative which fosters observation" (Aarseth 2001a, 154). As such, he implies a distinction between games, which are primarily ready-to-hand (they are operated), versus texts and other non-ergodic works which are rather present-at-hand (they are looked at). Yet, even interactive installations like "The Legible City" can be present-at-hand – for instance, when reflecting on how one operates the installation. This is similar to Calleja's distinction between micro- and macro involvement in games: whereas the former accounts for a player being involved in operating a game, the latter accounts for the reflection on game actions or strategies while not operating it at the same time (Calleja 2011, 37). This means it does perhaps not alone depend on the ontology of the object in question which mode is active but also on the user's perspective.

Obviously, games can be read, too. But are we then speaking about game strategies or tactics, or their interpretability in terms of other subject matters? It seems likely that some games foster the one and some the other of the two modes. This is reminiscent of Bogost's distinction between the observation of games from the tradition of representation and the tradition of play (see section 5.4.1). It is possible to take either of the two points of view: the first-person player of a game or the third-person observer of a game.

Gadamer has framed the problem at hand by saying that "all presentation is potentially a representation for someone" (Gadamer 2004, 108). In this regard, each game at play which is operated by somebody for its own sake, for instance, a game of *Space Invaders,* can be seen by somebody else as representing something.

> "Only because play is always presentation is human play able to make representation itself the task of a game. Thus there are games which must be called representation games, either because, in their use of meaningful allusion, they have something about them of representation (say 'Tinker, Tailor, Soldier, Sailor') or because the game itself consists in representing something (e.g., when children play cars)" (Gadamer 2004, 108).

In this regard, all simulations and procedural rhetoric games (artgames, newsgames, etc.) are representation games which allude to something else. Gadamer mentions "a religious rite and a play in a theater" as examples for forms of play whose:

> "…being is not exhausted by the fact that they present themselves, for at the same time they point beyond themselves to the audience which participates by watching. Play here is no longer the mere self-presentation of an ordered movement, nor mere representation in which the child playing is totally absorbed, but it is 'representing for someone.' The directedness proper to all representation comes to the fore here and is constitutive of the being of art" (Gadamer 2004, 108).

Gadamer here provides an interesting observation, saying that a certain variety of play is directed at an audience. Particularly for simulations and the question of a literacy of simulation, as well as procedural rhetoric, one can say that these kinds of games are directed at an audience. This explains why Murray and Bogost frame their interpretations of *Tetris* and *Tax Invaders* in terms of a roleplay. As such, they actually refer to a second sort of play, which

Gadamer identifies apart from the to-and-fro movement of the self-presentation of play. This sort of play is the one that is at the basis of Gadamer's hermeneutics, which assumes the interplay between an artwork and its interpreter in the act of interpretation. It appears that, for procedural rhetoric, the message to be conveyed is specifically one which is made available by the observation of the game from a second-order or the third person point of view. In this regard, the game is primarily a form of showing instead of being. Speaking with Huizinga, we can say that a contest can be both a representation of a contest and a contest in itself (see Chapter 3). Bogost emphasizes the audience perspective, and, as such, the representational aspect of the game. The performance of the player is secondary. The best example is *Passage,* in which the performance of the player plays no role in that the game cannot go wrong depending on her performance, since the game is lacking a gameplay condition. When the game is started but not being played, it will eventually end, since the user can by no means prevent this from happening. Most of the game's text will unfold when it is not operated upon. I would hold that this second sort of play accounts for the textual hermeneutic, whereas the Gadamerian self-presentational play, in terms of computer games, accounts for what I am going to suggest as being an existential hermeneutic.

Distinctions between two different hermeneutics with regard to games have been suggested by Jonne Arjoranta (2011) and Veli-Matti Karhulahti (2012a). Karhulahti suggests two hermeneutic circles are at play when playing games. The *ludic hermeneutic circle* refers to the player's ludic understanding of the game and its contribution to the player's advancement in the game (Karhulahti refers to adventure games in particular). This also implies that the player *configures* the game and thereby affects the current game state (e.g. opening up new game spaces, new rooms or changing strategic situations etc.) and the process of the game, but not the implied game object (see Aarseth 2011). On the other hand, there is what Karhulahti calls the *poetic/aesthetic hermeneutic circle* concerned with "acquiring and interpreting narrative or other aesthetic literary information" (Karhulahti 2012b)[65]. In time-critical action games (Pias 2004), as Karhulahti indicates, the ludic hermeneutic circle will be much more in the foreground.

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[65] Karhulahti adds that, especially in adventure games, there is a bias towards the poetic/aesthetic hermeneutic circle. "A comprehensive understanding of the adventure game object does not therefore reflect solely on its ludic call to overcome challenges and on its narrative appeal to restore behavior but also on its facet of poetic reading" (Karhulahti 2012a).

In a similar fashion, Dominic Arsenault and Bernard Perron constructed a model of gameplay and called it the magic cycle. The model's title is partly inspired by the misleading discussion surrounding the concept of the magic circle in game studies and partly by the concept of the hermeneutic circle in order to react to "misconceptions of gameplay" (Arsenault and Perron 2009, 109). One of their major criticisms is a missing "distinction between the process of playing a game and the game system itself" (2009, 109). Arsenault and Perron conceptualize "the cognitive frame of gameplay as a cycle", starting from the basic assumption "that playing a video game is always a continuous loop between the gamer's input and the game's output" (Arsenault and Perron 2009, 113). Their cycle contains three different spirals, which are interconnected in the gameplay process:

1. *Gameplay* is a heuristic spiral which describes the player's learning process with the game and assumes that she gets better over time (similar to Aarseth 2004). In addition, new features of a game can be introduced. Each successive game session will be informed by knowledge gained in preceding sessions.

2. *Narrative* is a heuristic spiral which describes the player's engagement with any narrative elements that might be present in the game. Acknowledging that there are games without narrative, such as sports games or abstract games like *Tetris,* Arsenault and Perron remark that most games feature "some kind of narrative, ranging from basic framing narrative […] to a rich and complex plot." Similarly to the gameplay cycle, the player progresses through the narrative spiral and "slowly grasps what is going on" (Arsenault and Perron 2009, 116).

3. The *hermeneutic circle* is the third spiral, and is "concerned with revealing hidden, nonobvious meanings" (Arsenault and Perron 2009, 117). Their example is Murray's metaphorical interpretation of *Tetris* discussed earlier.

Arsenault and Perron's gameplay spiral resembles Karhulahti's ludic hermeneutic circle, and their narrative spiral resembles his poetic hermeneutic circle. Game input can affect the game state and has consequences for the ludic hermeneutic circle as well as the narrative circle. On the ludic level, it could open up new gameplay options and, by doing so, it could drive the narrative, reveal new information about characters, and the like. However we want to call it – the gameplay cycle or the ludic circle or simulation or game mechanics – it seems clear that this is primordial to playing a game, and narrative has to be considered secondary. Karhulahti,

however, would say that in adventure games the narrative is primary - however, even in this case, it seems pretty clear that the structure of an adventure game follows the structure of its mechanics, and, therefore, the structure of the narrative is bound to this. If an adventure game has an underlying tree structure, this pretty much determines the unfolding of the game.

It is interesting that Arsenault and Perron only consider the third spiral as a hermeneutic circle as opposed to the other two cycles, which are considered heuristic. Heuristic (from the Greek "find" or "discover") seems to refer more to a kind of existential hermeneutic which is concerned with being in and coping with a world in a Heideggerian sense, which would makes the game appear from a first-person perspective during play (Leino 2010). Thus, the existential hermeneutics I am suggesting here does not make the process of playing its object but it *is* the process of playing a game. This perspective considers playing a game as a hermeneutic process in which "the game and the player come into being within a ludic experience" (Sicart 2009, 86).

Arsenault and Perron's hermeneutic circle, which intends to find a deeper meaning in games, focuses, similarly to Murray and Bogost, on games as an object and as a text. This does not mean that they disregard the procedural nature of games (see Arjoranta 2011, 2), which is implied in the fact that their respective ideal game object (Aarseth 2011) is the object of a hermeneutic engagement. In this regard, we are talking about a text hermeneutic approach, which can follow a logic of interpretation as reconstruction or as productive interpretation (Nöth 1995b, 337).

Particularly because existential hermeneutics is primordial to text hermeneutics, it is important to point at this distinction and make it visible in our reflection on games. Therefore, I will now elaborate on an engagement with games as text hermeneutics and the existential hermeneutics of playing a game.

5.5.1 Text hermeneutics of games

Taking up the question asked in section 5.5 – what happens to a game when it is constantly contextualized? – I aim to argue here that most interpretations of games in terms of another topic consider games as texts. Thus, we speak in these cases of a textual hermeneutic of

games. As already suggested, it is perhaps due to the introduction of the notion of games as text, or particularly cyber*texts,* by Aarseth in 1997 that this notion has come to be very prominent within game studies, despite the fact that, in this initial instance, games were conceptualized as being clearly different from ordinary linear texts. Already the notion of reading a game's meaning suggests that the textual paradigm is at play in the background. Bogost's, Murray's, Madsen and Degn Johansson's and all other quoted readings of games in terms of metaphor only related, at best, in a marginal way to the gameplay of a game, considering it as a sort of text-fulfillment. Accordingly, I suggested rephrasing Eskelinen's phrase "in art we might have to configure in order to be able to interpret whereas in games we have to interpret in order to be able to configure" (Eskelinen 2001) to "one needs to interpret in order to be able to configure in order to be able to interpret".

Murray herself suggested that she reads games such as *Tetris* as a form of text (Murray 1997, 143). Obviously, one can interpret games like other sorts of texts – however, the primary engagement with games is to play them. The necessary question to ask is then: what does an interpretation of a game in terms of something else gain for the playing of the game? It seems like this kind of interpretation is meant to motivate the existence of certain games as something of more value than itself – that is the intention of simulations, newsgames, artgames and other examples of procedural rhetoric/games with an agenda.

However, in this process of interpretation, one can argue, the game's status changes from that of a material object which a user engages with in a practical performative process, to that of a topic of conversation, and, as such, a text. In this regard, a game becomes a conversation piece (or a cognitive model) through which to understand other things (see also in section 5.6). 'Conversation piece' here means that the game is a subject of conversation, and, as such, of a discourse. This, I believe, is what Bogost meant when pointing out that he addresses the games he discusses from the perspective of representation rather than the perspective of play (see section 5.5).

Aarseth observes that:

> "…games like *The Sims* are sometimes (not often) used as storytelling machines, when particularly memorable moments in the game are retold by the player/god. But this is not translation from game to story, this is simply good old after-the-fact narration" (Aarseth 2004, 50).

In a similar way, games can become text generators, through becoming an object in after-the-fact reflection. In trying to understand how this applies for computer games, I would like to offer one possible interpretation myself, while knowing that other interpretations are also possible. According to Heidegger's and Gadamer's takes on hermeneutics, every interpretation of the world relies on the so-called fore-structure (Heidegger 2008) or a (positively connoted) prejudice which is historical and always already present at the beginning of each interpretation (Gadamer 2004). In other words, knowledge never exists hermetically, but is always already embedded in a certain context of pre-existing knowledge which can be subjective or objective – for instance, as what constitutes the body of conventional knowledge in a certain culture at a certain time. Thus, this pre-existing knowledge is the context Aarseth speaks of (Aarseth 2004, 47). For the cases of the interpretations of *Tax Invaders* and *Tetris,* one can say that, particularly in Western culture, there exists a large body of knowledge and text regarding politics and work. As such, it is perhaps not the case the game that provides a text, but, rather, that it is incorporated by an already-existing text in culture, and thus textualized itself.

One can reinvestigate Bogost's analysis of *Tax Invaders* in terms of the Republican discourse of tax policy, which is largely structured by WAR metaphors. The striking observation here is that, as a reader, one cannot distinguish whether Bogost really speaks about the game in terms of tax policy, or about tax policy in terms of the game. Similarly to Eskelinen's objection that one does not learn anything about *Tetris* when Murray interprets it in terms of WORK (see above), one does not learn anything new about the game *Space Invaders* in the case of *Tax Invaders* as analyzed by Bogost. Thus, I hold that we learn more about the metaphorical structuring of Republican rhetoric concerning tax policy than about the game *Tax Invaders* working metaphorically. A reason could be that *Tax Invaders* works as a concept which uses the game *Space Invaders* as a prop or a text. However, playing the game does not add anything to it. Playing *Tax Invaders* simply remains playing *Space Invaders,* particularly when we consider the SimCity effect and assume that the game is played over a longer period of time, at which point the game's representational quality vanishes.

I therefore assume that *Tax Invaders* and *Space Invaders* are not themselves metaphoric. The games fit a form which is already provided by the discourse of conservative tax policy – discourses which clearly precede the games. It is part of the prejudice (see Gadamer 2004)of a

potential interpreter who interprets the game, as Bogost does. Consequently, even the WAR/STRUGGLE metaphors that are structuring this discourse already precede the interpretation of the game. As a result of this, the tax policy discourse already presupposes some sort of a model for war, which, as we have seen in Chapter 3, is, at its simplest, an archetypal model of a duel. This model can then be exemplified by all kinds of game objects which, in one way or another, feature some sort of competition. In this regard, *Space Invaders* (before it became *Tax Invaders*) came in handy to fit this position which was always already part of the political discourse.

In particular, cognitive metaphor theory suggests that, in metaphor, the abstract becomes more concrete through models which originate in the realm of the concrete, such as everyday life (see, for instance, Kövecses 2010, 17, 175). This was shown in Chapter 2, where I examined the most common source domains of everyday thought from the realm of everyday life as suggested by Kövecses. Being primarily defined as a mechanism of thought, metaphor is useful in making this thought more concrete by applying concrete thought models to abstract domains of thought. In this regard, it is perhaps more interesting within the discourse of tax policies to think of conservative tax policies according to the model of *Tax Invaders* than it is to play the game.

In games, which, as a praxis, are necessarily concrete, abstract thoughts are then concretized again, and thus lead back to some sort of original model which has always already been the basis of such an abstract thought. Tax policies (abstract) have been understood in terms of an archetypal duel (concrete) and are exemplified (simulated) by a similarly archetypal model of a duel (*Space Invaders/Tax Invaders*).

This is why one can speak, again, of a literalization (Bogost 2007a; Madsen 2001) or a de-metaphorization of a metaphor. Thus, I believe it is in text and thought that metaphors are most interesting, because, in these contexts, they open a dimension to speak and think about things which would otherwise be more difficult, or even impossible, to realize. Conversely, what I believe to be most interesting in the case of games is that they always already contain the concrete which is at the basis of metaphors. Thus, one might say they de-metaphorize metaphors and return them to their origin. This is at least the case for the examples discussed in this thesis, and particularly for the concepts having SPACE and STRUGGLE as a source domain.

Clearly, textualizing a game is much simpler when the game itself is not very complex and the ideal and the actual game object do not differ much. One can assume that simpler games lend themselves particularly well to an observation from the third-person point of view or from the audience perspective. This is apparently also valid for games which openly expose themselves as being primarily meant to start a conversation, such as games of procedural rhetoric, artgames etc. Yet, as I have said, this sort of hermeneutic is a different hermeneutic than the one that happens while playing a game –and this is what I intend to show in the next section.

5.5.2 Existential hermeneutics of games

We have seen that most games which are interpreted as metaphoric, or as an instance of procedural rhetoric, refer at the basis to some existential topic, such as work, love, struggle etc. We have furthermore seen that games and play have been termed existential as such. In addition, Leino suggested considering single-player computer games as exhibiting a gameplay condition, a concept derived from the existential philosopher Jean-Paul Sartre which allows us to speak of the games we have analyzed as being existential games. Thus, one can hold that playing a game *is* existential as such.

First of all, Heidegger's hermeneutics is centered around his notion of understanding, which also serves, to him, as a starting point for unfolding the more complex hermeneutic structure of Dasein in *Being and Time* (Grondin 1994, 93; Heidegger 2008, 182–203). As opposed to an "epistemological understanding" as represented by classical hermeneutics (and the textual hermeneutics just described above), Heidegger's notion of understanding suggests that Dasein (a human being) always already understands. Understanding is one basic way in which its world is disclosed to a human being. Therefore, the primary notion of understanding refers to an idea of practical understanding, or to some kind of tacit knowledge of how something is done that does not make the object of this knowledge thematic. This idea of understanding can be illustrated with the sentence "to be at home with something [sich auf etwas verstehen]" (Grondin 1994, 93). Jean Grondin provides the right example from the realm of games and play: "we might say that an athlete 'understands' or knows how to play soccer" (Grondin 1994, 93). Thus, the player knows how to play the game. But this does not imply that she can verbally articulate her know-how. In a similar way, we understand how to operate a door

without thinking about it or making it explicit in an everyday life situation. This sort of understanding is thus revealed in some sort of praxis.

This inexplicit everyday understanding of how to deal with things is the fundamental structure of Dasein. Since understanding "is a way of existing, a fundamental mode of being," Heidegger also calls it existential (Grondin 1994, 93), in the sense that it is necessary for mere survival in the everyday. This everyday knowledge does not only include practical wisdom, such as knowing how to use a hammer; it can also account for the practical wisdom of theorists who might follow the same basic paths in their thinking without reflecting upon them. "To understand a subject in a theoretic or scientific manner in fact means to be up to it, be able to cope with it, so that one can proceed from there" (Grondin 1994, 94).

This understanding is a fundamental mode of Being, and that is why it mostly remains implicit. This is also contained in what Heidegger calls the fore-structure of interpretation, which is provided by its basic familiarity with its world which is always already given (Dreyfus 1991; Heidegger 2008). Therefore "all the 'things' and events that we deal with in our life-world are preinterpreted by this anticipatory understanding 'as' things destined for this or that use" (Grondin 1994, 94). In other words, while hammering we understand a hammer *as* a thing to hammer with just by doing so. If we were used to using a cup to hammer with on an everyday level, we would understand the cup *as* a thing to hammer with. Heidegger calls this kind of understanding the hermeneutic *as,* describing an inexplicit, pre-linguistic notion of understanding which is distinguished from the apophantic *as*, which designates the more common notion of understanding as propositional and explicit.

For Dasein, this fundamental understanding of its everyday world is existential in terms of "its concern for itself" (Grondin 1994, 95). Understanding, in turn, is part of the structural whole called "care" (Sorge) or the "care-structure." This is how a human being relates to itself and the world (Grondin 1994, 94). The most fundamental basis of this care structure is that Dasein takes care of its existence in that it ensures its own continuation.

It should not be difficult to see connections between this sort of hermeneutic and the assumptions and the criticism I have uttered with regard to Bogost's and Murray's game interpretations insofar as they omit the playing of the game in their interpretations.

The gameplay condition demands a hermeneutics inspired by Heidegger, quite literally as the "interpretation of existence" (Grondin 1994, 91; see also Heidegger 2008; Dreyfus 1991), which, as opposed to a text hermeneutics, can be called an existential hermeneutic. In addition, it is an a priori of text hermeneutics within the Heideggerian framework. Particularly for existential games (those game which threaten to end themselves when not being played, or to go wrong when not being played in favor of a goal set by the game or by a player) it becomes obvious that an existential hermeneutic is required, referring to the necessary understanding of how to keep the game at play in the first place. For most games discussed so far, this means that a player only has to take the undeniable (Leino 2007) semiotic elements of a game into account. For the case of *The Marriage,* for example, this means that a player does not need to see the game *as* a simulation of a relationship; for the existence of the game, in the sense of keeping it at play, it is sufficient to understand the spatial configuration of the game at a certain game state and its meaning for the well-being of the game. The existential hermeneutic is not non-semiotic; but the semiotics of the game is only relevant in that it provides information about the game state (is it likely to end soon or not?). As such, configuring (Eskelinen 2001) a game well is an expression of understanding it well.

Leino recently suggested an existential hermeneutic for what he now terms "playable artifacts." These include all objects apart from computer games, such as interactive art or performance art, which impose a gameplay condition on the user, in that they make her use dependent on his performance (Leino 2012). In line with Leino, one can say that this sort of understanding of a game favors a first-person point of view when playing, as in playing the game oneself. We have seen in section 5.4.3 that play itself has been closely related to notions of care and fear. In Heidegger's philosophy of Dasein, understanding and fearing are both expressions of the a priori care structure of Dasein. With regard to play, one can therefore say that fearing is caring, and that configuring the game in order to ensure its well-being is an expression of this sort of caring.

When cross-reading Murray's and Bogost's interpretations, I could show that their interpretations of *Tax Invaders* and *Tetris* come down to this element of caring, too. Yet, they have framed this in terms of other existential topics such as political struggle and work, which are yet always already conceptualized in terms of WAR/STRUGGLE and SPACE.

In order to better distinguish this hermeneutic from a textual hermeneutic, it might be advisable to speak of understanding instead of interpretation, given that the notion of interpretation is very closely related to text interpretation.

There are two reasons to speak of a primacy of existential hermeneutics over textual or epistemological hermeneutics. First, even within Heidegger's notion of hermeneutics, the primordial existential hermeneutic is the condition of possibility for an epistemological and textual hermeneutic to appear. Secondly, for the case of games, one can follow Aarseth's and Eskelinen's suggestion that the process of configuration is more important for a game, since its text does not unfold if a game is not configured in a fundamental way. As such, even for the case of play as a text-fulfillment, the existential hermeneutic is a necessary precondition. The existential hermeneutic is then related to playing a game primarily as a form of *doing* or *being* (play as praxis, see e.g. Mersch 2008) versus the textual hermeneutic, which refers to a game primarily as a form of *seeing-as* and thus as a form of showing something. Clearly, text hermeneutics is also a sort of praxis, but one of a second order. As such, the to-and-fro movement of text hermeneutics does not occur within the game object, but in-between the object and its interpreter (see, again, Gadamer 2004).

5.5.3 Bodily hermeneutics of games

Apart from the textual and the existential hermeneutic of games, it appears that there is a third hermeneutic at play, which could explain some metaphoric interpretations of games. In his book *The Meaning of the Body: Aesthetics of Human Understanding* (2007), Mark Johnson sets out to argue that "meaning grows from our visceral connections to life and the bodily conditions of life" (Johnson 2007, ix; also quoted in Westra 2008). Johnson here continues his research on the embodiment of meaning already developed in his book *The Body in the Mind* (1987). Adam Westra, in a footnote to a review of the 2007 book, makes the interesting remark that, "while Johnson prefers to describe his investigation by the term 'aesthetics,' it could also be called a 'hermeneutics' of embodiment" (Westra 2008, 164). The hermeneutics of embodiment refers to an understanding of how meaning is embodied, or how meaning is based on a bodily existence in the world and the perception of the world through the body.

We have seen in Chapter 2 that many metaphors are based on this bodily being-in-the-world, and this is why many metaphorical concepts are considered as embodiments. This was particularly present in the theory of primary metaphor, according to which we learn to associate certain sensorimotor impressions with concepts which are then metaphorized accordingly.

I believe one can now assume that experiences which are similar to those associated with certain metaphors are still understood in such a way. Instead of a hermeneutics of embodiment, I propose that we consider a bodily hermeneutics of gameplay. This is based on the assumption that computer game play is also experienced on a bodily and pre-conceptual level. With bodily hermeneutics, I refer to an understanding of gameplay which is based on senses such as touch, but also on a sensing of own bodily reactions while playing, such as any muscle contractions which might occur when playing a game and which might be perceived as some sort of tension. Particularly invested and competitive players might react to certain game situations in a more bodily way, experiencing reactions such as muscle contraction, increased perspiration or the like. Clearly, these might be extreme cases and do not account for all players. Nevertheless, playing computer games is also itself a bodily activity. Players know this experience: when their being a player in a game is urgently at risk, they might push buttons harder or faster, or they might be more focused on the in-game action, perhaps adopting a tense posture. Similarly to the suggested tacit knowledge which could be gathered from gameplay experience, this bodily hermeneutics can then be seen as a bodily understanding of the gameplay experience. In Heidegger's terms, one could hold that bodily perception is part of the pre-structure of understanding, even though he did not himself pay much attention to the body in *Being and Time*.

In addition, experiences such as an increased strain or even stress in line with a muscle contraction might be perceived as FORCES while playing a game. With this in mind, one can reinterpret Murray's analysis of playing *Tetris*. In particular, the metaphors she applies from the domain of STRUGGLE/WAR, "onslaught" and "bombardment", can be a hint that *Tetris* is experienced in terms of FORCES which might be perceived through the body, for instance through the quick succession of button presses which are required to play the game – a succession which might be performed with an increased amount of force as the forces at work are perceived more strongly.

We remember the theory of primary metaphor suggests that all sorts of FORCES or COUNTERFORCES (see 2.4.8) are experienced on a preconceptual level during child development. These experiences are related to concepts such as STRUGGLE and WAR. I believe that the metaphors Murray uses in her interpretation of *Tetris* can hint at this kind of bodily understanding of the game while playing it. In turn, this could mean that the experiences of FORCES (muscle contraction) which are caused by stress or increased attention while playing, for instance, a time-critical game (Pias 2004), can be retrospectively verbalized in metaphors which somehow conceptualize experiences as STRUGGLE. Consequently, one could say that the experience of struggle in *Tetris* could – based only on this bodily understanding – be verbalized in terms of all sorts of experiences with a characteristic element of STRUGGLE, such as WORK, WAR etc. However, this does not necessarily mean that *Tetris is* a metaphor for WORK in particular. Instead, I would argue this means that *Tetris* is, on a bodily basis, understood in a similar way to the original experience which led to the conceptualization of experiences such as WORK in terms of STRUGGLE or FORCES. Thus, a textual understanding of *Tetris* in terms of WORK, as well as an existential understanding of the game being at risk, could in the end both come down to an actual bodily experience which is experienced as a succession of FORCES of changing intensities. Nevertheless, this bodily experience can coincide with an experience of fear, which can then be interpreted as a very immediate understanding of existence through the body.

From this perspective, one could again speak of some sort of de-metaphorization, in that the original experience of FORCES during gameplay is metaphorized in retrospective reflection as WORK. The experience during gameplay, however, might just be experienced as a muscular contraction and relaxation depending on the current game state, which can be more or less at risk at any given moment of gameplay. If it is true that the game experience essentially consists of this alternation between more intensely and less intensely experienced FORCES, this would be reminiscent of Gadamer's suggestion of a to-and-fro movement as being characteristic for play and games.

Furthermore, this perspective could also explain why Bogost and Rusch hold that abstract concepts, such as Republican tax policies or the human condition (see section 5.2.1), become "tangible" in games. Earlier in this chapter, I argued that the notion of tangibility has been used in its metaphoric sense by Bogost and Rusch. For the argument to be made here, one

has to think of tangibility as an actual bodily understanding of a game. The literally tangible elements when playing a game, then, are the FORCES and COUNTERFORCES of controller use, an increased attention level and possible muscle contraction depending on a player's performance, the current game state and a player's goals in the game. Contrary to the interface metaphors presented in Chapter 1, input interfaces play a different role here. The question is not how some represented game action is mapped onto a controller. In the light of the bodily hermeneutics being suggested here, input interfaces are important in the way they make the player bodily perceive the FORCES and resistances of gameplay. Along the same lines, Leino's gameplay condition, which is, among others, based on the notion of resistance in Sartrean philosophy, can be a hint that games are experienced as some sort of COUNTERFORCE which is always already part of a game which exhibits a gameplay condition.

If it turns out that this bodily hermeneutics is the basis of metaphorical interpretations of gameplay experiences, then one can assume that all other interpretations of games in terms of WORK, LOVE etc. are just reformulations of this experience. For metaphor research with regard to games, it would therefore seem to be a useful way of analyzing meta-game language which refers to the gameplay experience rather than to a game's theme, as suggested by Ensslin (2012, 75). In doing so one can see which metaphors are primarily being used by players to conceptualize these gameplay experiences.

5.6 Conclusion

In line with a criticism of procedural rhetoric, I have argued, in this chapter, that metaphoric interpretations of games from the perspective of procedural rhetoric are text interpretations. The game structures applied in these games could be considered cultural texts, as they are already central elements of media culture, youth culture, and game culture. This implies that these interpretations look at the game from an audience POV, and are thus observations of second-order. I have also shown that in these kinds of interpretations the playing of a game is conceptualized as a sort of representational play or roleplay.

Furthermore, it turns out that metaphoric interpretations on the background of procedural rhetoric consist themselves of notions from the domain of STRUGGLE and SPACE, no matter if

these games are interpreted in terms of WORK or TAX POLICIES. STRUGGLE and SPACE are, as we have seen, classical game elements.

The strong presence of the domain of SPACE led to an investigation of the spatiality of games, which suggests that all kinds of games which exhibit spatial structures potentially also exhibit the spatial pre-conditions that are central to cognitive linguistic metaphor theory. This is particularly the case for mimetic games which feature environments similar to real-world landscapes.

The strong presence of the domain of STRUGGLE led to further observations of game interpretations that perceived the game in question as metaphoric. It turned out that many "readings" of games conceptualize them in terms of existential topics. This was contrasted with conceptualizations of play and games as always already existential. Spatiality, together with a constant element of struggle or resistance, are essential to the human condition. Based on the notion of a gameplay condition, it is therefore possible to speak of existential games.

It resulted that the authors operating within the procedural rhetoric paradigm themselves suggested a literalization of the alleged metaphors at play. This supports my suggestion that, with games, it makes sense to speak of a de-metaphorization of any concept applied to them. On the one hand, this de-metaphorization is based on the SimCity effect, according to which, after some play time has elapsed, the representational capacity of a simulation vanishes. On the other hand, this de-metaphorization is also due to a transformation of concepts from the realm of thought into the realm of praxis. Consequently, while playing, we are first and foremost *doing* SPACE and STRUGGLE, and only secondarily *thinking* of the concepts associated with these practices. This distinction became particularly clear when observing that most interpretations from the perspective of procedural rhetoric refer to existential topics, a fact which was contrasted with the idea that games are always already existential. This culminated in a distinction between a text hermeneutic and existential hermeneutic. The text hermeneutic is based on an observation of games as texts – it therefore emphasizes a game's semiotic layer and its cultural context. It is directed towards the interpretation of the game as text. The existential hermeneutic is derived from a games' materiality and its being at stake – it therefore emphasizes a game's mechanical layer. It addresses the praxis of playing as a necessary interpretation of the game state in order to keep a game (or an existential game exhibiting a gameplay condition) at play. For a game at play, the latter hermeneutic is primary, whereas the

former is secondary. This problem of a distinction between praxis and thought was already present in Chapter 3. Finally, I suggested a bodily hermeneutic of games which can be derived from the metaphoric descriptions of game experiences.

Chapter 6 – Conclusion

The goal of this dissertation has been to investigate the notion of metaphor in the game studies discourse. The research question I set out to answer is: what are the motivations for calling games metaphoric in the game studies discourse? I will now set out to present the contributions of this dissertation to game studies.

First of all, this dissertation demonstrates that there is something like a metaphor discourse in game studies, in that the notion of metaphor has appeared with a consistent frequency throughout the literature ever since game studies itself has come into existence. Up to this point, however, there had been very little systematic research regarding the notion of metaphor in the realm of games. The literature review in Chapter 1 therefore provided an overview of how the term is applied in game studies, which is already a contribution in itself. It shows that metaphor can be considered a central term in major problem areas within game studies, such as game ontology, game interfaces, game experience, game rhetoric and meaning, and game language. A central problem of this discourse is that the notion of metaphor is often not sufficiently defined, and its use often not explicitly motivated. Often, one has to guess or to refer to common knowledge in order to comprehend what could be meant with the term. This chapter also allowed us to divide the overarching research question into sub-questions pointing at more particular problems concerning the use of the notion of metaphor in game studies, thereby providing the dissertation with its focal areas. Before I investigated these problems, I provided an introduction to metaphor theory.

Chapter 2 provided knowledge from metaphor theory and delivered an introduction to the term. Here I showed that the notion of metaphor has gone through a paradigm shift. Metaphor was originally considered a means of poetic language and the expression of the artistic capacity of the few rather than of everybody. Nowadays, metaphor is considered a basic mechanism of thought, being expressed in language but also in other media. Being a fundamental means of thought and language, metaphor is not an exclusive feature of poetic thought and language. Metaphor is the rule and not the exception. Insights from the interaction view on metaphor represented by Max Black and the cognitive linguistic theory of metaphor developed by George Lakoff and Mark Johnson provides us with the basis for

understanding what metaphor means. The cognitive linguistic view on metaphor proves particularly useful with regard to games. It combines the spatial and bodily situatedness of humans with our way of thinking. The large amounts of metaphors in everyday thought which refer to an underlying spatial structure suggest that the metaphors humans use are derived from our bodily existence in space. For instance, the source domain of the EVENT STRUCTURE metaphor, which is a superordinate concept metaphor to the LIFE IS A JOURNEY metaphor, provides many common structural elements of computer games, such as FORCES, MOVEMENTS, LOCATIONS, PATHS etc. This in turn suggests that many metaphorical concepts which are based on the EVENT STRUCTURE metaphor can potentially be projected onto games.

Regarding the overarching research question, the motivation for describing games as metaphoric could be that they *are* in fact metaphoric. In Chapter 3, I dealt with the observation that the notion of metaphor is often being referred to in non-computer game conceptualizations of play. It turns out that this is particularly the case when play and games are conceptualized as representational. Therefore we deal with a trio of terms – metaphor, representation, and play. I argued that the idea of play as being essentially separate is a necessary precondition for play to be able to represent something in the first place.Furthermore, I observed that some authors regard play as a dual structure which, apart from itself, also always refers to something which it is not. In this light, play could be seen as fostering an inherent self-reference as well as an external reference. This provided a link to metaphor. Similarly to play, metaphor consists of a self-reference which identifies it as a metaphor as well as an external reference to the concepts it associates. Like play, metaphor can be seen as consisting of a dual or a triadic structure. The interaction view on metaphor suggests that metaphor should be regarded as an essentially triadic structure similar to triadic sign structures. The central purpose of the third chapter was to show that all three concepts – metaphor, representation, and play – are often used to explain each other. I argued that this is possible because they all imply a particular paradox grounded in the above-mentioned essential triadic structure. Approaches from art history, anthropology, and philosophy showed that the similarity between these three concepts is so striking that play and metaphor can even appear as the same kind of thing, so that one could come to think in turn that play and games are always already metaphoric. Based on Huizinga's evolutionary theory of play, I argued for an equiprimordiality of metaphor, play and representation for human culture and suggested an evolutionary approach to representation, metaphor and play. Further investigation showed

that metaphor, representation, and play can be considered as elements of an evolutionary model, and, as such, as essential elements of cultural development. The contribution of all three forms – representation, play and metaphor – to cultural development can additionally be derived from the strong element of emergence in their conceptualizations. This evolutionary model aligns well with Lakoff and Johnson's metaphor theory, despite the fact that it takes the development of a culture into consideration and not only the development of an individual human being as the theory of primary metaphor does. The model of cultural development allows us to think of existence (battle) and the representation of existence (battle-play) as pure praxis which is later repeated on the level of thought. Simultaneously, this introduction of the capacity for representation allows us to think of the concept of play, which requires an essential distinction from what it is not which, paradoxically, allows it to simultaneously be it. This aligns with Lakoff and Johnson's assumptions that metaphorical concepts derive from everyday experience and action and are used to conceptualize more abstract domains of thought which themselves were only developed during the process of cultural evolution. I suggested that an idealtypical model of agon or an existential struggle can be thought of as a duel. The idealtypical model of the duel consists itself of space and struggle. The centrality of competition, agon and struggle in all sorts of concepts in our society and culture suggests that an experience of space and struggle is simultaneously at the basis of these concepts. This is, among others, evident in that agon (taken as synonymous with play à la Huizinga) and, as such, struggle itself, is seen as the actual engine of cultural development. Consequently, many concepts such as work, economy, politics, life or death are thought of in terms of struggle and space. When these concepts are put into a game they are put back from thought into praxis.

In Chapter 4, I made what I call the metaphor-simulation dilemma in game studies explicit. It became evident that the motivation for calling games metaphoric stems partly from implications that are related to the notion of metaphor from different fields. The application of the notion of metaphor in the artgame discourse turned out to be based on assumptions from classical rhetoric according to which metaphor is related to artistic expression. Therefore, the notion was applied to games which are assumed to be artgames. Closer examination, however, revealed that these games do not differ significantly from generic computer games. Thus, one can hold either that many more games have an artistic quality, or, conversely, there are no such games as artgames. In addition, I showed that the notions of simulation, procedural rhetoric and proceduralism (with regard to artgames) are closely

related, in that they developed successively from each other. Although I originally suspected that this development originated in a concept of simulation which was extended, or even transformed, into a notion of metaphor as a central technique of proceduralist artgames, one can now see that the concept of metaphor already plays a role in each of these. Metaphor is often used when dealing with simulation in order to account for a mismatch between the simulating and the simulated. Yet, as is also true for other forms of representations, a mismatch (due, for instance, to abstraction or low fidelity) is an essential requirement for all simulations: a simulating always needs to differ from the simulated, otherwise both would be the same thing and would lack a representational relationship. In procedural rhetoric, metaphor was present in Bogost's analysis of *Tax Invaders* and even though the term 'procedural rhetoric' did not exist at the time, Madsen and Degn Johansson's analysis of *Vanitasspillet* can also be gathered under this umbrella. For proceduralism, metaphor was termed an essential means of expression.

I have also raised the concern that the concepts of procedural rhetoric and proceduralism do not sufficiently differ from simulation. Games which are treated as exhibiting procedural rhetoric can also be considered simulations – the same goes for artgames exhibiting proceduralism. In addition, the notions of simulation and metaphor are applied for very similar purposes in game studies, to the extent that the notion of metaphor is itself used as a metaphor for a simulation. Are simulations then always already metaphors? The central dilemma consists of the suggestion of a difference where there is actually none. This dilemma is delineated by the research question, "which problems arise from the use of the concept of metaphor with regard to other established concepts in game studies such as simulation and procedural rhetoric?" A look into definitions of metaphor from the field of metaphor theory, and into simulations as applied in game studies but also in the philosophy of science, revealed the dilemma that metaphor and simulation could be too similar for useful distinctions to be drawn between the two. This suggests that the notion of metaphor would be superfluous.

Further analysis suggested that an assumed degree of similarity between a simulating and a simulated is not a useful means of distinguishing between metaphor and simulation. Instead, I proposed that it is eventually up to an interpreter and, as such, a convention, to account for whether or not a game is to be understood as a simulation of something else – the same then goes for metaphor. Arguing from the perspective of abstraction or reduction, and

acknowledging the representational quality of a simulation, I suggested that simulation games are always already synecdochic. Based on the conventionality of a simulation, I proposed distinguishing second-order simulations from first-order simulations, of which the former can count as metaphors. A second-order simulation originally simulates something *qua* convention (like a symbolic sign) and is later reused to simulate something else. This follows a semiotic model of metaphor according to which a signifier which was originally related to one signified becomes related to another signified. This dependency on an interpreter can lead to a conventionalization of an initially second-order simulation, which then "grows" into a first-order simulation. Then the simulation would resemble a dead metaphor.

It was possible to reconcile the notions of simulation and metaphor via the notion of the model as derived from philosophy of science. Simulations are based on models, and metaphors provide thought-models. The case study of the allegedly metaphoric game *The Marriage* showed that one can *see* the game *as* a simulation of a metaphorically structured model of love. Basing my analysis on the cognitive linguistic view on metaphor, I could show that the game simulates the spatial source domains which organize the metaphorically structured concept of love. In addition, one can assume that even this simulation is a representation, and, as such, a synecdoche, since it only represents selected parts of our metaphorically structured model of love.

Further investigation showed that, based on the SimCity effect, one can assume that the representational character of the simulation vanishes over extended play time in favor of the game object's characteristics. Thus, in the game *The Marriage* it is not so important how the game represents love. but rather the different ways in which a player ensures the game is kept at play, and, hence, its particular gameplay condition. In other words, it is more important to understand a game's state and to evaluate what actions to take in order to ensure its continuation than to know what it represents. In this regard, the praxis of playing a game overrules the meaning of a game. One can therefore say that a game which simulates the source domain of a metaphorically structured model of thought is not metaphoric itself, since the assignment of the target domain depends on an interpreter to connect the game with the concept. However, it provides the spatial source domain independently of the interpreter. In addition, the game itself is playable even when its representational character is not recognized. Even if the game is considered metaphoric by an interpreter, this metaphoricity can evaporate

due to the SimCity effect. In short, the SimCity effect suggests that after some extended play time the representational character of a game simulation vanishes and the game object with its own characteristics becomes foregrounded. What is left is then the game object as such. In line with the SimCity effect goes my suggestion of a de-metaphorization of a game. If *The Marriage* is understood as being a simulation of our metaphorically structured concept of love, the SimCity effect will make the pure game come in the foreground. It then merely consists of a negotiation of space according to its gameplay condition, making it, in this sense, no different to many other games.

In Chapter 5, I analyzed metaphoric "readings" of games and observed that most games are read in terms of existential topics such as struggle, work, life, death, or even love. This strategy is often pursued from the perspective of procedural rhetoric. These interpretations are problematic in that they are primarily text interpretations. They commonly happen in retrospect to the actual playing of a game, they take a third-person (audience) point of view as opposed to a first-person player or actor point of view, they relate to a game's cultural contexts (which, among others, consist of a lot of text which has been produced in the discourse about a game), and they largely refer to textual (semiotic (thematic layer)) aspects of a game. Yet, play and game philosophy has termed games and play as being always already existential. According to Fink, games are a smaller subset of the world which they are always already a part of, and therefore have some aspects of the world present in them. This existentialism of games is contained in their spatiality, their gameplay condition and their relation to essential categories of existential philosophy, such as caring and fearing. Computer games fulfill these categories even without being understood as representational games due to their own characteristics. In particular, the dominance of the domains of SPACE and STRUGGLE in game interpretations in terms of some existential topic is striking. However, these domains are also exhibited by a game with a gameplay condition if the reference has vanished or is not recognized at all. *Tetris is* a spatial struggle even if it is not understood as representing American office work life. This existentialism is more related to a game's mechanics than to its semiotics as an informational layer about the game state. Primarily at stake when playing a game is a game's continuation and wellbeing, and not its reference. Answering the guiding question for this chapter ("How can one reasonably resolve the paradox that the metaphoric meaning of games comes down to existentialism while games as such are always already understood as existential?"), I proposed distinguishing between a text

hermeneutics of games and an existential hermeneutics of games. Whereas the former refers largely to a game's textual thematic aspects, the latter refers to a game's mechanical aspects and its condition of possibility to be at play. One can also say that the textual hermeneutics considers games as textualized thought objects, whereas the existential hermeneutic is about a game at play, and therefore the game as a process.

Moreover, this chapter provided a criticism of procedural rhetoric, whose basic claim is that meaning is generated through procedures, and, as such, due to the procedurality of the medium. This could be criticized on several counts:

1. The language of the proponents of procedural rhetoric demonstrated that procedural rhetoric conceptualizes the representational aspects of games in terms of images or other non-procedural textual media. Bogost's frequent use of the notion "depict" suggested a bias towards the visual and textual aspects of games as a means for them to convey their messages.

2. Procedures can generally be represented through non-procedural media, and thus also through the non-procedural elements of a game. As such, one can suspect that a game which is assumed to exhibit procedural rhetoric might actually convey its message primarily through its contextualization of its procedures in terms of images and text.

3. Furthermore, the significance of preexisting knowledge deriving from an existing and ongoing cultural and academic discourse which textualizes and contextualizes games (game as cultural texts or objects) is underestimated.

4. When analyzing games such as *Tetris* and *Tax Invaders,* the function of playing a game plays a role in its argument and its metaphoricity. That is, one does not refer to different game states or the like. Instead, one speaks only in a very general way of the games in question, in terms which can equally apply for other games that exhibit a gameplay condition.

5. There is clear evidence that playing the games in question is understood in terms of roleplay. In this regard, playing a game is what Gadamer calls representation play. This sort of play is clearly directed to an audience, and, as such, to a third-person point of view. It emphasizes the representational quality of a game over the gameplay quality. In general, it seems that playing a game which exemplifies procedural rhetoric is some sort of text-fulfillment play. A game only needs to be operated until all its possible arguments have been constructed.

6. In addition, I problematized the procedural rhetoric position by arguing that the same games can allow for many different readings due to the generic source domains (STRUGGLE and SPACE) they always already provide. This makes it difficult to account for one valid interpretation of games. Moreover, I was able to show that games which were called artgames, such as *Vanitasspillet*, *The Marriage*, and *Passage,* did not differ significantly from mundane games such as *Pac-Man*, *The Sims 3*, and *Super Mario Bros.,* in that the latter set of games allow for the same "readings" as the allegedly metaphoric artgames. This confirms my observation that many games exhibit the source domains which are basic to many metaphors. Hence, artgames are not singled out as being predestined to be metaphoric. This also suggests that, instead of analyzing how artgames *show* or *represent* some sort of existentialism, it might be more interesting to analyze how most games *are* in some way always already existential. Furthermore, the grounding of these existential topics in concepts which, at the basis, consist of STRUGGLE and SPACE metaphors indicates that these existential concepts in games are reduced to a pre-conceptual experience of STRUGGLE and SPACE during gameplay. The experience of these domains originally provides the basis of metaphorical concepts, according to Lakoff and Johnson. Together with a transfer from thought back into the praxis of gameplay, this is the most important claim for my suggestion of a de-metaphorization which can then even be termed a de-conceptualization.

Let me conclude with an essay to answer the question, "what is a metaphoric game?" based on the analysis provided in this dissertation.

If metaphor is, first and foremost, a matter of thought, one can say that a computer game like the ones analyzed here cannot be metaphoric. However, like language, a game can express how we always already conceptualize certain subjects in terms of metaphor – this is the case particularly through a game's semiotic layer. Metaphor as such remains a matter of thought. Metaphoric games must then be games which involve metaphoric thinking as the ergodic element of a game. Those are then games which are described in Chapter 1 by Danesi (2002), Tronstad (2005), Fernández-Vara (2009) – that is, puzzles or riddles which require the mapping of two different domains onto each other in order to solve a puzzle. These games are primarily games of thought, and do not require a computer in order to be performed. Yet, computer games can also make the user think metaphorically in order to eventually hit the right button and thereby acknowledge a game's gameplay condition.

One can say that the idea of play is closely related to the idea of metaphor when both are thought of as processes. Gadamer's to-and-fro movement of play seems to be present in the process of understanding novel metaphors. Let us assume that a human receiver encounters a novel metaphor which appears paradoxical to her at first glance. Her urge to deparadoxify will make her think back and forth between the two paradoxically-related domains. This element of play in the understanding of metaphor will vanish as soon as a metaphor becomes conventionalized enough, and therefore no longer requires the receiver to consciously connect the dots between the two domains. What is interesting here is that the idea of a to-and-fro movement itself stems from the realm of bodily and spatial praxis (World 1) before it is repeated in the realm of thought (World 3). Thus, thinking of the thought process as a to-and-fro movement is itself a metaphor, but this only becomes apparent when observed from a higher order. As such, even when understanding what the concept of metaphor consists of, we use the spatiality and corporality which, according to Lakoff and Johnson, is at the basis of cognitive metaphor theory.

Considering the question of a metaphoric game, I would argue, in line with the analysis I presented in Chapter 5, that a game becomes metaphoric when it becomes a source domain in a metaphor, and therefore an object of thought. Although metaphor is primarily a matter of thought, this thought can be represented through other media, such as images, the semiotic layer of games, language etc. But metaphor itself remains a matter of thought, and that is where it is most effective. Thus, thinking of politics in terms of football or *Pac-Man* is interesting, since it can open up new ways of thinking about one domain in terms of the other. Let us take the *Monty Python's Flying Circus* sketch "The Philosophers' Football Match" (1972) as an example. There, a team of German-speaking philosophers, including Leibniz, Kant, Wittgenstein, Nietzsche, and Heidegger, plays football against a team of Greek philosophers, including Plato, Aristotle, and Socrates. The sketch is presented in the form of football coverage on television. For most of the game time, the philosophers walk over the pitch lost in thought while the ball rests on the center spot. Only one minute before the game time is up does Archimedes have an idea (shouting "Eureka!") and play the ball to his teammates, who score the only, and, hence, the winning, goal of the match. Even though the game is played in an unconventional way, football is still football here. Clearly, philosophers can play football. It might look strange in the sketch. Still it is football. The notable element lies in the representational aspect of this sketch: what is interesting here is watching how it

would look like when it is played by dead philosophers and not to playing this. As such, this sketch also clearly favors the audience point of view. From this perspective, the sketch remarkably points at the metaphor PHILOSOPHY IS FOOTBALL. As in the case of *Tax Invaders,* one can here assume that the original idea for this sketch could have been the thought of how philosophy could be understood in terms of football – a thought which, therefore, constitutes a metaphor. In the light of the argument of a literalization or de-metaphorization of metaphors when brought into praxis, as in the case of the resulting football game itself, it remains to be said that the metaphorical struggle of philosophy would then be embodied in the physical struggle of football, and thereby re-literalized or de-metaphorized.

What is interesting in terms of game and play here is the play of thought which consists of understanding philosophy in terms of football. Both domains can clearly be connected via the domain of STRUGGLE. Assuming PHILOSOPHY is, to a large degree, about arguing for or against the arguments of others, the metaphor at play here is clearly ARGUMENT IS STRUGGLE. Being based on war metaphors, in FOOTBALL we also encounter another instance of STRUGGLE.

Concerning cognitive metaphor theory and the theory of primary metaphor, one could assume that bodily and spatial experiences which become associated with concepts in childhood development actually stem from physical gameplay experiences themselves. Children of preschool age primarily experience their world through that which, from an adult perspective, is considered play, even if the children themselves might not make this distinction. If this is the case, then all the concepts of our metaphorical system are in some way also rooted in play.

Consider the fact that computer games are particularly popular in Western and Asian cultures, in which children learn how to use a computer at a very young age. The question resulting from this observation with regard to cognitive metaphor theory would be to what extent domains such as SPACE and STRUGGLE, together with gestalts such as FORCES, are actually primarily experienced as mediated through computer games. In which ways, then, are the experiences of computer game play relevant for the establishment of conceptual systems of thought?

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