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Disruptive Conflicts in Computopic Space

Japanese Sf Videogames as Sources of Otherness and Radical Political Imagination

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Abbreviations

AC  Armored Core
Successful mecha videogame series created by From Software.

A.C.E.  Another Century’s Episode
Videogame series created by From Software since 2005.

A.I.  Artificial Intelligence
Human-designed intelligent behaviour of machines and software; also refers to the field of study in computer science.

A.T.  Absolute Terror
A variable value all characters in the game Shinseiki Evangelion 2 feature. Indicates the player’s social success and psychological well-being.

CT  Chrono Trigger
Rpg about time travel created by Squaresoft in 1995.

designer  Commonly refers to the person in charge of designing and developing a videogame. In this thesis, the term is short for all persons involved in the creative process from which a videogame software results.

EDF  The Chikyūbōeigun [The Earth Defense Force]
Low-budget videogame series about an invasion on Earth, created by SANDLOT in 2003, released as part of the Simple 2000 series by D3 Publisher.

Eva2  Shinseki Evangelion 2 [Neon Genesis Evangelion 2]
Videogame created by AlfaSystem in collaboration with the adapted anime’s director Anno Hideaki. Released in 2003 by Bandai.

I.M.  Intelligent Material
Term used for the multiple choice interaction system in Eva2.

mds  multiple death scenes
Term referring to scenes in Shadow of Memories, which can only be reached by deliberately dying multiple times whilst preventing death is possible.
mecha English import from the Japanese term *meka*, which is itself an abbreviation of the English term “mechanical.” In Japan, mecha is widely used for machines and robots. In the context of this thesis, the more specific use of the term in popular culture, where it refers to the science fictional device of robots

*MGS* *Metal Gear Solid*
Videogame series created and released by Konami since 1998. Leading creative force behind the series is Kojima Hideo.

npc non-player character
Character(s) controlled by the computer.

PSX *Playstation*
Game console developed by Sony, release in 1994.

PS2 *Playstation 2*
Successor to the *Playstation*, released in 2000.

PS3 *Playstation 3*
At the time of writing (September 2013) Sony’s most recent stationary console, released in 2006. The *Playstation 4* is announced for the end of this year 2013.

rpg role-playing game
Games in which the player assumes the role of a character in a fictional world, mostly following a pre-defined story. In this thesis, the term solely refers to the videogame genre.

SD super deformed
Refers to a style of representing anime and game robots in disproportional size, with a small body and relatively big head.

sf science fiction
Literary genre, here understood as the literary genre of plausible alternatives.

SoM *Shadow of Memories*
Videogame created and released by Konami in 2001.

VS. *Gundam VS. series*
Third-person fighting game subseries of the *Gundam* franchise, emphasizing an arcade experience.
Conventions

In this thesis, I follow the recommendations the Chicago Manual of Style (16th edition) as closely as possible. References are given in author-date fashion. Subsequent citations of the same source refer to the page number only. In the case of the quickly changing online encyclopaedias and other online sources without author, I provide the name of the encyclopaedia or website and the year of access in the text. A detailed record of access dates and URLs for all online sources can be found in the list of sources. Videogames are given with (year of publication) in the text, and appear with information about creator, publisher and product code in the list of sources. Where necessary, I have added a brief footnote with background information to specific games at the beginning of the respective analysis. Where I refer to series or subseries in the analysis, I have added a footnote with a list of all individual titles played for the analysis to the first mentioning. The video examples referred to in the analysis can be found on the attached DVD.

Passages I translated to English are marked as such. Where I believed the original phrasing to be informative, it is added in [square brackets]. Japanese is transcribed following the modified Hepburn system. In the text, Japanese names are given in the order of surname + first name. Where videogames or other sources offer translated versions, I have omitted the romanized version of the original title. For example, although some titles of the series Biohazard [Resident Evil] are originally given in Japanese katakana, I have omitted the romanized spelling baiohazādo, because the series itself offers both spellings in most of its games. However, where the original does not offer an English title version itself, I have romanized the title and, where necessary, added an English translation or, where available, a reference to the English version in [square brackets].

I have not made any emphasizing alterations to any of the passages or phrases quoted. In my own text, book, videogame, and videogame franchise titles, as well as foreign terms are italicized. In order to distinguish my own emphases clearly from the former, they are set in bold letters. Phrases and words used with reservation are enclosed in ‘single quotation marks,’ whereas phrases or terms referring to another author are always enclosed in “double quotation marks.”
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1 Introduction

What makes man a political being is his faculty of action; it enables him to get together with his peers, to act in concert, and to reach out for goals and enterprises that would never enter his mind, let alone the desire of his heart, had he not been given this gift—to embark on something new. (Arendt 1970, 82)

Are we political beings? Today, to embark on something politically new, something geared towards fundamental change in our common reality, is a task fraught with difficulty. To be sure, politics have not vanished from society and decisions for social, cultural, economic and foreign policies are still made every day. It would be wrong to deny that the capitalist system can be—and has been—politically influenced in innovative ways to improve peoples’ conditions. However, in most cases, these decisions merely seek to adjust the existing system rather than aiming for change and alternatives. Despite its contradictions and the problems it causes, capitalism, often in combination with neoliberal philosophy, is increasingly global, pervading more and more into society and culture. The recent tendency in universities in Europe and elsewhere exemplifies this trend towards economizing, standardizing, and evaluating everything and anything. Yet, knowing of these problems and experiencing them first-hand is one thing, conceiving different paths to follow and pursuing them, another.

In my personal experience the most striking recent example of the force and persistence with which the current social, economic and political system dominates almost all areas and layers of society is the development in Japan since the tragic events of March 11, 2011. The horrible nuclear accident in Fukushima not only confronted Japanese and other societies with an ongoing, uncontrollable man-made catastrophe, the harmful effects of which remain unpredictable to this day. The disaster also directly brought into the open the virulent problems of a post-war system strongly focused on economic profit. It confronted us with the almost inescapable totality of the current capitalist system’s reach, with its fierce competition, under which manpower and employment are as essential for individual survival as electric power and automated production are for the nation’s.

In stark contrast to the many creative grass-roots movements and alternative groups that emerged from the experience of the nuclear threat and have contributed
immensely to the political climate in Japan since, I cannot help but have the impression that the overall direction and more recent political developments have tended towards restoring the status quo. That this return was not motivated by an understandable individual desire to come back to some kind of everyday normality after weeks and months of uncertainty and threat, but justified with a necessity to restore economic competitiveness for the sake of society even at the risk of the lives of some members of society, demonstrates the vigour and vitality of the capitalist system even in severe crises, and the overall lack of viable alternatives.

Finding strategies against the currents of the contemporary system may, to a certain extent, be a question of individual creativity—and here, successful attempts are fortunately numerous. Yet, these successes are local and often temporary, and cannot solve our problems on the larger level of society, let alone on a global scale. What is more, there is reason to believe that the lack of alternatives is not an issue of individual creativity alone. Thinkers like Theodor Adorno, Paul Virilio, and Hannah Arendt have long observed that political thought and action are under increasing threat by schematization, acceleration, bureaucracy, and capitalism. Frederic Jameson (2007, 228) goes even further, claiming that the future is not an imaginary space for alternative scenarios any more, but neutralized in its potential for change: the unknown future becomes “a new area for investment and for colonization by capitalism.” Like Jameson, Japanese philosopher Karatani Kōjin (2012, 11) claims that we not only lack viable alternatives, but have lost the capacity to imagine anything outside the current system.

Arendt’s introductory quote hints at the importance of novel goals and ideas for political action. Yet, if we are increasingly unable to imagine such alternatives, how can they be pursued? In my opinion, any system that is without alternative is deeply unsettling, regardless of its content. Against this background, the underlying question for this project is: **can we imagine a society or world radically different from ours?** Although thinking about real alternatives to capitalism is often either branded as driven by traditional ideologies, or regarded as romantically naïve, idealist, pessimistic or oppressive, my approach is guided by the belief that the “colonization of the future” is not yet total. Turning to an innovative market and a politically acclaimed genre, this explorative project asks **if Japanese science fiction videogames and their expressive possibilities are a potential source of inspiration and stimuli for imagining radical alternatives to the status quo and the known, which can serve as the basis for political action.**
As a relatively recent field of popular culture, videogames have rapidly developed into a sophisticated technological medium of artistic expression and interactive play (Tavinor 2009). Along with the rise of online networks, they have developed vast and complex social worlds visited and inhabited by millions of users. On the one hand, this has led to an ongoing discussion about their harmful effects on children, particularly in the context of violence and addiction. On the other hand, they have received attention as new tools for education, marketing, political communication, activism and advocacy, and for social and cultural simulation in general, whether framed as Serious Games (see for example Fujimoto 2007) or Persuasive Games (Bogost 2006a, 2007). On a wider scale, Gamification (see for example Inoue 2012) emphasizes the activating and motivating potentials of playful and goal-directed scenarios, advocating the deployment of game-like structures in all areas of society in general, and as new promising path for business models and consumer products in particular. From a similar perspective, Jane McGonigal (2012) discusses the ways in which videogames, from small-scale casual cellphone apps to epic massive multiplayer online worlds, can fix or at least enhance our broken reality by offering us more activating, fun, rewarding, socially rich, and fulfilling challenges than our boring everyday lives.

The diversity of subjects mentioned above gives an idea of the range of academic disciplines and theoretical perspectives from which videogames are studied today. Many inspiring analyses have emphasized the richness and distinct quality of the experience videogames offer. However, as far as I can see, their ideational content and the contribution this experience can make to our imagination of political alternatives remains a minor concern in most discussions in game studies, addressed only in occasional examinations of individual titles. Even fewer attempts have been made from the perspective of political science and political philosophy (but see Frasca 2004, Galloway 2006, and in parts Bogost 2007 for stimulating exceptions). The following thesis aims to contribute to such attempts.

In order to contain the complexity of the issue, I focus on the single-player experience. This limitation to individual, private gameplay faces a severe criticism from the start. Hannah Arendt (1998, 58), for example, positions the private sphere in direct, fatal opposition to the properly political public sphere, arguing that in mass society,

men have become entirely private, that is, they have been deprived of seeing and hearing others, of being seen and being heard by them. They
are all imprisoned in the subjectivity of their own singular experience, which does not cease to be singular if the same experience is multiplied innumerable times. The end of the common world has come when it is seen only under one aspect and is permitted to present itself in only one perspective.

A similar warning comes from Paul Virilio (1999, no pn). In a discussion with Jérôme Sans, he predicts that the future will be populated by the “the self-sufficient man who, with the help of technology, no longer needs to reach out to others because others come to him. […] The future lies in cosmic solitude.” In addition, Virilio criticizes virtual play and videogames for replacing the stimuli of the imagination with mechanical instruments and repetition. In his view, the videogame player is “hurried by the machine.” In games, “travelers are traveled. Dreamers are dreamed. They are no longer free to move about, they are traveled by the program. They are no longer free to dream, they are dreamed by the program.”

Although I don't agree with Virilio's evaluation of videogames, I believe Arendt's implicit and Virilio's explicit critique of the private, pre-defined character of videogame play must be taken seriously. Like Karatani, both authors fear a fading and perhaps even the end of the imagination and, more broadly speaking, the possibility of political action and political reason as such. However, while their view suggests that videogames are part of the problem rather than a potential solution, this thesis shows that the single-player experience of videogames and their expressive potentials can confront us with novel, politically stimulating experiences.

This task involves three steps or parts. In part I, I develop a theoretical and methodological perspective on videogames as ideational spaces. Following Jameson and Adorno, I argue that the kind of radical political imagination necessary today can be stimulated by disruptive conflicts between expressive elements of a medium. Based on an understanding of games as rule-based reifications of ideal play, I develop an understanding of videogames as ideational or computopic spaces, defined as the sum of all rules in the software. The consecutive sections qualify the computopic space as materially vague and contingent, partial and transformative in its representation, enacted by the player and performed by the computer. As such, any computopic space can be regarded as a universe which hosts a potentially unlimited number of worlds, one of which materializes based on player action and computer performance in each gameplay session. This makes
it dynamic, emergent and partly unimagined by its designer. In its expression, it combines multiple elements and is detached from our physical reality by virtue of its virtual, arbitrary semantics and its internal flexibility, which mark these worlds as an always already Other. In its active quality, the computopic space is experiential and emotional.

By way of access, chapter 3 outlines an empirical approach to the computopic space. Drawing on methodological discussions in qualitative research and ethnography, I propose a practical solution to the contingency and vastness of computopic universes, focusing on repeated, playfully-invading explorations, enriched by additional sources like walkthroughs and fan descriptions. I explain how these methods can be realized technically and how they are combined in the analytic process. In addition, I argue that the importance of transparency and openness, along with the distinctness of my material, demand for alternative modes of presenting the results. In response, I experiment with embedding video examples in the presentation of my results.

In part II, I turn to the field of Japanese videogames in search for concrete examples. Although recently declining, Japanese developments have long been a leading and influential source of innovation and creativity in global videogame culture, both in terms of hard- and software, making them a particularly promising field for disruptive conflicts. In order to deal with the vast variety and diversity of this field in the context of this explorative thesis, I propose to begin the inquiry in games aligned with the genre of science fiction, which is attested an explicitly political character by many critical theorists and literary critics. Adapting the characteristics of science fiction to the context of videogames, I pre-select a range of titles in a review of recent statistical data on videogame sales, further refined as to comply with the methodological and methodical constraints. Based on this pre-selection in chapter 4, I discuss several major tendencies in the field of Japanese sf games in chapter 5. Given the dominance of robots, so-called mecha, in Japanese sf games, I explore the ways in which they are deployed in dystopic scenarios.

The findings of chapter 5 serve as a guideline for the detailed analysis of disruptive conflicts in part III, where I focus on the sf tropes of time travel, the alien, and war technology. While the strategies vary, all chapters draw on thematically related works of recent political philosophers and discuss the ways in which the combined expressive elements of selected titles present the issue at hand in disruptive conflicts capable of stimulating our radical imagination.
With this approach, I aim to show that videogames can be put into dialogue with radical thinkers such as Paul Virilio, Paul Ricoeur, Jacques Rancière, Hannah Arendt, or Giorgio Agamben in fruitful ways. The analysis shows that videogames can contribute to intellectual inquiries in various ways, stimulate our radical imagination, and offer sites of critique. This thesis aims to contribute to a further theoretical, methodological, and practical interaction between academic and pop-cultural forms of ideational expression, and to a critical perspective on videogame, which emphasizes their potential and, where necessary, holds them accountable for their lack of political creativity.
Part I  Framework
2 Theory

The purpose of establishing these fictional spaces is less to increase the trade in conventional wisdom than to expand our perception of fictional possibilities. Fictional colonies established as bases for traveling back and forth to the actual world must therefore be distinguished from fictional settlements founded for the sake of adventure and investigation, after burning the ships. (Pavel 1986, 84)

In this chapter, I formulate a set of demands on how videogames can stimulate our political imagination and develop a perspective on them as contingent, action-based, and rule-defined spaces of expression. I discuss their distinct qualities as spaces which combine features of digital, audio-visual and computer-based media and games, with their focus on playful action. Given the ambiguity and diversity of play, games, and videogames, I do not aim to define what a videogame is, but instead to offer a consistent framework for analyzing games from a political-philosophical perspective interested in their contribution to novel, radical imagination.

2.1 Radical Political Imagination and Disruptive Conflicts

In this first section, I aim to develop a sense of the term radical political imagination and its conditions. Broadly speaking, imagination is “a faculty that enables us to envision that reality can be otherwise” (Carroll 1998, 79). In this general sense, the quality of the difference to a given empirical reality is not specified. For example, I could imagine to be at home in bed rather than trying to stay awake in front of my office computer screen, or use my magic powers to fight evil dragons in a fantasy world. However, a more specific understanding of such difference is necessary when imagination is, as Hannah Arendt (1970, 81) proposes, regarded as one of the “preliminary conditions for political action,” as such allowing us to direct action towards a desired result that is different than the status quo.

Raymond Geuss (2010, ix-x) emphasizes the importance of the imagination in all forms of politics, claiming that “[a]ny organized attempt at improvement of our situation will include some at least minimal exercise of the imagination, in that it will require agents to think of ways in which their environment or modes of acting could be different from what they are now.” Noël Carroll (1998, 79) establishes a
similar link, arguing that through the exercise of the imagination we can envision alternatives to what is, especially better alternatives to what is from a moral or a political point of view. Understood this way, the imagination is what makes change—changes in moral and political circumstances—possible. The imagination is what enables us to conceive of a better world and, therefore, is a pre-condition for changing it morally and politically.

For the purpose of this thesis, the term “political imagination” specifies the general faculty towards the visions of political alternatives to our ‘empirical reality’—visions of different, novel conditions, structures, practices, and environments for life in community, which serve as the basis for political action.

Claiming that we lack imagination or even political imagination today would be a mistake. Neither do I believe that our contemporary media culture cannot offer vast arrays of products, works and ways that stimulate our imagination and phantasy. In this, I agree with Carroll (1998, 15-109), who refutes generalizing instances of philosophical resistance to “mass art” on the grounds that it renders the audience passive. Defining mass art by its intent to be easily accessible to a global mass audience on the one hand, and its technological production and distribution process on the other, he argues that such art stimulates a variety of activities among its audiences, including imaginative and reflective powers (82-84). “[I]f we are to understand as examples of the play of the imagination such spectatorial activities as interpreting dramatic situations and metaphors, as well as inferring, mass art does afford the opportunity to exercise the imagination” (82).

However, such imagination is not radical in the sense I use here in this dissertation. Examining the ways in which mass art features emotions, morality, and ideology, Carroll concludes his analysis by stating that in the attempt to grant easy and wide access, “mass art addresses widely distributed emotions, invokes pervasive moral principles and concepts, and exploits ideological commonplaces

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1 Throughout this thesis, the phrase ‘empirical reality’ is used to refer to the world as we experience and know it from scientific studies as much as from our everyday life. As such, it always entails a subjective factor and is not meant to point to the existence of an entirely objective truth.

2 In detail, Carroll’s (1998, 196) definition reads: “X is a mass artwork if and only if 1. X is a multiple instance or type artwork, 2. produced and distributed by a mass technology, 3. which artwork is intentionally designed to gravitate in its structural choices (for example, its narrative forms, symbolism, intended affect, and even its content) towards those choices that promise accessibility with minimum effort, virtually on first contact, for the largest number of untutored (or relatively untutored) audiences.”
because it is predicated on engaging mass audiences. Were mass art to address uncommon emotions, morals, and political convictions, it would not secure mass uptake” (413). This conclusion may be in line with Carroll’s broad conception of imagination and his emphasis on the contrast between mass art and avant-garde art (207-209, 242-244). However, it highlights the limitations of such broad understanding of the imagination. For if imagination merely points us to situations different from our own but not entirely unfamiliar or “uncommon”—to use Carroll’s carefully picked term—it can hardly be expected to aim for the radical alternatives and drastic change on a systematic level.

Geuss (2010, 68) claims that “[i]maginary constructs can under some circumstances have a force capable of creating realities that go far beyond the structuration of merely subjective spheres of action.” The question is, what these circumstances are and in what ways videogames can create, aid or amplify them. According to Susan Buck-Morss (2002, 62-63),

> the power of any cultural object to arrest the flow of history, and to open up time for alternative visions, varies with history’s changing course. […] What counts is that the aesthetic experience teach us something new about our world, that it shock us out of moral complacency and political resignation, and that it take us to task for the overwhelming lack of social imagination that characterizes so much of cultural production in all its forms.

Along with historical factors, she emphasizes novelty, shock and critique as central factors for stimulating radical imagination. These factors are widely discussed in literary theory, in particular where the inquiry focuses on literary “universes contaminated by radical otherness” (Pavel 1986, 106). Most explicitly, this is the case in science fiction (hereafter sf) and utopian studies and their respective literary objects, which display a relation with all three factors. Pioneer sf theorist Darko Suvin (1979, 7-8, italics in original), for example, defines sf as “a literary genre whose necessary and sufficient conditions are the presence and interaction of estrangement and cognition, and whose main formal device is an imaginative framework alternative to the author’s empirical environment.” He claims that “SF is distinguished by the narrative dominance or hegemony of a fictional ‘novum’ (novelty, innovation) validated by cognitive logic” (63, italics in original). In other words, sf deploys a novum to create an alternative environment geared towards estranging the reader cognitively.
Frederic Jameson (2007, xiv) identifies a similar mechanism at the heart of the utopian genre—which he regards as a socio-economic sub-genre of sf. In his view, utopian thought experiments are “a critical and analytical method” that answers “the universal ideological conviction that no alternative is possible, that there is no alternative to the system” (230-232). Presenting us with alternative, unfamiliar places of Otherness, utopian narratives distance us from our empirical reality and are political through their “disruptive” effect on our common perception and our resignation (231).

Common to these descriptions is a sense that some kind of novelty or Otherness that distances us from our own empirical reality can have an estranging or disruptive effect. However, specifying these two aspects in the context of radical political imagination is a difficult task. Not only is it unclear if such disruption can amount to more than a critical review of the already existing situation and the awareness of one’s own “complacency,” it also remains questionable if total Otherness is possible and what it would look like. Jameson (2007) is well-aware of the problem this paradoxical question hints at. On the one hand, he claims that the possibility of a radical Other, such as, for example, a new colour “is allegorical of the possibility of imagining a whole new social world” (120). On the other hand, he remains sceptical of the possibility of such genuine Otherness, concluding that even the most radical attempts at imagining otherness in SF are nothing but mirrors of the self and projections of our own situation (111, 211). According to Jameson, the utopian genre can only solve this problem by means of its formal ability to draw together diverse existing elements to generate new contradictions and to imagine the other by shifting the known (134).

This notion of productive contradictions can also be found in the writings of Theodor W. Adorno, who remains one of the most provocative thinkers of the potentials and dangers of works of art and culture, despite his tendency towards elitisms and his arguably arrogant and sometimes apparently ignorant, generalizing dismissal of mass culture, jazz music, and especially “the other” of extra-
European art (see Geuss 1998, 310-311). In his insightful discussion of Adorno’s understanding of art, Geuss observes that Adorno emphasized the importance of art with its potential for internal criticism and its ability to produce something new (Geuss 1998, 298-303), against the tendency of the Enlightenment rationality towards universal instrumental reason and its repressive homogenization, which he rejected (299, 309).

Geuss highlights the importance of negativity and critique in Adorno’s thought, as well as the influence that, on the one hand, Kant and Hegel play in his writings, and, on the other hand, his experience of Nazi Germany had on him (306). For Adorno, he claims,

[...]

At the same time, Geuss reminds us that Adorno also laboured to “defend what he calls ‘the non-identical’: the unique, the qualitatively specific, the unrepeatable, the ‘other’, that which cannot simply be seen as just one more indistinguishable specimen of a general category, interchangeable ad libitum with any other specimen. This ‘other’ is that which slips through the network of our concepts and theories” (310). It is here that I believe one can find traces of a more prospective project in Adorno’s writing. In his emphasis on critique, Adorno not only displays a deep concern for society, he also formulates demands on culture and art to realize their political potential. It is this aspect, which might contribute substance to the vague concepts of Otherness and disruption mentioned above.

Despite his pessimism, Adorno (2001b, 106) believed in a free society of “autonomous, independent individuals who judge and decide consciously for themselves.” His insistence on ideas and thought as the decisive factors in social change is most explicitly expressed in his statement that “[t]he Utopian impulse in thinking is all the stronger, the less it objectifies itself as Utopia – a further form
of regression – whereby it sabotages its own realization. Open thinking points beyond itself” (Adorno 2001e, 202). While cautioning against the threat reification poses to thought, Adorno (2001c, 193) also stresses the possibility of novelty and alternative, “new” thoughts or productivity as “the ability to bring forth something that was not already there.” In a way, this potential to invite productive thought may be regarded as his standard for judging art and culture—by which most mass cultural products of his time failed to be genuine. It also specifies the demands on disruption beyond mere negativity or criticism, as a shock that stimulates our imagination.

In line with his rejection of instrumental reason, Adorno insisted on the importance of individual “Phantasie” for novelty. Translated as “imagination” into English (see Adorno 2001c, 192), Phantasie is a faculty which “might of its own accord gather together the discrete elements of the real into its truth” (2001f, 63). With this concept, Adorno not only opposes purely schematized, “rational” thought, but also his critique of a unimaginative “spirit (Geist) of a science which is no longer spirit” (Adorno 2001c, 192). His emphasis on “a certain unruliness of mind which was incompatible with the efficient [rationelle (Adorno 1977, 648)] division of human life” (Adorno 2001c, 190), or the fact that “[e]ven fooling around need not be crass, and can be enjoyed as a blessed release from the throes of self-control” (192), point to a broad but decisively political understanding of Phantasie or imagination as a faculty opposed to the systematic status quo. Specifically, he regards Phantasie as an opposing force to the culture of administration:

For that which is administrated, administration is an external affair by which it is subsumed rather than comprehended. This is precisely the essence of administrated rationality itself, which does nothing but order and cover over. In the chapter on amphiboly in the Critique of Pure Reason, Kant […] denied rationality the ability of cognition of the interior of things. Aporia prevails between the absolute purpose of the cultural and the absolute rationality of administration, which is nothing but the rationality of scientific ratio. (Adorno 2001a, 112-113)

In this sense, Phantasie refers to a way of accessing the inner logic of a work that includes a “sensuous moment” beyond “measurement, comparison, and assessment of physical phenomena” (Adorno 2001f, 87). As a counter-concept against Enlightenment rationality, Phantasie is not limited to “scientific rationality” and rejects purely schematized imagination, although not entirely detached from cognition.
Most importantly, Adorno believes that culture and art can stimulate and trigger *Phantasie* by confronting us with internal conflicts, which, neither solved within the work nor obvious, confront the individual with a new situation, demanding for independent thought and autonomous judgments. Claiming that such conflicts are only possible in “wholeness,” which is another way of saying internally, he rejects distinction in general, be it between theory and practice, mass culture and high art, work and free time, or between society and art/culture, as a regressive means (of capitalist society in particular) to avoid internal contradictions and conflicts and to ultimately incorporate the now detached realms into its mechanisms of production for a consumer society.4 Against this background, I propose the following working hypothesis for my project:

*videogames can be disruptive of our common beliefs and experiences, thus stimulating our radical political imagination, if they succeed in confronting us with a contradictory situation, the novelty of which requires us to think about solutions independently and judge autonomously.*

Interestingly, Ian Bogost (2007) mentions a similar notion of disruption in his analysis of *Persuasive Games*. Drawing on Alain Badiou’s idea of the event “which offers a chance to disrupt the state of a situation and reinvent it, wholly anew, under a different organizing logic” (58), he argues that a videogame and its procedural rhetoric “persuades when it helps discern the evental site of a situation—the place where current practice breaks down.” (333) However, while claiming that “procedural rhetorics make claims about the structure of a situation, in the hopes of inspiring a disruptive event,” Bogost remains vague about the status and potentials of such events in games, because he thinks of them as representations of social and cultural reality: “Persuasive games expose the logic of situations in an attempt

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4 In “How to look at Television,” Adorno (2001d, 159), for example, states that “the present rigid division of art into autonomous and commercial aspects is itself largely a function of commercialization.” More generally, this claim appears in his speech on *Free Time*, where he argues that in modernity, free time is being detached from work life deliberately, in order to make it a target for commodification. Such practice of categorizing and dividing is, in his view, related to the dominant current in society: “the prevalent ethos [*herrscher Geist* (Adorno 1977, 648)] is suspicious of anything which is miscellaneous, or heterogeneous, of anything which has not clearly and unambiguously been assigned to its place” (Adorno 2001c, 190) Likewise, his ideal of art is not that of high art, but rather of a field of art that encompasses various forms and contents, because only by containing them, does it allow them to contradict each other. Claiming that art can only be critical of society if it is part of society, not detached from it, Adorno (2001a, 116-117) agrees with Paul Valéry that true art can only exist where it abandons its ambition to be art.
to draw player’s attention to an evental site and encourage them to problematize
the situation. Videogames themselves cannot produce events; they are, after all,
representations” (331-332). In line with his focus on games as tools for political
communication, education, and advertisement, he emphasizes that persuasive
games use “procedural rhetoric to support or challenge our understanding of the
way things in the world do or should work” (59).

Whereas Bogost thus seems to regard videogames as representative structures,
granting them a critical potential towards a situation without questioning the
status of their author and their representative (simulating) relation to the empirical
reality, this thesis asks if disruptive conflicts with that reality can be possible
as internal contradiction within a work. The question, in other words, is, if the
disruptive conflicts can produce expressive novelty or Otherness. I hesitate to
embrace Jameson’s claim about the impossibility of imagining absolute Otherness—
interestingly, he himself is rather evasive in this context. Instead, my hypothesis
entails the question, whether the conflicts that result from reconfigurations of
(existing) elements—here I agree with Jameson—deserve to be called radical
Otherness. This question has to be answered in the analysis. At least on a very
general level, I believe that a search for political alternatives and Otherness has
to start from a position best expressed by Thomas Nagel (1979, 171), who argues
that “to deny the reality or logical significance of what we can never describe
or understand is the crudest form of cognitive dissonance.” This is why I have
capitalized [O]therness. At the same time, Nagel’s remark conveys a considerable
portion of my scepticism about the possibility of identifying and describing such
Otherness.

2.2 The Otherness of Reified Play

With these general conditions for radical political imagination in mind, I would
like to proceed to discuss the structural potentials and limitations videogames have
in this context. By now, the study of play, games, and videogames can look back
on a great variety of stimulating contributions made in multiple fields and from
diverse perspectives. However, while the majority of discussions focuses on ques-
tions of the nature and impact of play, game design, or player engagements, theo-
retical considerations of games and videogames as spaces of Otherness and radical
imagination are rather few in number.
Theorists who discuss the status of ideas in games tend to stress their relation to our empirical reality. Ian Bogost, for example, regards games as simulations. In *Unit Operations*, he argues that “more than merely seeking to model the function of the material world, simulations also mark a meeting place between unit-based rules and subjective experiences” (Bogost 2006b, 94). He defines the concept of simulation as “*the gap between the rule-based representation of a source system and a user’s subjectivity*” (107). Importantly, this definition recognizes the influence of subjective choices as well as ideological influences, thereby providing an interesting perspective on videogame play. However, in his examples and in his framing of the idea, Bogost’s notion of the source system focuses on the existing and its mimesis. This tendency is even stronger in his later book *Persuasive Games* (Bogost 2007).

In his inspiring attempt to situate videogames in a philosophical discourse on art, Grant Tavinor (2009) develops an approach to videogames as interactive fictions. However, his focus on the quality of the “representational beauty” of videogame worlds rather than its content, and where the latter is focused, the discussion frequently tends towards an emphasis on adequate, realistic representation. This is for example the case in his discussion of the rich fictional world of *Grand Theft Auto IV*, of which Tavinor claims that its “interest in creating a more realistic and detailed graphical fictional world – in essence depicting a dynamic modern city in a virtual way – is also one of the reasons that games like *Grand Theft Auto IV* should be considered art” (68).

In order to approach the specificity of Otherness in videogames from a different direction, I would like to start with a brief discussion of their relation to play. In many discussions of play, the concept is defined by its separation from ordinary life. Heideggerian philosopher Eugen Fink (1960, 1968) regards it not only as detached, but as opposed to the ordinary. Whereas everyday life is dominated by the “futuristic mode of being,” in which any activity is directed towards a “telos” or “final goal” in the future, play “interrupts the continuity and purposive structure of our lives” (Fink, Saine, and Saine 1968, 20-22). For Fink and his co-authors Ute and Thomas Saine, play offers a radical alternative to the ordinary, because it has only immanent purpose and is “not subordinate to the ultimate purpose served by all

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5 Johan Huizinga (1970, 47) defines play as “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.’” Roger Caillois (1961, 9-10), uses the terms free, separate, uncertain, unproductive, governed by rules, and make-believe to describe play.
other human activity” (21). Given his ontological quest and his emphasis on play as an opposing force, it may seem surprising that he nevertheless qualifies it as “finite creativity in the magic dimension of illusion” (28).

This remark, I believe, can be read as an attempt to bridge the gap between play as theoretically conceptualized ontological entity, and playing as human activity. In other words, Fink, Saine and Saine acknowledge the ideal character of play and concede that it can only be realized illusively. Hans-Georg Gadamer (2004, 102-103) expresses this illusive quality with regards to “playing” more explicitly: “The player himself knows that play is only play and that it exists in a world determined by the seriousness of purposes.” He thereby points to the commitment to the illusion of play required of the players. In a similar thrust, Huizinga ([1949] 1970, 40) claims that “[t]he play-mood is labile in its very nature. At any moment, ‘ordinary life’ may reassert its rights either by an impact from without, which interrupts the game, or by an offence against the rules, or else from within, by a collapse of the play spirit, a sobering, a disenchantment.” These statements underline that play depends on a social contract between the players, who agree on upholding its illusion.6

Gadamer (2004) discusses this necessary transformation of ideal play into a human activity in more detail. He understands play in general as a “to-and-fro movement that is not tied to any goal that would bring it to an end,” and regards human play as a particular case (104). Human play, he claims, always plays “something”, meaning that it is necessarily structured by rules and orders as “the way the field of the game is filled” (107). Whereas Fink, Saine and Saine (1968, 21) regard play as a mode of human being which rejects the purposive structure of the ordinary and is not afraid of the “profound uncertainty,” Gadamer (2004, 107) argues that one cannot abandon the ordinary and is even in his play, still someone who comports himself, even if the proper essence of the game consists in his disburdening himself of the tension he feels in his purposive comportment. […] Every game presents the man who plays it with a task. He cannot enjoy the freedom of playing

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6 This is why Huizinga (1970, 30) makes a telling distinction between the “false player” or “cheat,” who “pretends to be playing the game and, on the face of it, still acknowledges the magic circle [that separates play from the ordinary, mer],” and the “spoil-sport,” who “trespasses against the rules or ignores them,” thus shattering the play-world itself. “By withdrawing from the game he reveals the relativity and fragility of the play-world in which he had temporarily shut himself with others. He robs play of its illusion” and “threatens the existence of the play-community.” He claims that the play society is much more “lenient” with the false player than with the spoil-sport, because the former disguises his cheating.
himself out without transforming the aims of his purposive behavior into mere tasks of the game.

For him “the space in which the game’s movement takes place is not simply the open space in which one ‘plays oneself out,’ but one that is specially marked out and reserved for the movement of the game. […] Setting of the playing field […] sets off the sphere of play as a closed world, one without transition and mediation to the world of aims” (107). In this sense, human play can only exist in a structured form with rules, orders and tasks or “make-believe goals” (108). Huizinga (1970, 29) suggests a similar understanding when he refers to play spaces as “temporary worlds within the ordinary world, dedicated to the performance of an act apart.”

These observations suggest the importance of rules and goals, which have to be established intentionally in order to separate a space for play from the ordinary. This is not to say that such separate spaces cannot, in Roger Caillois’ (1961, 13) terms, range in their character on a continuum between the convention-oriented “ludus” and the uncontrolled “paidia.” However, I do follow Gadamer insofar as I believe that uncontrolled play (paidia) in its ideal form can only exist in brief instances. This to be another way of saying that in human conduct, ideal play can only exist in its reified form as game, and must be consciously upheld by the players.

In its reification, the temporary game world distances the action from the ordinary but never manages to detach it completely. In Spiel als Weltsymbol, Fink

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7 In the German version this sentence emphasizes the closure necessary for play even more explicitly, referring to the act as “self-contained” or “finite” [in sich abgeschlossen] (Huizinga [1939] 2009, 19).

8 In a similar way, Juul (2005, 28) argues that “[p]lay is mostly taken to be a free-form activity, whereas game is a rule-based activity.” Game scholar Bo Kampman Walthé (2003, no pn) distinguishes play from games, arguing that “[p]lay is an open-ended territory in which make-believe and world-building are crucial factors. Games are confined areas that challenge the interpretation and optimizing of rules and tactics - not to mention time and space.”

9 Notably, most of the above-mentioned thinkers thought and published in languages which do not distinguish between play and games (German Spiel, French jeu, Dutch spel). This may have contributed to The Ambiguity of Play, of which Brian Sutton-Smith (1997, 214) shows that it majorly originates in the rhetoric of play in various fields of study. He states that “it is clear that verbalizations about a ludic experience are not the same as that experience” (216). By drawing on the distinction between game and play to reorder the complexity of play, I do not claim to solve the ambiguity and diversity of the term and its experience. Rather, this step is geared towards emphasizing the ideational quality of games as approximation of free play embedded in a social context, and their dependence on rules and player commitment.

10 The relation between the game or play space and the “ordinary” is widely and controversially discussed in game studies, where Huizinga’s metaphor of the “magic circle,” or rather, the separateness alluded to this term, has become a central element of disagreement among scholars. Mia Consalvo (2009, 415) for example argues that “There is No Magic Circle,” because “players never play a new game or fail to bring outside knowledge about games
(1960, 229, my translation) highlights this peculiar dual, illusory [Schein] character of the play space, observing that the “thing, with which the player plays, and the fellow players, with whom he enters the game [Spiel], are as real as he is, and belong to the same dimension of reality. Yet, in playing together, they enact [erspielen] an unreal play-world.” Although play is constituted by exclusion and interrupts the continuity of purposive action, it still requires real space and real time, “but the space and time in the play-world never continue seamlessly into the space and time surrounding it” (234, my translation).

How then, are games related to ideational Otherness and conflict? Huizinga (1970, 96) famously claims that play is a sphere in which “the antithetical and agonist basis of civilization is given from the start,” and suggests, in the words of Thomas S. Henricks (2010, 16), “that play was once an energizing, even culture-creating activity in the life of societies.” This conclusion invited substantial criticism for its limitation to agonistic games (see Caillois 1961, 3-4) and his rough historical analysis and methodology in general (see Henricks 2010, 16-17). Moreover, my claim that all human play is reified suggests that human creativity in play is limited to the extent to which it depends on predefined rule-structure. However, even if we do not follow Huizinga in his entirety, the widely shared definition of play as a space apart from the ordinary is strikingly similar to how Jameson (2007, 15-16) positions utopia as “imaginary enclave within real social space.” This enclave exists “like a foreign body within the social,” beyond its reach and therefore testifying to its political powerlessness, but nonetheless offering spaces where “new wish images of the social can be elaborated and experimented on.” Against this background, it is not surprising that the court of justice can serve as a historical example of

and gameplay into their gaming situations. [...] There is no innocent gaming.” In a keynote given at the second Under the Mask conference, Garry Crawford (2009, 9), points out that videogame players’ and, more general, “media audiences’ engagement with texts will often live on beyond the screen or page.” He urges the reader to “Forget the Magic Circle” and pay more attention to on the interrelation and interaction between games and their social contexts. Jesper Juul (2008, 59-60) shares this critique against detachedness and reminds us “that Huizinga describes the magic circle as one type of social space among others. […] The magic circle is a description of the salient differences between a game and its surrounding context. It does not imply that a game is completely distinguished from the context in which it is played.” Interestingly, he refers to the impact of social status on playing, arguing that games are not separate because “winning and losing may have social consequences, and players may play accordingly. The most obvious example is playing against a boss or playing against a child, in which case the player may decide that it is preferable to lose the game.” This example arguably offers a strong argument for my understanding of play as an ideal to which games aspire. Both players can only “play” the same game on equal terms if they shed their social backgrounds and balance the differences in their ability.
such an enclave for Jameson (15-16), and as one of the spaces of play for Huizinga (1970, 28-29), “in form and function play-grounds, [...] isolated, hedged round, hallowed, within which special rules obtain.”

For Jameson (2007, 5), the enclave and its distancing closure are necessary conditions for developing utopian and science fictional alternatives to the present from within. In a similar way, Phillip Wegner (2002) identifies utopia as a closure towards everyday experience and ideology on the one hand, and abstract theorizing on the other. Applying Henri Lefebvre’s tripartite model of space\(^\text{11}\), Wegner claims that narrative utopia derive their critical force from their character as conceived or “pretheoretical” spaces. They occupy “a middle ground between the phenomenological concreteness of the literary aesthetic and the abstract systematicity of the theoretical,” that is between the representational practices of literature that expresses lived experience, and those practices of theory that attempt to perceive these experiences in an abstract, systematic fashion (xviii). Due to position between these poles, “the displaced or neutral world of the utopia [becomes] a place wherein these [social and cultural; mer] contradictions do not come to a resolution but instead are allowed to play against one another” (37).

\[W\]hile crucial aspects of a newly emergent social reality are present in the utopian figure, the relationship between these elements, dispersed as they are throughout the text, cannot yet be articulated. That is, the utopia presents a narrative picture of history-in-formation rather than the theoretical description of a fully formed historical situation. (38)

In other words, Wegner claims that ensembles or patchworks of existing elements can open spaces neither found in our empirical reality, nor accessible to theoretical summary, which have the potential to point our thinking to new directions. Importantly, he emphasizes the contradictory nature of these patchworks, thus supporting my earlier emphasis on the conflict in Adorno’s writing as a specifically powerful and stimulating structure of Otherness. This is why Wegner (xx) can

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\(^{11}\) Lefebvre (1991, 38-40) distinguishes three interrelated, but not necessarily coherent, dimensions of the social production of space, namely “spatial practice,” which “propounds and presupposes” social space dialectically; “representations of space” or “conceptualized space,” the space of scientists who “identify what is lived and what is perceived with what is conceived;” and “representational space,” which is the space as directly lived or directly described. Corresponding to these are different modes of bodily engagement, namely perceiving of social practice, conceiving or thinking of representations of space, and living of lived space. According to Wegner (2002, 14), the middle terms of conceived representations of space “point toward what we [...] conventionally think of as ‘space’ proper, mediating between and drawing all three of the levels together into a coherent ensemble.”
write that “[b]y inserting something heretofore unknown in the world […] the narrative utopia generates the cognitive space around which new kinds of lived experience and theoretical perceptions form.”

It is tempting to argue that, in the attempt to secure a space for “an act apart,” games occupy a similar middle ground. Their dual character arguably suggests a potential for the “pretheoretical” and the “not yet existing” alike. Games and videogames are distanced from the “ordinary” by means of spatial and temporal boundaries, as well as rules that do not apply in the everyday. However, this existence of well-defined rules and their status as reified play in general can also be interpreted as a strong theoretical foundation, particularly because these rules have to be determined in advance, deliberately securing the playing field. The following sections show that, in contrast to ‘conventional’ games—for lack of a better term—videogames as a particular case of reified play can in fact be host to distinct spaces of a middle-ground Otherness in Wegner’s sense and can host a variety of conflicting elements.

2.3 The Computopic Universe

If rules are important for human play, they are indispensable to videogames. Conventional games not only present the player with spaces for action, but also feature rule sets which can be subjected to change within certain boundaries. Such changes take on the form of agreements between the players, which also exist in the realm of videogames. In contrast to conventional games, however, in videogames “there is no ‘ball’ that can be out of bounds” (Juul 2005, 165), because the rules are authored by the designer in the program code. Except through manipulations to the code, these rules cannot be changed. In conventional games, all rules have to be agreed on and consciously renewed in a kind of social contract by the players.

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12 Game rules may be adapted to the specific spatiality of this environment or the context in which the game is played. An example would be soccer games played in parks. In cases where the requirement of 22 players or that of sufficient space for a standard playing field are not available, a similar game can still be played in a slightly adapted form.

13 The use of this term requires a brief explanation. In the context of this thesis, I adapt this term from conventional videogame jargon, in it refers to the person supervising the creative process of design and development that leads to a complete videogame software. Considering the number of people and companies involved in this process in most cases, this is a gross simplification. However, in this thesis, I cannot do justice to the complexity of this creative process. The term designer thus refers to all those involved in creating the final product as I experience and analyze it. Where instructive, I mention influential key persons.
In videogames, a large part of the rules is upheld by the computer, “freeing the player(s) from having to enforce the rules; and allowing for games where the player does not know the rules from the outset” (Juul 2005, 53-54). Michael Liebe (2008, 332) claims that while in traditional games, restrictive rules differentiate the game space from ordinary life, in videogames, on the contrary, the virtual game field and the virtual space surrounding the playground are both based on the same code. […] The consequences of this are that in a computer game everything is programmed, every possible action, every physical simulation, even the boundaries of the virtual space itself. […] Players do not have to adhere to the code of behavior and the rules, but simply have no other choice than to act within the frame of the possibilities provided by the computer program.

Juul and Liebe point to an important potential and limitation of the player's agency. On the one hand, action is confined to what is afforded by the software. This limitation is necessary, because it affords the game goals and the challenge, or, as Marry Flanagan (2009, 61) puts it, “the pleasures of gaming derive from the structures of rules that define the game environments.” On the other hand, rules may be learned in the process. I will come back to this point below. Before, I would like to examine the status of the rules as such in more detail. Despite his general tone, Liebe’s examples suggest an unnecessarily narrow conception of the term “computer game,” limited to the game intended by its designer. Discussing the difference between the conventional version of Solitaire and its computer counterpart, he argues that in the latter, “the software program fulfils the function of the referee, so it is impossible to change the rules or winning conditions spontaneously. […] [I]t is even impossible to make accidental mistakes” (Liebe 2008, 335-336). Here, Liebe runs the risk of ignoring the existence of cheating and bugs, the flexibility of the game rules and subversive player practices.

In Cheating, Mia Consalvo (2007, 2) shows that, despite rigid rule-sets, videogame players nonetheless cheat and “challenge the notion that there is one ‘correct’ way to play a game.”¹⁴ Likewise, Talmadge Wright, Eric Boria, and Paul

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¹⁴ Consalvo (2007, 87-89) points out that players define cheating differently have different ways of defining cheating. While generally regarded as an act that gives a player an unfair advantage, player’s opinions as to what counts as cheating range from broad definitions like “anything other than a solo effort in completing a game” to narrow definitions of acts that result in an unfair disadvantage of others, which do not regard the use of cheat codes and walkthroughs in single player games as cheating. Although Consalvo does not make this explicit, the latter definition implies an understanding of single-player games as the sum of
Breidenbach (2002, no pn) show with empirical evidence that “[p]laying is not simply mindless movement through a virtual landscape, but rather movement with a reflexive awareness of the game’s features and their possible modifications.”15 Flanagan (2009), who emphasizes the critical practices of “unplaying” (enacting forbidden scenes and alternative scenarios), “reskinning” (altering characters or objects) and “rewriting” (redefining play from within) (33-34), goes as far as to claim that “[t]he digital ‘magic circle’ that players enter is an open environment focused on experimentation and subversion” (61). I am not ready to generalize this claim for all videogames. However, Wright, Boria and Breidenbach show that it is advisable to distinguish the sum of all rules of the game world at least theoretically from those of the game intended by the designer.16

If alternative and subversive player actions are not to be excluded from the analysis from the start, it has to encompass the sum of all rules defined in the software, including the pre-defined rules of representation and graphical, audio, or other databases the game involves, as well as those rules that make modifications to these databases and other elements by the player possible.17 Liebe’s observations are nevertheless important and, I believe, can be maintained if they are applied to the totality of all rules in the software. Within this totality, the player “does not have to artificially limit his action possibilities according to the rules in order to play correctly. Illegal actions cannot be performed or they are automatically penalized.

15 In their analysis of creative player actions in the computer game “Counter-Strike”, Wright, Boria and Breidenbach (2002) show how this difference between the videogame as intended by the designers and the videogame world as created by the architects. Most revealing is their account of unpredicted communication practices through which “[t]he dead have found a way of communicating with the living.” They show how by exploiting the game system, the players have found ways to bypass the intended restrictions of the game. The game does not permit communication between the dead players, who can follow the gameplay through the eyes of any avatar still in the game, thus potentially able to give away enemy positions to their team members. Yet, the designers overlooked the possibility of voting, a communication tool available at all times. Voting an opponent’s position away is not recognized as a rule-breach by the computer, although it might be conceived of as cheating by the human players.

16 To stick with Liebe’s example, it is quite possible to use the random function of the ‘deck’ in computer Solitaire for gambling, if two players decide to bet on the colour of the card appearing next. Of course, this is first and foremost a theoretical point to highlight the flexibility of even the most rigid rule structure.

17 For the purpose of this thesis, this excludes the practice of modding, although the boundary here is arguably not clear-cut. Furthermore, I will not pay attention to uses of videogames other than playing, like machinima, a practice of creating film sequences by recording the action in the game world.
The rule system does not have to be magically upheld by aware players. The rules are upheld by the program code” (Liebe 2008, 333-334). This conclusion allows me to identify the object of this study as the ideational space defined and qualified by the sum of all rules in the software. I call this the computopic space of a videogame. The computopic space is not identical with the software, nor can it be reduced to the software without loss. Why not? The software defines a videogame on an abstract level, not only with regards to its rules, but also with regards to the objects of the game world, their behaviour, and in most cases, their appearance in the shape of included databases. Yet, these abstract definitions are different from the game world a player encounters in play in crucial ways. In its concrete instantiation, the computopic is a dynamic space generated by the computer based on the programmed algorithms, the data provided with the software and the player’s input.

A look at contemporary software design and its guiding principle of object orientation helps to explain this difference. Object-oriented programming (hereafter oop) follows the idea that a program is most efficiently structured in the form of independent objects which are instantiated and interact during runtime. Bogost (2006b, 39) mentions four main characteristics of oop. It has to follow the principle of abstraction, meaning that programmed objects have to be disassociated from any specific use. It has to be encapsulated, meaning that an object’s content remains hidden to other parts of the program or system. It has to be polymorphic, meaning that instances of a class can have different behaviours. It is based on inheritance, meaning that a class can be created from or based on a parent class. These principles hint at the distinction between classes in the program code or software, and concrete instances of these classes during program run-time. A class is defined only once and in an abstract manner. If equipped with variables, the computer can not only create multiple instances of it, but also assign different content to each instance as needed.

The term “computopic space” is inspired by a blog post by Pink Tentacle (2009) on the “~pink tentacle” blog from October 22, 2009, entitled “Computopia: Old visions of a high-tech future,” which discusses a 1969 Shōnen Sunday feature series of illustrated articles about a computerized future called “Computopia.” Recently, I have come across a book by historian of Japan and Korea Tessa Morris-Suzuki (1988), entitled Beyond Computopia, in which she analyzes the emergence of “information capitalism.” Morris-Suzuki discusses the implications of this trend and the possibilities for its transformation, concluding her analysis by sketching a vision of an “information democracy,” in which the “private appropriation of social knowledge and its conversion into a source of corporate profit” is reversed into a “re-socialization of knowledge” (205).
This dual structure of software is not new to informatics. However, in combination with the importance of player input and the dynamic, algorithmic character of videogames, it has several far-reaching consequences for the computopic. First and foremost, this combination means that the computopic space hosts multiple material realities or worlds, the quantity of which depends on the number of variables, their type, the predefined values that can be assigned to these variables and their dynamic behaviour. If all the ways in which a player can act on the game in each moment are taken into account, their number easily approaches infinity. This means that the computopic is also the sum of all instances it hosts and affords.

In his discussion of *Fictional Worlds*, Thomas Pavel (1986, 51) offers a helpful model for a similar situation. He regards any number of fictional worlds as members of universe or set K if they meet the conditions specified by an actual member of K and a relation R of alternativeness. Any world \( x_1 \) that is possible given a specific relation \( R \) to a given member of K is part of K. According to Pavel, \( R \) can follow different conceptions of possibility, such as logical, metaphysical, or psychological. However, in my case, the alternativeness of the possible worlds in a videogame is given by the sum of all rules that make them possible. Slightly adjusted, then, I propose to capture the contingency of a specific computopic space by referring to any of its instances as it appears to the player at play with the term *computopic world*. If \( R \) is simply defined as a link to the same software, the entirety of possible computopic worlds can be called *computopic universe*. The term *computopic space* remains viable throughout this thesis as an abstract signifier for the sum of all rules of the software.

The computopic universe is virtual and digital, which, within the limitations of what soft- and hardware afford, frees it from the physical and social laws of our empirical reality. This in itself marks it as a space of Otherness, albeit not distinct from fictional worlds in other media. I have mentioned that this space cannot be reduced to the sum of its rules as it is represented in the software code. It is neither

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19 In his sensible and innovative approach to *Cybertext*, Espen Aarseth (1997, 10-11) claims that databases are an epochal break on the physical level because, through the distinction between interface and storage medium, they signify new ways of using textual material. He argues that, on a semiotic level, cybertexts show a “unique dual materiality” and thus have to be differentiated into surface and deeper layer (40). Since the early 2000s, databases have gained more and more attention from media scholars and philosophers like Lev Manovich (2001) or Azuma Hiroki (2001), reflecting their increasing importance and pervasiveness (see Schäfer and Roth 2012).
intelligible as material manifestation on the computer memory during run-time. Rather, access to it is only possible in the experience of its sensual representation on the screen, in the speaker, and with the vibrating controller in hand.

Due to its definition as the sum of all rules, the computopic space includes its rules of sensual representation and their content. Usually, a computopic world and its objects exceed the actual, momentary representation on the screen. In addition to this partiality, the representation of the computopic space is also selective and involves a transformation. Lev Manovich (2002, no pn) explores this dimension in the case of visualization. He defines visualization as particular subset of the general practice of mapping data, understood as re-presentation of data in another way or form. As such, visualization refers to the transformation of non-visual data into (novel) visual representations of that data. Observing that most data is more complex than the four dimensions human beings are used to in the everyday (3D space and time), Manovich claims that visualization is based on a politics of mapping, in which actors decide on which mapping to apply, what dimensions to select, and what interface to provide the user with. In the context of this thesis, the term “representation” is used to convey this double transformation of the computopic space in its sensual mapping, reduced both to a partial and abstracted appearance in sound, visuals, and vibration. This notion of representation is similar to Gadamer’s (2004, 114) understanding of mimicking as a decontextualizing practice of abstracting and emphasizing, in which “imitation, as representation, has a special cognitive function” because it makes us recognize something new.

In Figure 1, I have visualized the idea of the computopic space, consisting of a contingent universe based on the software and concrete reifications in worlds generated by the computer and player input.

2.4 Action
The computopic space is not only represented, its worlds are also enacted. In his discussion of “Gamic Action,” Alexander Galloway (2006, 2) emphasizes this centrality, claiming that “videogames are actions” insofar as they “exist when enacted. [...] With video games, the work itself is material action. One plays a game. And the software runs.” Galloway distinguishes videogame action into machine acts and operator acts, and into diegetic and non-diegetic acts. The latter division refers to “the game’s total world of narrative action” as opposed to “those elements of the
gaming apparatus that are external to the world of narrative action” (7). Given my definition of the computopic space as the sum of all rules in the software, the difference between diegetic and non-diegetic is not central at this point.20 However, the emphasis on machine acts and operator acts is helpful to discuss the different qualities both have.

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20 Galloway (2006) himself acknowledges the vagueness of this distinction, both with regards to operator and machine acts. In the sphere of operator (player) acts, the non-diegetic refers to actions of configuration, like pause, cheats, hacks, not explained or motivated by events in the game world (12). Opposed to this, diegetic operator acts are either move acts (movement in the space of a game world) or expressive acts (linking the player character to an actionable object in the game world) (22). In a self-critical remark, Galloway points out that “actions of configuration are often the very essence of the operator's experience of gameplay—simple proof that gaming may, even for limited moments, eschew the diegetic completely” (14). In the sphere of machine acts, he distinguishes between diegetic machine acts or “pure processes,” meaning ambience acts by the computer in which “[t]he game is still present, but play is absent” (10), and non-diegetic machine acts, meaning “actions performed by the machine and integral to the entire experience of the game but not contained within a narrow conception of the world of gameplay. […] Included here are infernal forces like power-ups, goals, high-score stats” (28). Here, too, Galloway admits that the distinction between diegetic and non-diegetic is blurry, particularly with regards to this last category. Indeed, it seems very plausible to conceive of a power-up or other item as crucial for the narrative progression of a game. Since my framing of videogames does not distinguish between diegetic and non-diegetic elements, all examples Galloway mentions have to be regarded as part of the computopic space.
I would first like to take a look at operator acts or player actions. Player input is one of the most basic, most important features of videogames—without it, playing would not be possible (Juul 2005, 60). Player input is also an important factor in universal contingency and world plurality. It affords choices about the direction and character of the game world, from difficulty and sound volume, to narrative paths or the choice of weapons. In combination with the possibility of repetition and saving featured in many games, this means that a world or universe can be revisited and enacted differently, thus allowing for the exploration of multiple instances—a repetitive practice arguably at the heart of videogame play.

In contrast to literature, videogames thus allow the player to act physically on their universe and shape or alter its materiality.21 In the above section, I have already mentioned the potential of exploring a game world without knowing the rules and effects of one’s actions, and the limitation of player action as being constrained to the possibilities authored in the software. The existence of such absolute limitation may lead to the conclusion that videogames are indeed spaces of predefined behaviour or even reaction rather than creativity and autonomy.22 However, as discussed above, the computopic rules are often somewhat different from this initial set, either because they are intentionally left vague and only disclosed partially, or because the available rules can be subjected to alteration or used subversively to create new games. Whereas the conscious effort of maintaining the rules in conventional games is a struggle against the intrusion of the ordinary, the struggle to overcome or experiment with the rules of a computopic universe does not risk opening the door to reality, but rather allows for a direct assault on reality’s boundaries.

The double structure of absolute limitation on the one hand, and vagueness and flexibility on the other, opens up a space that affords speculative, non-predefined player action. In The Aesthetics of Music, Roger Scruton (1999) discusses the
importance of “unasserted thought” and the speculative quality of the imagination. In his terms, “[r]ationality involves the ability to represent to ourselves absent or hypothetical situations, to project our thought in a speculative arch away from the immediate present, into regions which are past or future, possible or impossible, probable or improbable, and from which it returns with insight into the nature of things” (88). In a sense, speculations are important in videogame play, because they allow us to project the possible outcomes of our actions and speculate about the computopic space. As Juul (2005, 176-177) puts it,

the representation and fictional world presented by the game cue the player into making assumptions about the rules of the game. […] In video games, the rules are initially hidden from the player—this means that the player is more likely to use the game world to make inferences about the rules. In fact, the player may need a fictional game world to understand the rules. […] The way a given object or character behaves will characterize it as a fictional object; the rules that the player deducts from the fiction and from the experience of the playing of the game will also cue him or her into imagining a fictional world.

In other words, the appearance and behaviour of the game world, and the actions that correspond to input serve as the basis for a player’s assumptions about a computopic universe. In videogames as much as elsewhere, such speculations always depend on earlier experiences and knowledge. Yet, games are virtual spaces of Otherness in which the rules of our empirical reality do not necessarily apply, and the rules of which we may not know in their entirety—where we need to experience a world in order to make sense of it. Espen Aarseth (1997, 1-3) famously argues that videogames are an example of the “ergodic cybertext,” which he defines as a “machine for the production of variety of expression,” requiring “non-trivial effort” of its users. Given the totality of rules for the respective effort, this also means that an ergodic work “in a material sense includes the rules for its own use” (179). In other words, they are explored in action. What is more, the process of making sense of the game world is not geared towards interpretation, but often towards configuration—a practice of acting in favour of a specific goal or situation rather than in a sensible manner in harmony with the narrative. In his attempt to rescue videogame studies from the colonization by literary or film studies, Eskelinen (2001, no pn) claims that “the dominant user function in literature, theatre and film is interpretative, but in games it is the configurative one. To generalize: 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.” This argument is inspired by Aarseth (1997, 110-111), who distinguishes between a narratologist understanding of game tasks as gaps in the narrative filled in by the users on the one hand, and “openings” or “keyholes” in games, which are filled in order to make the game continue, on the other. According to Aarseth, the adventure game “disintegrates any notion of story by forcing the player’s attention on the elusive ‘plot’” (112). Although I don’t believe that interpretation and configuration practices are ever exclusive in the engagement with the computopic space, these observations highlight the importance of both categories and shows that action in videogames does not necessarily depend on interpretation and may neither be restricted to acts that contribute to narrative consistency.

On a subjective level, the limited action possibilities can at least hypothetically be deployed on a computopic world in a spontaneous fashion, not based on the highly probable predictions that define large portions of gaming. An example can be found in the counter-intuitive practice of “rocket jumps,” which directs explosives to the ground while jumping, thereby injuring the player character but also accelerating it (Wikipedia 2013o). In a limited sense, this technique has to be discovered by the player, both as a way of moving and in its highly demanding choreography—failing to execute it properly leads to substantial damage. However, if successful, it can propel the player to places otherwise unreachable. One might point out that, in most cases, the designers intended rocket jumping. Yet, for the individual, this possibility may still have to be discovered in trial-and-error fashion or by chance. Furthermore, there are numerous examples of a more radically unpredicted and unpredictable “emergent gameplay” resulting from rule

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23 An inspiring thinker of action and matter, although probably outdated by any contemporary biological or cognitive science standards, Henri Bergson (1912) distinguishes between those actions grounded in the intellectual mind, and those pursued by the creative mind in *Schöpferische Entwicklung* [Creative Evolution]. The intellect, he claims, orders the world and presupposes space, but cannot construct it (215). Moreover, this order exists for the intellect and reflects it in the ordered objects (227). The free mind, on the contrary, is perpetual progression and creation (227). I do not propose to follow Bergson in all his questionable distinctions. However, his framing of creative action as “jumping in at the deep end” (197-198) describes the potential for creative, spontaneous action in videogames rather well. Such action is disruptive of the intellectual ordering, which denies the uniqueness and unpredictability of life and, instinctively, attempts to identify resemblances to the already known in any situation (35-26). I believe Bergson’s understanding of action and matter could contribute to a philosophical perspective on videogames fruitfully. However, it would stretch the boundaries of this thesis too far to engage with his thought in the necessary depth, particularly given his problematic terminology and his tendency towards mysticism.
This discussion suggests that the difference between the accessible or knowable (and maybe even the intended) rules and the actual sum of all rules in the computopic might correspond to a difference between rule-based and creative player engagement. Raymond Geuss (2010, ix) claims that “[t]o act is in an important sense always to create something new, an object, a change in an existing situation, a new reality.” The broad understanding of action and novelty this statement suggests, may tempt us to conclude that the possibility of action alone marks videogames as spaces in which the player can not only imagine, but also create novelty or Otherness. However, it remains to be seen whether the tendency towards creative play is strong enough to justify the term action in its narrow, political sense, as well. In any case, the tension between analytic, calculating play directed towards the intended goals and playful, creative explorations of the computopic is crucial for understanding the character of its Otherness, and provides some of the potentials for conflict.

Next, I would like to turn to the role the computer plays for the computopic space. As already mentioned, Galloway regards the computer as a second agent. He states that in videogames, “software instructs the machine to simulate the rules of the game through meaningful action” (Galloway 2006, 2). In combination with the contingency of the player actions and the indeterminate character of the software algorithms, the involvement of the computer shifts the designer’s role from an artist of a work of art to an artist of a variable structure. In order to explain this shift, a brief excursus to Carroll’s (1996b) ontological effort towards defining the “moving image” may be helpful. Carroll identifies five necessary conditions for what he terms “the moving image”:

We can say that $x$ is a moving image (1) only if $x$ is a detached display, (2) only if $x$ belongs to the class of things from which the impression of movement is technically possible, (3) only if performance tokens of $x$ are generated by a template that is a token, and (4) only if performance tokens of $x$ are not artworks in their own right. (70)

He adds the fifth category of “two-dimensionality” in order to distinguish moving images from three-dimensional, moving sculptures. For my purpose, conditions 3 and 4 are most relevant. Carroll arrives at these conditions by distinguishing the moving image from play performances (66-70). Play performances are tokens generated by interpretations, whereas moving images are “generated from tem-
plates which are tokens.” In contrast to plays, Carroll regards their performance (the showing) itself not as artistic, but as a technical engagement with an apparatus. Although I disagree with the observation that the technical process of performing a moving image—and other kinds of media, for that matter—is not also an artistic process, Carroll’s terminology may serve as a starting point for the consideration of the generative process of ideational Otherness in videogames.

In analogy to the moving image, videogame software can be conceived as template created by the designer. This generative process, however, differs from that of the moving image, because it involves mediation by the computer, which cannot be reduced to a technical engagement in Carroll’s sense. The variability and contingency of the computopic implies that the concrete instance of the designer’s ideas created by the computer can potentially involve an interpretation—it is not a coincidence that the “interpreter” is a common term in computer science, referring to a program that “executes, i.e. performs” a source code (Wikipedia 2013). Interpreting and performing the instructions in the software, the computer adds a layer to the artistic process.

If technology in general is not seen as “neutral,” the performance of a template could be said to involve a transformation of the original data already in the case of moving images. However, I would argue that the relationship between template and token remains linear in most cases, meaning that it could be regarded as a projection in the common geometrical sense. If there is a large hole in the screen or if the projector of a film moves too slowly, it will likely have a similar effect on the entire performance. In contrast, world-plurality, contingency, player input, as well as indeterminate algorithms—most famously, random functions—turn the performance of a videogame at least theoretically into a non-linear, unpredicted and in some cases unpredictable transformation of the coded template.

In this sense, the computopic can be characterized as a space that does not fully originate in the designer’s imagination. In other words, the concrete computopic worlds are in part unimagined, and so thus by extension is their universe.24 It allows the designer to author variable, contingent ideational structures or meta-

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24 The intense testing period prior to a game release not only targets errors in the program code, but is also a necessary means to verify the predictions made in the design phase in the actual, playable form. Together with the established practice of updates and patches issued after the game release, this testifies to the unimagined quality of software and the lack of control the designer has over its complexity and thus the results of the creation process, as well as to its flexibility and receptivity to post-release changes. This corresponds to the emergent quality of player actions.
ideas (character classes, the choice of difficulty and its effect) and to define their possible content (the appearance of a specific character, the levels of difficulty available, etc.). The concrete computopic world a player encounters, including its representation at any given moment, is determined at play, based on player and computer acts. The computer enacts the code as it is, with all its flaws, contradictions, and bugs—unintentional mistakes in the program or rule system. At the same time, the computer is also responsible for interpreting player input. In a sense, the machine becomes a particular kind of artistic device in its own right, a non-human player who performs the program code and plays with various kinds of input to generate concrete manifestation of the variable ideas authored by the designer.

2.5 Expression

With the abovementioned characteristics in mind, I would like to take a look at the concrete expressive elements of the computopic. For the purpose of this thesis, the term expression is used in a practical sense to encompass all ways in which videogames convey ideas, whether abstract, philosophical or concrete, sensually perceivable. In this broad definition, it includes diverse elements such as rules (action, world and object behaviour, goals, etc), sensual representations (visuals, sound, movement), narrative content (story, setting), or controls. Given this breadth and diversity, I don’t intend to discuss all elements in detail. Instead, I propose to focus on the general character of computopic expression and its potentials and limitations for Otherness, leaving elaborations on concrete elements for the analysis.

It seems helpful to begin with the relation between different expressive elements. In the attempt to establish videogames as a distinct medium in its own right, much attention is directed to the rules as main expressive element of games. Bogost (2007, 2-3) emphasizes the potential games have due to their “procedurality,” meaning “a way of creating, explaining, or understanding processes.” He claims that computers and videogames are “particularly adept at representing real or imagined systems that [...] operate according to a set of processes” (5). For Bogost, this includes representations of culture, society and human behaviour (7-9). He goes as far as to claim that in videogames, “image is subordinate to process” (25). This view is representative of a widely shared conviction that in the computopic space rules are
superior to other elements. According to Juul (2005, 121)

rules and fiction compete for the player’s attention. […] However, it
is not possible to deal with fiction in games without discussing rules.
The fictional world of a game is projected in a variety of ways—using
graphics, sound, text, advertising, the game manual, and the game rules.
The way in which the game objects behave also influences the fictional
world that the game projects. Though rules can function independent of
fiction, fiction depends on rules.

He adds that “[o]n a formal level, games are themable, meaning that a set of rules
can be assigned a new fictional world without modifying the rules. […] Nevertheless, fiction matters in games and it is important to remember the duality of the
formal and the experiential perspectives on fiction in games” (199).

Procedures and algorithms doubtlessly constitute a central element of
computopic expressivity. The focus on procedures seems even more plausible,
considering that they also regulate sensual representations and organize the image
or representation. In this sense, representations might be understood as subordinate
to process. However, I hold against this view that, as I have argued above, the
procedures or processes, as they exist in the software or in their instantiated form
on the computer hardware, are not sufficient to afford gameplay. On the contrary,
they depend on representation to be perceivable and intelligible for the player.

A brief consideration of the various versions and interpretations of the well-
known game Tetris shows that the sensual representation of the rules itself can have
a deep impact on the ideational content of a game. From a perspective on games
as interpretations of experience, Janet Murray (1997, 143-144) argues that Tetris
is a “a 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 and clear off our desks in order
to make room for the next onslaught.” Juul (2005, 133) remarks that this is one
possible, allegorical reading of the game, albeit not a very convincing one. Yet, it

See, however, a recent article by Miguel Sicart (2011, no pn), who criticizes “proceduralists”
for their focus on pre-structured, “instrumental play.” Drawing on authors like Adorno and
Horckheimer, and Fink, he argues that “[g]ames structure play, facilitate it by means of
rules. This is not to say that rules determine play: they focus it, they frame it, but they are still
subject to the very act of play. Play, again, is an act of appropriation of the game by players.”
Sicart’s argument highlights the importance of looking beyond the rule system when
analyzing videogame expression, although he exaggerates the limitedness of proceduralist
perspectives—emergence, disruption and player subjectivity are by far not being ignored by
Bogost or Flanagan, whom Sicart mentions as representatives of “proceduralists.”
should not be too difficult to imagine a version of Tetris where the bricks falling down look like documents and files, and the bottom of the playing space like a desk. In a blog post on his website, game designer Raph Koster (2009) reports that his hypothetical, distasteful version of Tetris skinned as a gas chamber he proposed in *A Theory of Fun for Game Design* (Koster 2005) was realized by a team of designers. As the blog-post recalls, this extreme thought experiment should prove that "[y]ou could have well-proven, stellar game design mechanics applied towards a quite repugnant premise." This point could have been proven in a far less extreme way, but the experiment emphasizes the fact that the experience of a game can change profoundly with its respective skin—particularly in the case of abstract games, mechanics and rules can be deployed for expressing various meanings. Thus, even if videogames are flexible and “themable” in terms of their representation, specific themes have a strong influence on their ideational content, and its perception and experience.26 Extending these findings to videogame expression in general, I propose to regard computopic expressivity in principle as generated from a flexible combination of multiple elements. This includes elements familiar from other media, such as narrative structures and textual descriptions, images, or movies (cut-scenes), but also distinct elements like game rules, goals, and player actions.

Despite his strong emphasis on the dominance of processes in videogames, Bogost (2006b) offers a helpful framework in his earlier proposal to regard contemporary media products as *Unit Operations*.27 Here, Bogost demands that “[w]e should

26 Notably, Bogost’s (2007, 103-109) own example of the game *Tax Invaders* does not support his claim convincingly. *Tax Invaders* is a reskinned version of the popular game *Space Invaders* created by the Republican party in the U.S., in which the player controls a graphical representation of the head of George W. Bush and has to shoot down invading taxes (issued by the hostile democrats), represented textual through large sums of money moving towards her. Bogost regards this as a sophisticated example of procedural rhetoric, because “the player completes the game’s argument [here, the conservative anti-taxation position; mer] by firing the projectiles that defend the nation from Kerry’s potential tax plans.” He argues that “*Tax Invaders* takes the metaphor beyond verbal and visual rhetoric,” as it redefines taxes as a foreign, even alien, enemy. Although the game is an interesting example of a procedural argument, Bogost himself has to admit that *Tax Invaders* “mounts its argument partly through verbal rhetoric […] and partly through visual rhetoric.” In order to translate its rule-based system (its procedures) into a political context, *Tax Invaders* relies heavily on both graphical and textual symbols and takes advantage of the meanings represented by the original game *Space Invaders.* Thus, although the rules of the game (shooting down intruding enemies) might be understood as “symbolic structures of a higher order than natural language,” these rules – the procedure – of the game alone are not always sufficient to reframe the game. *Tax Invaders* exemplifies my argument for an inquiry of the way, in which procedural and sensual elements are combined in videogames.

27 Sharing a quite similar intuition to that of Bogost, Linda Hutcheon (2006, 31-32) mentions Richard Dawkin’s concept of “memes,” or “units of cultural transmission or units of
attempt to evaluate all texts as configurative systems built out of expressive units” (70). He argues for a broadly defined analytical approach to contemporary media products that views them as results of "unit operations," meaning a “configurative system, an arrangement of discrete, interlocking units of expressive meaning” (ix). This approach derives its strength and flexibility from the postulated openness of the "unit," which, according to Bogost, can be anything from a single physical element to a complex thought or structure consisting of multiple interconnected units (5). "Unit operations" point to a dynamic representation of units created by spontaneously deriving meaning from the interrelations of their discrete components (4, 8). As such, this model provides an adequate description of the combinatorial character of computopic expression, and will serve as a guideline for the following analysis and its methods.28

What are the boundaries of such expression with regards to Otherness? An initial observation is that despite its actionable character, computopic expression is not limited to the physical environment in the same sense as conventional games are, because it is not only fictional, but digital and virtual. In conventional games, the player is part of the physical spaces of the game. In videogames, he or she is physically positioned outside of these boundaries, connected to the computopic space only through remote control. Accordingly, player actions take place within one system to which Newton’s laws of force, impulse, and reaction apply (even if the objects force is applied to have a meaning different from the ordinary). In the case of videogames, the player environment and the computopic space are different material realities—they both physically exist but are not continuous. The player’s actions are translated and transposed to be meaningful within the differing physics and laws of the game world.29

28 Beyond its compatibility with the multifarious character of videogame worlds and its representations, this definition further takes the character of software into account, stressing the similarities the unit shares with the encapsulated (discrete), polymorphic objects of object-oriented programming, thus potentially preparing the ground for a technologically oriented discussion that may be related back to the elements of the computopic, where it identifies objects through their representation.

29 The force applied to a key or button to generate input may be irrelevant to the electronic signals sent to the computer or the digitalized input that arrives in the game world, not due to friction, but due to the process of abstraction called “digitalization” itself. The mouse may serve as an even better example. Whereas the force applied to the mouse on the table seems to be reflected in the movement of the cursor on the screen or in the game world, the possibility of changing mouse sensitivity rather reveals it as a relation of scalable congruency. The same may be said for contemporary trends like Nintendo’s Wii or other
A similar arbitrariness characterizes the semantics of the computopic space. As mentioned above, computopic representation is not bound to the rules of representation we are used to, but rather to those indeterminate, flexible rules applied to fiction in literature or film. A representation might be deployed in order to make the object meaningful from our point of view, but it may also have no purpose or defy our expectations—doors that cannot be opened, cars that cannot be driven. With respect to its representation, the computopic space or its objects may appear contradictory from a perspective grounded in our everyday experience and, where they are directed towards goals, even contradict fictional coherence. Furthermore, both representational and object features may change over time, due to player actions, or depending on the player—weapon upgrades or player character appearance are but a few examples of this.

In sum, **the computopic space is distanced from ‘empirical reality’ from the start in that it initially always appears as an Other space.** Whereas utopian narratives require a distancing mechanism, like an imaginative journey through space or time, whereby the reader is prepared for the Otherness of what is to come (Wegner 2002, 17), the computopic reverses this process insofar as the Otherness of its objects and environments is dimmed down by the introduction of familiar signifiers, behaviours and rules, both based on our empirical reality and on other games and conventions. One of the most concrete expressions of this reversal is the strong tendency towards realism in the representation of the game world and the respective theoretical framings of videogames as simulations of our empirical reality. Such realism strengthens the status of a game as mass art in Carroll’s sense, increasing mass accessibility through commonplace references to the everyday. In turn, it serves to reduce, or, reverse Otherness.

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30 Juul (2005, 184) mentions the productive, satirical potential of incongruities between rules and fiction, but does not expand on this issue.

31 A freely available multiplayer first-person shooter created by the U.S. military as a recruiting advertisement, *America’s Army* shows that even the appearance of the same object in the same computopic world can differ between multiple users. Although the players are divided into two opposing teams, the respective adversaries are represented as “threat” to the American army to which all players belong. While fighting against each other, all players are U.S. soldiers, always fighting an external enemy (see Bogost 2007, 77-78).

32 I am not arguing that realism in games and their qualities as simulations cannot make a contribution to specific aims. Scholars like Fujimoto Tōru (2007) or Ian Bogost (2007) convincingly claim that “serious games” and “persuasive games” geared towards educating us about a specific subject, situation, or practice can contribute to our understanding of society, culture, and politics, and can convey complex messages in innovative ways. Examples like the games of La Molleindustria (2013) or newsgaming.com (2013) show the
In the context of this analysis, the focus lies on the concrete ways in which computopic expressivity can generate disruptive conflicts. In the broad sense in which Adorno understands this term as stimulating *Phantasie*, such conflicts might target any kind of cognition, including its emotional dimension. Grant Tavinor (2009, 131) argues that emotions are involved in videogames in many ways.\(^{33}\) Given my emphasis on action, this is particularly important, because “[n]ot only do the fictions of videogames arouse our emotions, but these emotions have an impact on what the player is and is not willing to do in a game world” (132). Tavinor claims that emotions work to “frame the world as represented, by making salient those parts that deserve our attention. Faced with a rich decision space in which we need to act, emotions not only focus our attention, but also help to bias the choice over options so that efficient decisions can be made” (144).

Tavinor observes that, “[t]he fictional status of videogames means that our emotional buttons can be pushed in absence of the consequences with which they are usually associated. Fictional worlds seem to allow us a greater access to some kinds of emotionally provocative situations, given that acting in a fictional world lacks the cost of acting in the real world” (146). Thus, emotional and moral elements deserve attention and may turn out to make relevant contributions to disruptive conflicts in a virtual environment in which theoretically, “anything goes.” What elements are actually disruptive in which constellation, is a question that the analysis will need to answer.

The detached, virtual character of games does not mean that anything is

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\(^{33}\) In his analysis of emotions in videogames, Tavinor (2009, 133-136) discusses the “paradox of fictional emotions,” i.e. the question “how something that is known to be fictional – and subsequently known to have no real existence – can be the cause or object of the strongly felt emotions evident in gaming.” Against existing views, he argues that this cannot be explained with the real effort of the player or the real existence of the games as obstacles, nor by referring to concepts like “mistaken beliefs” or “suspension of disbelief,” because “playing a fictive videogame involves an acknowledgement of the fictive status of the game, and so involves the special cognitive attitude characteristic of fictive practice as a whole. […] Videogames involve us, guided by digital props, imagining or ‘make-believing’ that certain things are the case, and the perceptual properties of these props and our make-beliefs about what is fictional are emotionally affecting. My emotions for the Little Sisters [an example of a non-player-character in the game Bioshock Tavinor refers to] are possible because what we imagine is often just as capable of causing emotions as what is believed.” In a later section, he adds that “[i]t is make-believe – both in partially causing our emotions and in conditioning our response to those emotions – that is crucial to explaining how we become *emotionally immersed* in the fictional worlds of videogames” (139-140).
possible. It seems appropriate to point out some of the limitations of computopic expression. Videogames can target our sight, hearing and touch sense, they can convey complex narratives and rapid, emergent movement, and they afford player action and reaction. They can push our emotional buttons by presenting adorable or scary creatures, and more generally experiences ranging from boring, joyful and empowering to horrible and angst inducing. The intensity of shooter games and the adrenaline fast-paced action can induce are comparable to or maybe stronger than what any other medium can offer.

Some theorists go as far as to argue that games can even convey the experience of extreme “real-life” situations. Bogost (2007, 126-129) makes an argument in this direction in his discussion the game *9-11 Survivor*, in which the player is spawned in random locations in the burning World Trade Center towers in New York on the day of the horrible attacks of 2001 and has to escape—sometimes without any chance of succeeding. He claims that the game offers an “embodied experience of the procedural interactions between plane, building, and worker” and a “careful treatment of victim’s actual and potential experiences.” Here, Bogost certainly points to the very important fact that videogames can deploy the variability of their procedures in ways capable of generating intense experiences and make arguments through non-repetitive repetition. However, I am sceptical about the physical dimension of this potential. Despite involving button-mashing and player input, I believe that videogame experiences are still dominantly cognitive, and by no means comparable with the actual experience of life-threatening situations human beings experience, with all their immediacy and physicality. The significance of player action and the variability and potential for repetition in videogames can arguably offer distinct and possibly novel ways of conveying ideas and emotions. However, such limitations should be kept in mind during the exploration.

**2.6 Conclusions**

This chapter established the theoretical framework for the following analysis. Claiming that alternatives to the current system require radical political imagination, I identified the disruptive conflict as its stimulus. Based on this, I argued that human play is always reified in rule structures and defined the ideational dimension of videogames that concerns this analysis as computopic space or the sum of all rules in the software. A closer examination of this space has pointed to several
characteristics, such as world contingency, partiality of representation, enactment by player and computer, its broad-ranged, combinatory expressivity and its principle physical and semantic flexibility and arbitrariness.

These qualities render the computopic space an active, contingent, partly unimagined and necessarily Other space, which has a wide variety of potentials for disruptive conflicts, but remains limited in several directions. The consecutive analysis maps these potentials and limitations and aims to answer the question formulated in the first section, whether Otherness and genuine disruptive conflicts are possible—a potential of which I have argued that it needs to be examined with a healthy amount of scepticism. This demands an adequate methodology, which I develop in the next chapter.
3 Methodology and Methods

Neo: Is that...
Cypher: The Matrix? Yeah.
Neo: Do you always look at it encoded?
Cypher: Well, you have to. The image translators work for the construct program, but there's way too much information to decode the Matrix. You get used to it. I — I don't even see the code. All I see is blonde, brunette, redhead...Hey, you want a drink? (The Matrix 1999, quoted from Wikiquote 2013)

In the first chapter, I have established the computopic space as a theoretical framework and pointed to its distinct potentials for radical Otherness and productive conflicts. The following chapter discusses the methodological and methodical demands this space puts on the concrete analysis of a given computopic universe. With their contingency, world plurality, active and partly unimagined character, computopic universes confront the ‘scholarly’ analysis with several difficulties. Due to its contingent existence between hardware, software, and partial representation, the computopic space lacks a well-defined object of study that can be located and delimited. In addition, each universe potentially offers myriad worlds, some of which differ significantly. This might be problematic in a space in which I as a player-researcher have an immediate, materially generative influence on each world I experience: as a player, my choices in a game have a direct effect on where I go or can go, what parts of the universe I see and don't see, explore or choose to ignore. The following chapter discusses these issues and offers theoretically informed, practical solutions for the analysis of the computopic space. By way of doing so, it also takes a stance with respect to what I regard as a scholarly attitude, including the issue of presenting the results to an audience, you the reader.

3.1 Ethnography as Context
At the outset, the features of the computopic space and its demands on the analysis suggest a structural similarity with anthropology and ethnographic research. Ethnography is “an approach for studying everyday life as lived by groups of people” (Boellstorff et al. 2012, 1). Since the space I analyse is not populated by human be-
ings, some of its central methodological and ethical concerns, such as the anonym-
ity of the subjects, as well as a large part of its methods geared towards collecting
data from or of other living beings, do not apply here. However, in terms of flex-
ibility of the exploration, as well as the process from fieldwork to data interpreta-
tion, provides a blueprint for this project and can offer help with several important
methodological problems.

For some ethnographers, such borrowing may appear threatening. “With far more
researchers adopting ethnographic methods than those who have been formally
trained in those methods—in either its historic anthropological or sociological
traditions—the irony is that its popularity threatened to undermine its validity and
effectiveness” (Marcus 2012, xiii, see also Boellstorff et al. 2012, 3). Yet, while this
statement refers to the danger of deploying the notion of ethnography as a “license
to indulge speculation in a more authoritative guise” (Marcus 2012, xiv), I have no
intention of claiming that my methodological or methodical considerations are
adequate on the grounds that they draw on an established methodology—nor am
I convinced of the effectiveness of such strategy; the usefulness of methodological
claims and methodical decisions has to be proven in the analysis. Instead, I draw on
these discussions because they frame research as a mode of discovery, which draws
its questions from the fieldsite (Boellstorff et al. 2012, 32). Given the character of
the computopic, this emphasis on explorative approximation is crucial as a guiding
principle for my methodology.

3.2 Too many Worlds

In The Matrix, those who rebel against the computer system have learned how to
read the real-time stream of code on the screen—they imagine what an algorithm
would look like in the 3D virtual environment of the Matrix. In lack of such faculty,
I have to find other ways of accessing the computopic universe. Whereas a large
part of literary and media studies deals with contained objects or texts, the number
of worlds and representations a computopic universe hosts is neither known, nor
consistent over different titles. It is also not fixed, since the computopic worlds en-
countered at play are not entirely determined by the designer. A major aim for the
methodology is thus to find an approach adequate to dealing with the ontological
vagueness of the computopic space and its contingency, and to derive respective
methods from this approach.
This section develops such methodological approach and suggests concrete methods for exploring a computopic universe. To begin with, I believe that the character of the computopic space requires an engagement guided by principles similar to those listed by Hine (2000, 63-65) for Virtual Ethnography, which she regards as an “adaptive ethnography which sets out to suit itself to the conditions in which it finds itself.” She demands that such ethnography has to be mobile, with its object shaped in terms of flow and connectivity rather than location and boundary as organizing principle. Boundaries are not assumed but explored in the process, the idea of a complete ethnography of a given object has to be abandoned, each decision means to reformulate the object itself. Virtual ethnography is necessarily partial and “[p]ractically, it is limited by the embodied ethnographer’s constraints in time, space and ingenuity” (64). At the same time, “[t]he shaping of the ethnographic object as it is made possible by the available technologies is the ethnography. This is ethnography in, of and through the virtual” (65).

These demands on virtual ethnography are helpful guidelines for the engagement with the computopic space, because they stress the openness and flexibility of the inquiry, its explorative and intervening character, as well as its partial, technology-based access and its practical constraints. With regards to the first shared feature of contingency and indefiniteness of the object, we find a radical specification of the respective methodological openness and flexibility in the writings of Jacques Derrida. In “Structure, Sign, and Play in the Discourse of the Human Sciences,” Derrida (1992) discusses the problem of defining a field without knowing its content, deploying the concept of play to this end. He distinguishes two kinds of structure, namely the centred structure based on “sure play,” and the non-centred structure and its “play without security.” In his analysis, “[t]he concept of centered structure is in fact the concept of a play based on a fundamental ground, a play constituted on the basis of a fundamental immobility and reassuring certitude, which itself is beyond the reach of play. And on the basis of this certitude anxiety can be mastered” (1117). Such “sure play […] is limited to the substitution of given and existing, present, pieces” and “seeks to decipher […] a truth or an origin which escapes play” (1125). In contrast, non-centred play “plays without security” and “is no longer turned toward the origin, affirms play and tries to pass beyond man and humanism, the name man being the name of that being who […] has dreamed of full presence, the reassuring foundation, the origin and the end of play” (1125).34

34 The similarity Derrida’s approach shares with Gadamer’s understanding of non-human
This theoretical dichotomy is a useful framework for thinking about the problem of openness and flexibility of the analysis. Similar to the concept of utopia (see Wegner in chapter 2, p. 20), the computopic space occupies a middle ground between two extremes. Finite and limited by its software, it is nonetheless plural and open-ended in its instances. On the one hand, this means that abandoning the search for origin or inclusive comprehension and thus bearing anxiety is a necessary condition of access. However, its structure is nonetheless limited, rigorously defined and reflected in each instance.

A similar structural tension in works of music is one of the main concerns in the philosophy of music, which may provide some helpful suggestions for the approach. In his discussion of the ontology of a work of music, Stephen Davies (2003, 58) states that “[t]he composer [in my case the designer; mer] provides the event specification from which the work takes its identity, but it is the performer [respectively the player-researcher and the computer; mer] who executes this specification and thereby generates tokens of the work.” Analysing this difference between the work and its performance, he concludes that

ontologically speaking, it is the nature of the work that determines these properties of its instances by virtue of which they are its instances. The epistemic process goes in reverse, however. We come to know the work through its performances. We abstract the work from its instances, stripping away from its performances those of their properties that are artistically irrelevant, and then stripping away those artistically relevant properties that are properties of the performance but not properties of the work, thereby exposing the work and its properties. (68)

A work in the case of the computopic space is the computopic universe, meaning the sum of all worlds a software program facilitates. As such, it is only open to access by the computer. However, as a player-researcher, I can influence the play as to-and-fro movement (see chapter 2, p. 17) supports Derrida’s (1992, 1117) own remark that “one cannot in fact conceive of an unorganized structure.” Yet, rather than criticizing Derrida’s concept of play as a modern idealization, as Sutton-Smith (1997, 148) does, I propose to take it as a radical intellectual challenge or desire to conceive of a no-place or utopia—a space which cannot be grasped spatially. Even play does not entirely serve its purpose here. As Sutton-Smith rightly claims, defying conventional expectations merely means to play by some other rules, and a player can only be playful in the first place, if he is “in a known, rule-bound play context” (150). However, I believe that the idea of pure, insecure play can still inform the research process and shape my attitude to the computopic universes I visit, emphasizing the value of intense exploration and its infinite nature at the same time.
performance directly and at the same time, its audience. This double character of the player-researcher provides me with the possibility of actively exploring and generating multiple worlds, as opposed to an audience which can only rely on an external performer’s choices. In turn, playing is also a part of the experience and as such, in a sense, of computopic expressivity. This suggests that playing is both the most effective method of exploration and the one most adequate for accessing the breadth of expressive elements and potentials of a computopic universe, including the dynamics of action, tension and involvement.

Against the background of Davies’ understanding of the epistemic process, a first demand on the analysis of a computopic universe is that it has to be based on an exploration of multiple worlds, which are then extrapolated and abstracted from. In order to map the computopic universe, I have to develop what Davies (2003, 214-215) calls “an awareness of the overall pattern of […] events. It is the recognition of repetition, similarity, instability, emphatic closure, and so on (but not necessarily of the technical devices by which such results are achieved), and more generally of patterns that emerge from successions of such events, that amounts to the recognition of musical form.” Whereas ethnographic research focuses on participation and observation, this suggests a more active mapping. 35

Maintaining openness in the analysis, I propose to adapt Derrida’s notion of play without security not only on a methodological level, where it informs an open and explorative approach, but also on the methodical level. Here, the exploration of the computopic has to be a playfully invading one rather than participatory-observing, not only playing the game multiple times, but also playing with its rules in search of its structures and boundaries.

The proposal to accept the anxiety of pure play in the analytic exploration remains an important guiding principle, placing the responsibility for any decisions with regards to direction and quantity of the data collection in my own hands. In emphasizing my own play, I highlight the fact that my experiences of a computopic universe are different from other player’s experiences due to my interest in videogames as political spaces. In the sense that I am interested in disruptive conflicts as a potential rather than a widely shared experience, the approach adapts Carroll’s (1998, 271) view, who argues that identifying a specific

35 This is not to say that ethnographers ignore their influence on the field. In fact, the role of the researcher has been subjected to long and ongoing discussions, to which I come back in the next section.
structure or element in a work “is a matter of textual analysis, albeit against the cultural and biological background in which the text is produced. It is not a matter of sociological polling.”

However, to the extent to which the computopic space is non-textual and materially contingent, this approach remains very limited. More than the warnings of ethnographers that qualitative and subjective approach should not be mistaken for an invitation to dilution of the empirical data or ungrounded speculation (Marcus 2012, xiii-xiv), this contingency is an issue due to the time constraints this project is under. Many of the computopic universes analysed below offer several dozen to several hundred hours of distinct experience. In addition, the emphasis on the subjective quality of the engagement not only marks playing as a preferred method of engagement, it also gives reason to believe that other players may access different worlds and have different experiences. As a practical counter-measure, both exploration and primary data are expanded on and enhanced by additional materials on the games, such as handbooks, walkthroughs, etc., and narratives of other players. Methodologically, this does not solve the problem of partiality, but it does allow for a triangulation of the data, thus offering a stronger empirical basis for my analysis, while maintaining the primary status of my own exploration.

3.3 Subjectivity and Experience

So far, I have identified explorative play as the main method of data collection, backed and enhanced by secondary sources about the respective computopic universe. This approach puts a strong emphasis on the role of the player-researcher. My actions within a computopic universe change the analytic process not only be-

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36 In the context of qualitative social studies, triangulation refers to the use of multiple methods, perspectives, or types of data in the research process. This approach is expected to provide a better understanding of complex phenomena and subjects (see Rothbauer 2008). Summarizing the existing literature, Uwe Flick (2007, 519-520) refers to four types of triangulation: “data-triangulation”, “researcher-triangulation”, “theoretical triangulation” and “methodical triangulation. He argues that triangulation is not so much an aiding tool to strengthen validity claims (although originally designed as such), but rather an alternative to “validation strategies,” capable of elevating breadth, depth, and consistency of a methodical approach. For example, an empirical study of the significance of music in the everyday of teenagers, in which the interviews with the respective age group are complemented with a study of recent trends in popular music, allows the interviewers to ask more precise questions based on his or her first-hand knowledge, to understand the answers given better, and to respond to the answers given more adequately, thus potentially offering a deeper insight. Likewise, my exploration of the computopic space and its interpretation benefitted from the knowledge of the games and other players’ perspectives and observations.
cause my experience of these actions is part of the data, but also because my input influences the material worlds I can visit and explore—and the disruptive conflicts I am confronted with. In turn, my actions are influenced and informed by my experiences, intentions, emotions, and my skills as a player-researcher.

Here, my methodology faces a potential criticism often voiced against ethnography and auto-ethnography, which emphasizes researcher subjectivity in all “fieldwork.” Boellstorff et al. (2012, 41) defy the criticism of subjectivity in ethnographic research, arguing that “[s]ubjectivity is an inescapable condition of science; no pure realm of objectivity exists in which interests, biases, predilections, concerns, attitudes, dispositions, conceits, judgments, axioms, and presuppositions of investigators are absent and without impact. We always begin from somewhere.” On the contrary, they claim that subjectivity is vital to ethnographic rigor, because it not only makes a position for the interpretation of data possible, but also provides a basis for intersubjective understanding of the outcomes and interpretations of an analysis (41-42). Against attempts to reduce ethnography to “personal experience,” they hold that even in auto-ethnography, where the ethnographer’s action is part or the central element of the collected data, such experience is always accompanied

37 A potentially interesting but equally intricate thinker in this respect is Henri Bergson ([English 1912, French 1896] 2004), who examined the relation between our actions and the image we perceive of the material world in *Matter and Memory*. Writing at the turn of the 19th century, Bergson was not accustomed to videogames. His biological terminology and many of the scientific findings his arguments are based on seem far outdated. However, I believe that his emphasis on action and his interest in the process of determining our course of action could provide an interesting perspective for the study of videogames in general and the computopic contingency in particular. For Bergson matter is “the aggregate of images, and perception of matter these same images referred to the eventual action of one particular image, my body” (8). Thus, perception is a kind of filtering process by means of which we arrive at a number of possible actions that can be carried out on the material world by “centres of real action, represented by living matter” (21). His emphasis on the enhancing effect the development of the nervous system has on our action possibilities both in terms of options and with regards to their ‘reach’ (21) seems surprisingly compatible with my intuition about the effect repeated ‘experience’ has in the computopic space, more distant areas of which become gradually available to the more experienced player. Bergson suggests that the growing richness of this perception symbolizes a “wider range of indetermination left to the choice of the living being in its conduct with regards to things” (21). This results in a functional filtering of action possibilities, which is, apart from bodily abilities and intentions, strongly influenced by memory (or experience), which amplifies the perception and make its speedy functioning possible, while at the same time a source of all kinds of illusions (24-35). I doubt that Bergson’s analysis of our neurological processes is correct in its details, but his interest in contingency, action and intuition suggests that he might provide an interesting model for conceiving the computopic space, although this discussion has to be left for later inquiries. Already, Bergson has an direct and indirect influence on game studies where it draws on his or Gilles Deleuze’s Bergson-inspired work in discussions of action and memory (see for examples Mukherjee 2011, 2008).
by analytic expertise (43-44).

While it would be too ambitious to reflect on and discuss these issues within such demanding and broad frameworks like phenomenology or empiricism, it nevertheless seems helpful to examine this relation between experience and analysis in more detail. For Jackson (1989, 2), lived experience is itself a critical attitude or method, because “[i]t remains skeptical of all efforts to reduce the diversity of experience to timeless categories and determinate theorems, to force life to be at the disposal of ideas.” However, this framing does not deny conclusiveness and closure its place: “Lived experience accommodates our shifting sense of ourselves as subjects and as objects, as acting upon and being acted upon by the world, of living with and without certainty, of belonging and being estranged, yet resists arresting any one of these modes of experience in order to make it foundational to a theory of knowledge” (2). Based on this conceptualization, Jackson introduces his version of “radical empiricism”, which methodically

includes the experience of the observer and defines the experimental field as one of interactions and intersubjectivity. Accordingly, we make ourselves experimental subjects and treat our experiences as primary data. [...] As of our comparative method, it becomes less a matter of finding “objective” similarities and differences between other cultures than of exploring similarities and differences between our own experience and the experience of others. (4)

In addition to my general insistence on the status of the computopic as a space of experience in its own right, Jackson’s discussion provides a strong argument for treating my experience of this space as primary data and basis for my analysis. As the cited discussion of ethnographic methodology shows, this should not be taken for a claim about the randomness of the collected data, but rather as strong responsibility for approaching this data analytically. Here, the emphasis on the disruptive conflicts emerging from the Otherness of the computopic space and its expressive elements serve as analytic framework. As these conflicts have to be found actively, a similar demand for methodological rigor needs to be applied to the exploration itself, which has to balance its intentional, “scientifically interested” invasion of the computopic universe with the frivolously playful mode of gaming as entertainment, which is itself part of the expressivity of the medium. Due to the absence of any guidance in this respect, the success of this balancing or oscillating between different modes of engagement can only be measured by its results. Jackson
urges us to acknowledge the limitations of all individual experience, calling for comparison with others as a way of strengthening findings and arguments. Here, my attempts at triangulation can only provide a surrogate. Ultimately, the analysis marks a first step, hoping to invite active interrogations by other researchers and gamers.

3.4 Data Collection and Interpretation

Based on these methodological considerations, it seems possible to outline the concrete analytic process from data collection to interpretation and the methods applied in each step. With regards to data collection, I have identified repeated playfully-invading explorations of the computopic as central element. As is the case in participatory observation of virtual environments (see Boellstorff et al. 2012, 69), access to the computopic can be very time intensive and demanding in terms of player skills. Insofar as computopic worlds only exist if they are enacted, this means that the skills of player-researcher determine the range of worlds and places he or she can access. Since these worlds exist only temporary during gameplay—although a specific place or situation may be revisited via save-files—they are transient spaces.

With regards to the first issue of skills, I would describe myself as an average videogame player. My skills have certainly increased over the course of this project, but in several cases, repeated attempts at a stage or situation were necessary to proceed in difficult games. However, where the lack of skills and the time consuming practice of repeated attempts threatened a fruitful and sufficient exploration of a computopic universe, I have resorted to walkthroughs and hints in order to gain more insights. As mentioned above, such walkthroughs themselves, among other secondary sources, have proven to be helpful additional materials for the analysis.

In terms of the second problem of the transient, temporary nature of computopic worlds, participatory observation usually relies on fieldnotes, which are used as primary data. Boellstorff et al. (2012, 82) urge their reader to be rigorous in their documentation: “If we fail to write it down, it might as well not have happened!” While this may certainly be true for social situations in which retrospective notes are the only option, videogames and digital media in general are compatible with data recording of various kinds. In this project, I counter the transient nature of the
computopic by recording my gameplay via a video capturing device.\footnote{Specifically, I used the \textit{Elgato game capture HD}, which is compatible with the PS2 and the PS3, and offers several options for recording quality. This is necessary, because I focus on console games rather than computer games, which could be captured with respective software.} This allows for later comparison between different worlds, as well as playback of particularly interesting moments and sequences.

Yet, such recordings do not capture experience of the player, with its spontaneous, emotional, and physical quality. In order to secure a channel for additional comments on the experience and tentative thoughts and impressions of the games that does not interfere with the flow of playing—as pausing to take notes would—I used a headset connected to the audio out of the game screen\footnote{The \textit{Asus VE 247} is one of the few full-HD monitors featuring both an HDMI-in and an audio-out port necessary for this setup.} and the microphone plug of a voice-recorder. I have sketched the setup in Figure 2.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{setup.png}
\caption{Technical setup for game exploration.}
\end{figure}

This setup facilitates clear in-game sound, without causing significant interference with my own audio-comments. Whereas using the audio-comment function that comes with the capturing device merges both audio streams, the
advantage of the separate audio recording is the guaranteed clarity of both feeds, as well as the relatively small size of these comments, which allows for separate review. One of the disadvantages is, however, that synchronizing requires conscious effort and that multiplicity of devices introduces another potential source of corruption and technical problems.40

Following the initial data collection, I transcribed the audio comments on important sequences and worlds, and juxtaposed them with the video footage where necessary.41 This resulted in what Pavel (1986, 50) would call “books” about fictional worlds. Separating the states of affairs in a world from the statements describing these states of affairs, Pavel draws attention to the relation between both and to the limitations of representing fictional worlds, at the same time raising the question how these worlds are or can be represented to us, and which of their aspects might be difficult or impossible to describe. While keeping these limited capacities of video sequences and transcripts to convey the experience of videogame action in mind, I believe that these methods of documenting proved to be adequate means for making both the visited worlds and my individual and subjective experience of the respective computopic universes accessible to the analysis in a more permanent, textual form.

During the course of playing, analysing, and writing, I supplemented my own “books” with others, most notably secondary sources such as official and fan-based walkthroughs, online accounts of the games and game worlds in question, discussions in magazines, and on developer websites. These additions provide a stronger basis for my arguments, expand them or offer insights into and guides towards worlds or places I have not visited myself (yet). However, they are not aimed at covering the wide range of worlds and information about these worlds available on- and offline. While helpful as additions, these secondary sources are far from systematically collected data. Whether a more systematic approach leads to different results is a question for critical review and future studies.42

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40 In particular, the capture device was subject to some fluctuation and instability in the early stages of the project. Furthermore, empty batteries in the voice recorder interrupted the audio-recordings a few times.

41 Initially, I expected one of the benefits of this method to be the possibility to merge the video/audio feed with the audio comments into a multi-layered video-document that could be analyzed in detail. Due to the length of the explorations and the amount of data they generated, this idea quickly proved impracticable for all examples.

42 Insisting on the necessary partiality of any account of the fictional, Pavel (1986, 53) himself gives reason to remain sceptical about the possibility of a full account of a computopic universe or even one of its worlds. On the contrary, he argues that in some cases, language
to schematize the analytic process in Figure 3.

![Figure 3. Analysing computopic universes.](image)

The search for disruptive conflicts was based on the theoretical framework developed above. As the figure indicates, the abstract expressive potentials of the computopic space were examined in concrete computopic universes and worlds. A flexible and emergent process of “finding, creating, and bringing thoughtful, provocative, productive ideas to acts of writing” (Boellstorff et al. 2012, 159), the analysis was conducted in consultation of various existing findings about the respective works, about games in general, and, most importantly, against the background of a wide range of works from the field of political philosophy.

*can be too limited to describe a world or universe. “An idiom containing a finite number of constants and no variables cannot describe a universe displaying an infinite number of beings; a language lacking quality predicates will prove inadequate for a universe containing colors.”*
3.5 Intersubjectivity

I have mentioned intersubjectivity as an important principle in ethnography and qualitative research in an earlier section. As such, intersubjectivity does not only require a structured, analytic approach to the field and the interpretation of data, it also requires transparency. Given the strong factor of subjective interpretations and the lack of rigidity in the process of qualitative media research, this is a common goal with qualitative projects. For example, Bernd Schorb and Helga Theunert (2000, 40) emphasize the importance of strict and transparent rules in qualitative media research, and of the effort to make the research process visible (accessible) to external scrutiny. This project does not satisfy the strict demands these authors make, in particular because it does not meet their requirement that interpretations have to be negotiated between multiple researchers in the analysis. However, this should not suggest that their demands, or, more generally, the methodological principles of qualitative research, do not have to be taken seriously in a project that employs a similar explorative and interpretive approach.

Ensuring transparency does not mean to confront the reader with the collected data and the field notes I have made during the exploration. Boellstorff et al. (2012, 82) give a good reason against such practice, claiming that “it is the job of researchers during analysis and writing to select and contextualize data that will support their arguments, so that readers are not overwhelmed by a flood of detail.” This would certainly be the case here, as my primary data consists of approximately 350 gigabyte of raw video footage and 2 gigabyte of audio data, with a recorded play time of more than 150 hours.43

However, this does not imply that there is no meaning in providing insight into the analytic process beyond the textual narrative of the results. Several reasons suggest the opposite. First, the already mentioned openness of the computopic means that, theoretically, even players familiar with the games I discuss may not have encountered the situations I based the analysis on—or may be able to relativize or refute my generalizing claims based on their alternative experiences. Secondly, I refer to a number of games, which are not available outside of Japan. Thirdly, I am committed to communicating the results of this thesis not only to videogame experts, but also to an audience not familiar with games. Aiming to increase transparency, intersubjective understanding and openness in all these

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43 The initial exploration of a wide range of games, including some of the examples, is not included in this number, because I did not record this stage.
This project commits to exploring non-textual ways of presentation in the shape of a video documentary of crucial aspects in each computopic universe along with the written interpretation. Figure 4 shows the division of the screen and the function of its parts.

<table>
<thead>
<tr>
<th>chapter title</th>
<th>content description and commentary</th>
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<tr>
<td>example no.</td>
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<td>A. Section 1</td>
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<tr>
<td>additional information about current content</td>
<td>video feed</td>
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<td></td>
<td>subtitles where necessary</td>
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Figure 4. Screen division and elements of the video examples.

Each example includes the chapter title, a number with which it is referred to in the text, and a title. The left column contains an overview of the content of the example, as well as additional information about the respective content where helpful. Most of the right column is filled with the video feed. On top, I have included short explanatory comments on the scenes. Below the video feed, subtitles are given where the content is Japanese only. These subtitles are white, if they are taken from English game versions or respective dialogue scripts, and orange, where they are my own translation. Subtitle sources are given in a footnote with the first example that includes the respective game.

Some of the sequences are taken from the original data collection process, while others have been recorded deliberately for the purpose of showing aspects of a game. Although this account is selective and sometimes involves a considerable amount of manipulation and intentional performance, I nevertheless tried to subscribe to the principles that guide documentary film, such as authenticity and truthfulness. In this, I follow Louise Spence and Vinicius Navarro’s (2011, 2) argument that “what is at issue is not so much ‘Is it true or untrue?’ but rather ‘How
is actuality treated in order to sanction the documentary’s claims to be telling the truth?’ And ‘How does the need to tell an effective story or make an argument encourage one kind of treatment over another?’” They conclude that there is no intrinsic conflict between aesthetics and nonfictional representation (3).

I would like to add Carroll’s (1996a, 284-285) claim that selectivity is compatible with objectivity, if the relevant standards are maintained. Against the current of poststructuralist attempts to deconstruct the difference between fiction and non-fiction film, he argues that this distinction has to be maintained as a distinction between “the commitments of the texts, not between the surface structures of the texts” (287). In particular, Carroll rejects the sceptics’ critique that “the nonfiction film does not represent the world objectively, but proffers a surrogate superaddition in place of something called ‘lived experience’” (289). Convincingly arguing that it makes no sense to assume that a film can stand in for any lived experience in the first place, he proposes instead to emphasize the constructive act of selecting, which creates new meaning and knowledge, including the discovery of novel causal relationships which cannot be reduced to a narrative distortion of reality, because they are often grounded in the empirical (290-291).

With these arguments in mind, the attempt to include and experiment with alternative modes of presentation and respective media in this thesis is not only geared towards transparency and easier access to broader audiences. It also experiments with new ways of constructing meaning, taking videogames and the claims I have made about their non-textual quality seriously. As Jackson (1989, 186) remarks in a different context, “[r]ather than pretend there is no difference between science and art or argue that one can be epistemologically privileged over the other, we have to learn to play them both off against the other.” I believe this can be said about videogames as well. Rather than pretending that the experience of playing games can be described sufficiently or exhaustingly in academic prose, we should aim to find ways in which analytic accounts can be complemented and played off against other modes and channels of expression. In this project, the visual and sonic expressivity of the documentary videos creates a distinct alternative perspective on the issues at hand, thus complementing and adding to the interpretation and discussion significantly.
3.6 Conclusions

In this chapter, I have discussed the methodological difficulties the computopic space confronts us with and have offered a set of methods based on this discussion. Drawing on ethnography and qualitative research, I have argued for an active, playfully-invading approach to computopic universes that turns my experience into a central element of data collection. Acknowledging my subjective, physical and temporal limitations as a player-researcher, I have proposed to confront them as truthfully and faithfully as possible, both by enhancing my play with external sources, and by reflecting on the influences my own actions and subjective experiences have on the data collection and the analysis. Based on this, I have outlined the technical setup for the data collection and described the analytic process. Lastly, I have argued for an exploration of non-textual modes of presentation and explained my use of video examples throughout the thesis.

This approach does not solve the problems of the computopic contingency, nor can it fully account for the experiential dimension of gaming. However, it aims to engage with the subject of this thesis as truthfully as my own limitations and those of this project allow. By way of a brief reflection on the overall process, I would like to point out that initial observations made during the data collection process were of high value for the interpretative process, which underlines the importance of the voice recorder. The fact that the pool of data involved not only extensive visits to a singular computopic world, but also several different instances of a universe—sometimes multiplied by secondary sources—granted access not only to momentary computopic conflicts within an individual world, but also to such conflicts that develop across multiple worlds or over longer periods of time—in fact sometimes across multiple titles. This shows the profound expressive potentials of the computopic and supports the initial theoretical framing with its insistence on universal contingency.
4 SF as Starting Point

[T]he science fiction narrative […] demonstrates the incompatibilities existing between our presence in the world and the various levels of a certain anesthesia in our consciousness that, at every moment, inclines us to see-saw into more or less extensive absences, more or less serious, even to provoke by various means instantaneous immersions in other worlds, parallel worlds, interstitial, bifurcating, right up to that black hole, which would be only an excess of speed in these kinds of crossings, a pure phenomenon of speed, abrogating the initial separation between day and night. (Virilio 2009, 85)

In part I, I established the theoretical framework around the notion of the computopic and presented a methodological approach to deal with the various challenges this framework presents. What is missing from these elaborations is a sense for the material basis for this project. This is the task set for part II. As a first step, the following chapter aims to define the scope of titles for the analysis, discussing and applying various selection criteria to the market of Japanese videogames. Given the explorative character of this study, I argue that the genre of sf, which makes novelty its central aim without losing touch with our empirical reality, can be a helpful guide in the initial search for stimulating examples. As mentioned, this project is based on two presuppositions. Firstly, I focus on Japan as a particularly dense, vivid, and globally successful market and geographical field for videogame development and consumption. Secondly, I limit the analysis to single-player games and modes, in order to reduce complexity in an already complex field. Other restrictions and limitations will be referred to where adequate.

4.1 Science Fiction as a Field

In the first chapter, I have developed a perspective on videogames as a space of Otherness termed the computopic. For inspiration, I drew on literary theory and the study of science fiction and utopia, because these genres share the enclavistic character of play and games. However, if, as I have claimed, the computopic is always already a space of Otherness, the question is whether the content of a computopic universe has an influence on its potential to host disruptive conflicts.
Adorno’s emphasis on Phantasie suggests that any cultural product or work of art can potentially stimulate our autonomous thought. However, to follow this suggestion would go far beyond the boundaries of this project. Jameson’s analysis provides a narrower perspective, because he links disruption to the content of science fiction and utopia as much as to its form. The underlying assumption shared by many science fiction authors is that sf derives its critical momentum from its status as scientific fiction and the link this status creates to the empirical reality of its readers. I adopt this assumption in my analysis for two reasons: Firstly, it provides a way of limiting the initial exploration to a more or less consistent, contained field. Secondly, while not granting sf any exclusive rights on disruption, I do believe that this genre, in the way in which I define it, offers the most readily available and immediately relevant conflicts.

Tracing this critical immediacy to its sources, the following sections offer a stronger basis for the preference on science fiction and at the same time qualify the sense in which I deploy sf in the selection of examples. While drawing on various attempts to define the genre, I do not intend to add another definition. Rather, the following discussion of some major characteristics of sf serves as a rough, flexible guideline for the consecutive approximation to the field of Japanese videogames.

4.2 Plausibility

Comparing SF to critical theory, Carl Freedman (1987, 188) argues that both deploy critique “in order to clear space upon which positive alternatives to the existent can be constructed.” The question, why this tendency is particularly strong in science fictional literature, is not easy to answer, because theorists characterize sf variously. As Chris Goto-Jones (2010, 22) observes, “SF is […] a difficult terrain, and its dimensions are continuously contested. It exists in a condition of peril within broader realms of literature.” I have already mentioned Suvin’s influential definition of sf as the genre of cognitive estrangement based on the novum (see chapter 2, p. 10) In contrast, recent definitions of the genre appear rather vague. Adam Roberts (2006, 148), for example, concludes his analysis as follows:

Here is exactly where we find science fiction, at the point a stick turns into a horse. It might be said that all literature, or all art, does this; but I think that SF is much more playful (in this profound sense) than other literature. It is predicated upon a fundamental hospitality to otherness,
to the alien, where other aspects of culture compromise. SF is a metaphorical discourse in a particular sense, the cognitive, imaginative, affective, creative sense that Ricoeur opens up. Its metaphor is aesthetic, which is to say poetic and speculative.

Against Suvin’s emphasis on cognitive estrangement, Gregory Renault (1980, 116) points out that all fiction has estranging capacities. Thomas Pavel (1986, 62) gives reason for a similar objection when he states that, in general, “[w]orks of fiction more or less dramatically combine incompatible world-structures, play with the impossible, and incessantly speak about the unspeakable.” Yet, there seems to be a difference in the source and quality of the estrangement between sf and other genres. According to Suvin (1979, 7), “SF is as fully opposed to supernatural or metaphysical estrangement as it is to naturalism or empiricism.”

It might be helpful to examine this position between the supernatural and the natural in more detail. Renault (1980, 130) argues that Suvin’s attempt to isolate SF from the latter is flawed because it is based on a simplification:

Most significant in Suvin’s discussion of fantasy and SF is his implied distinction between empirically possible and impossible Others, ideal possibility versus ideal impossibility, a distinction corresponding to that between scientific and utopian socialism in the Marxist tradition. Unfortunately, Suvin’s use of this important distinction suffers from a confusion regarding elements of figural and literal discourse. Because they are non-empirical, imaginative constructs, all literary devices, as figural signifiers, have the same ontological status as lies. By attempting to base the “cognitive” validity of SF and fantasy upon the possibility/impossibility of the devices or elements utilized in a particular literary strategy, Suvin confuses the function of the referent in literal experience with that of the literary element in fictive signification. As many critics point out, SF’s fidelity to science consists of merely “maintaining the illusion of plausibility,” a function of the larger task of literary realism.

Interestingly, Suvin himself is rather vague about the status of possibility, suggesting that the quality of sf does not necessarily depend on its scientific rigor. This has to do with the position of the science fictional novum, or, “the point at which the SF text distils the difference between its imagined world and the world which we all inhabit” (Roberts 2006, 17). For Suvin (1979, 64-65), “[t]he novum is postulated on and validated by the post-Cartesian and post-Baconian scientific method. This
does not mean that the novelty is primarily a matter of scientific facts or even hypotheses.” Here, Suvin puts the emphasis on the scientific scrutiny of author and reader, whereas the novum itself may originate in non-scientific imagination.

More explicitly, Japanese writer Abe Kōbō (2002, 343-344) argues that SF is grounded in a “Vitality of Pseudo-Science,” and that “it is a separation from science that can open new vistas and new possibilities for science fiction.” Like Suvin, Abe suggests that the estrangement in literature is not so much based on scientific fictions, but rather on the scientific method of sketching out the consequences of a postulated hypothesis (or novum). “In literature, proximity to discovered facts is far less important than adherence to the internal laws of discovery itself. In other words, it’s a question of forming a hypothesis and then seeing to what extent you can erect a new system of rules, utterly different from the existing rules of our everyday lives” (346).

This brief discussion suggests that the ‘possibility’ and validity of sf, as opposed to the ‘impossibility’ of fantasy, does not hinge on a strict sense of science. Discussing the problem of possibility in Fictional Worlds, Pavel (1986, 46-47) argues that a narrow understanding of possible fictional worlds as only those worlds which share all members with the real world is impractical. In most cases, the relation between a fictional world and an underlying world A, for example the empirical world, cannot be verified, because most fictional worlds are abstractions and as such do not represent all their members or laws. To circumvent this problem, he suggests that one regards the vague relation of possibility as a function of the reader’s “aesthetic intuition.” Granting the “really real world” ontological priority over fictional worlds, Pavel proposes to understand fictional worlds as secondary universes in relation to our empirical reality as the primary universe (57). This dual structure, he argues, can further be categorized into isomorphic or “existentially conservative” and non-isomorphic or “existentially creative” relations. The latter contain elements that lack a correspondent in the primary universe and are therefore referred to as “salient structures.”

This model entails a more nuanced understanding of the ontology of possible fiction than both Suvin and Renault apply, and reveals the inherent contradiction of the genre of sf, which might be said to be the source of its vitality: if the well-accepted concept of the novum dominates a fictional world, a given sf world can only be a secondary universe in a salient structure. At the same time, sf maintains a link of possibility—cognitive validation (Suvin) or aesthetic intuition (Pavel)—
to our empirical reality. Freedman (1987, 186-187) elaborates this notion of possibility in his analysis of the similarity between sf and critical theory, arguing that this similarity is a matter of shared perspectives [...], of the dialectic standpoint of the SF tendency, with its insistence upon historical mutability, material reducibility, and, at least implicitly, Utopian possibility. In a sense, SF is of all genres the one most devoted to historical specificity: for the SF world is not only one different in time or place from our own, but one whose chief interest is precisely the difference that such difference makes, and, in addition, one whose difference is nonetheless contained within a cognitive continuum with the actual (thus sharply distinguishing SF from the irrationalist estrangements of fantasy or Gothic literature, which secretly work to ratify the mundane status quo by presenting no alternative to the latter other than inexplicable discontinuities).

Whether we want to embrace Freedman’s terms or not, his characterization of sf suggests that the “aesthetic intuition” about its possibility is grounded in a sense of continuity with our empirical reality. In this sense, sf targets an intuition about the possibility of imagining or even realizing the alternative it presents, rather than the correctness of its scientific assumptions. Well-known sf and fantasy author Orson Scott Card (2001) promotes a similar understanding. He insists on a shared epistemological framework of all speculative fiction, which “by definition is geared toward an audience that wants strangeness, an audience that wants to spend time in worlds that absolutely are not like the observable world around them” (20), claiming that both “science fiction and fantasy stories are those that take place in worlds that have never existed or are not yet known” (18). Yet, Scott Card distinguishes between the two, claiming that “science fiction is about what could be but isn’t; fantasy is about what couldn’t be” (22).

The above discussion suggests that sf can be characterized as a genre of not-yet existent but possible worlds. Importantly, this judgment is, as Scott Card emphasizes, made by the reader. Suvin’s reference to “cognitive validation” suggests a similar understanding. In this sense, the possible not-yet does not deny the
importance of the reader’s subjectivity—and, one may add, his or her cultural background and ideological or religious beliefs. However, it does entail a sense of continuity with our empirical reality. In order to bring both factors together and to avoid confusion with other notions like possibility or the scientific, I suggest calling this relation plausibility. While sharing the commitment to Otherness with fantasy, the latter threatens any intuitive plausibility because it is “existentially creative” beyond the technically possible. Sf, on the other hand, can be regarded as a deliberate attempt at balancing possibility and Otherness—conservative and creative elements—in such a way as to afford its fictional alternative immediate social and political relevance.45 This direct, explicit addressing of the reader makes sf a particularly promising starting point for an analysis of the political potentials computopic space affords.

4.3 Tendency and Banality

I would like to make two additions to this characterization of sf in the context of videogames. The first concerns the relation between possibility and impossibility. Pavel (1986, 49) regards worlds as impossible, if “[t]he presence of contradictions effectively prevents us from considering fictional worlds as genuine possible worlds.” Such logical or technical contradictions are based on a primary world A, which serves as standard of comparison (48). In the case of sf, this evaluation is based on our empirical reality. In the context of videogames, however, the notion of contradictions is problematic, because in most cases, their Otherness is experienced as contradictory at some level.

Renault seems to simplify Suvin’s discourse. True, Suvin does not focus on the reader directly. In this sense, the centrality of the author and his scarce references to the necessity of validating the novum’s work cognitively may be regarded as neglect. However, it seems crucial to point out that his conversion of “science fiction” into “cognitive estrangement,” like the notion of “disruption” applied by Jameson, can be read as a decisive step away from a formal definition of the genre, towards a conceptualization of its political possibilities in consumption and thus for the reader—who else could be estranged.

Where Frederic Jameson refers to sf’s necessary failure to invent the absolute Other, he seems to address not only the limitations of human imagination, but also the genre of sf and its critical potential itself, in the sense that an absolute Other would risk to fail stimulating our radical imagination precisely because it would omit the reason for embarking on something new in the first place—a reason which, at least for Jameson, can only lie in a dissatisfaction with the present. In this sense, Jameson’s remark on the impossibility of absolute Otherness—which I claim is surpassed by videogame expression in a certain, limited sense—may be understood as an attempt to secure the critical and political potential of SF alternatives within the boundaries of our enlightened, ‘scientific’ society.

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Juul (2005, 123-130), for example, discusses several incoherences and contradictions, such as multiple lives or impossible physical phenomena, arguing that players usually make such worlds coherent by referring to the game rules. In his example, the multiple lives granted to the player character Mario in *Donkey Kong* are not plausible—in the above sense of the word—and may only be explained by referring to the significance this rule has for the gameplay. “With only one life, the game would be too hard” (130). In general, videogames are intended to be playful and entertaining much more than they are meant to be plausible. In addition, they frequently mix genres, themes or signs in contradictory ways. Juul concludes that videogames are *Half-Real*, because they combine real rules with fictional worlds (1, 202). This suggests that even science fictional games might not fully withstand the plausibility test. Even if some omissions in videogames are simply abstractions, it would be challenging to argue that features like unlimited repetition of death and rebirth, the ability to save games, to carry heavy weight or large-size objects, etc. is continuous with our empirical reality.

Yet, I believe that the idea of an “aesthetic intuition” about plausibility, on the grounds of which the player may choose to ignore some of the elements in favour of an overall tendency, is useful. Here, I follow Freedman (1987, 181-182), who discusses the issue of clear-cut distinctions between fictional genres and suggests we circumvent this problem by displacing the category of genre from a static and classificatory to a dialectical sense. A literary genre—SF or any other—ought to be understood not as a pigeon-hole into which certain texts may be filed and certain others may not, but rather as an element or, still better, as tendency, which is active to a greater or lesser degree within a literary text which is itself conceptualized as a complexly structured whole. Accordingly, there is probably no text which is a perfect and pure embodiment of SF but, on the other hand, there are perhaps relatively few texts which lack the SF tendency altogether. […] *Star Wars* might be described as a work in which the SF tendency is visually strong but conceptually weak. It follows that, in the strictest sense, it is incorrect to say that any given text “is” or “is not” SF. But it is nonetheless justifiable to make an at least provisional discrimination on the basis of whether, in any actual text, the SF tendency is sufficiently strong to be considered dominant.
Freedman’s proposal offers a practical solution to the problem of identifying “properly plausible” works for the analysis. In the selection, I follow his suggestion and identify works as sf if I intuitively expect their tendency towards science fictional plausibility strong enough, even if they are not plausible in all aspects.

The second addition concerns the problem of popularity. Renault points out that Suvin’s exclusive emphasis on “cognitive estrangement” implies an elitist, intellectualizing focus on high culture. Suvin (1982, 21) himself proves Renault right in a later article on the range of sf, in which he cautions us against a tendency towards substituting the “radical novum” with “a slumming sensation that does not give rise to a parable on or counter-project to the established power.” Against this exclusive focus on sf as an intellectual project of resistance, Renault (1980, 135) argues that textual signification is always a dialectic of the sensual and intellectual, and that “[c]ulture as cognition and affect combined, both deadly serious and playfully parodic, grounds political ambivalence; suppress this dialectic in theory or practice, and the real source of resistance is lost.” In his view,

SF […] strongly combines the fantasy “escapist” restorative function of mass culture with the instructive function of high culture. From this perspective we can see how SF can be entertaining and thought provoking at the same time. […] While prurient and escapist interests characterize the body of SF works, functionally such concerns are the vehicle for those critical cognitions SF offers. (137)

Renault’s insistence on a broad view on sf and its “playfully parodic” elements is particularly important in the context of a playful, experiential medium. In videogames, the tension between frivolous entertainment and education, between sensual pleasures and intellectual endeavours, is not only played out in a game’s fictional content or its rules, but also in serious and spontaneously playful action motivated by intellectual and emotional factors alike.46 Insofar as this tension itself might generate productive conflicts, selection and analysis have to be open not only to tendency rather than strict boundaries, but also to frivolous entertainment just as well as to serious intellectual content.

46 The label “serious games” symbolizes the attempt to derive something ‘meaningful,’ socially accepted from a medium that is also just as much a silly and frivolous means for ‘killing time’ and for ‘meaningless virtual killing.’ Examining recent currents in game studies, McAllister and Ruggill (2010, 55) go as far as to say that, in times where video games are thus celebrated as meaningful and serious, “anamnesis” (the loss of forgetting), meaning a return to the “less valued” moment of videogame play, may be the only fruitful course for game studies in the future.
In the case of videogames, Renault’s emphasis on mass entertainment is important for yet another reason. Given the high production costs of contemporary professional games, it is fair to say that the medium relies on popularity more than literature.\(^{47}\) Although the search for disruptive conflicts has distanced my theoretical aim from Noël Carroll’s perspective on mass art, his emphasis on accessibility and the importance of the audience is crucial for the following analysis. This is not to say that minor works cannot be expected to be equally disruptive. Against the background of the importance of playful frivolity in videogame expression, it does, however, demand for an unbiased (but not uncritical) view on mass-produced videogames. For the purpose of this exploration, I regard popularity as a helpful indicator in the initial search for interesting examples, leaving the questions about the quality of a work and its dialectic, ambivalent status between the sensual and the intellectual for the analysis. The following approach to the field of sf takes this perspective as a starting point, focusing on popular titles as well as less prominent but acclaimed works.

4.4 Sf in the Japanese Market

With these qualifications in mind, the following section aims to identify the recent shares of popular sf games in the Japanese videogame market. This means focusing on console games rather than the minor area of computer games, because the former have dominated the commercial scene until fairly recently, when they were challenged by cell phone games.\(^ {48}\) Popularity is usually measured in sales numbers.

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\(^{47}\) The fact that games target mass consumption is not to say that this development is not ambivalent. Historically, the rising general popularity of videogames has both allowed for a wide range of experimental games to appear on the market, and, more recently, put increasing constraints on new productions, because the necessity to sell large quantities suggests a tendency towards established ideas and franchises. For Japan, Hichibe (2006, 68, 2009, 171) points out that the increasing development costs for console games force the designers more and more to stick with successful series and known formats, instead of experimenting with new ideas. While the historical production conditions of videogames are not subject to closer scrutiny in this thesis, it should be pointed out that the analytical focus on titles which were developed in the late 1990s and early 2000s or are part of a larger, long-running franchise, is not coincidental.

\(^{48}\) This choice should not imply that Japanese computer games may not be an intriguing, highly politically charged area of research and in some cases, reach astonishing levels of popularity. On the contrary: in Japan, computer games have been a vivid field of independent productions and amateur activities for a long time, and at the same time constitute a crucial playground for future game designers and programmers which, to some extent, exists outside of market logics and societal restrictions such as videogame rating and censorship. However, due to its subcultural status, this field is less accessible and thus requires a very
However, in the case of games, statistics need to be consulted with care, as the industry is generally reluctant to reveal their own figures. Some indication can be gained from data published by the industry itself, such as the charts found in the annually released CESA Games White Paper. In addition, the online portal vgchartz.com provides estimated annual records of the 100 top-selling games in Japan.

SF is a well-established theme in the European and U.S. American market, where the pursuit of realistic and plausible worlds seems to be one major direction for high-budget productions such as Call of Duty or Grand Theft Auto, to name just a few popular examples. The Japanese market, however, appears to be less invested in the idea of natural grass movement and exact weapon reconstruction.\textsuperscript{49} Even major titles are far less dominated by concerns with realism. For example, most of the Japanese role-playing games, which have developed into a globally recognized subgenre of role-playing games, are characterized by a mix of fantasy and sf elements.

This tendency impacts the prominence of sf in the statistics. Under the rubric "Past domestic million shipment titles," the 2012 CESA Games White Paper (Unozawa 2012, 228-233) lists 204 titles, which I have categorized in Table 1 on the following page.\textsuperscript{50} The table shows that more than half of the titles belong to dominantly ‘implausible,’ or fantastic franchises, such as Super Mario, Dragon Quest, Final Fantasy, or Pokémon. Of the remainder, 51 titles are simulations, 14 are puzzles and edutainment, and 17 titles are implausible or abstract, but do not belong to any of the other categories (music games, titles like Doraemon). Among 204 videogames sold more than one million times in Japan, a total of 7 titles shows a sufficient tendency towards sf, namely Chrono Trigger and RESIDENT EVIL 2 (both rank 65, with 2.030.000 units), Resident Evil 3 Nemesis (rank 111, 1.450.000 units), XEVIOUS (rank 141, 1.270.000 units), Resident Evil (rank 164, 1.110.000 units), Parasite Eve (rank 186, 1.060.000 units), and Metroid (rank 191, 1.040.000

\textsuperscript{49} On a technical level, Nintendo has withdrawn from the race for ever stronger consoles—more apt to represent realistic environments and complex physical processes required by most of the high-budget productions mentioned above—instead aiming for casual gaming and new consumers with the DS and the Wii. The latter in particular led to a series of games emphasizing bodily movement, which are arguably much more ‘real’ than any realistic visual representation, and, not by chance, contributed to a blurring of the categories of videogames and sports and fitness.

\textsuperscript{50} According to the 2012 White Paper (Unozawa 2012, 233), the list is based on the responses of four companies to a research survey conducted for all titles released since 1983, as well as earlier data. Titles are given in Japanese and English in the original.
One could argue for including *Final Fantasy VII* (rank 14, 4,000,000 units), because of its strong sf tendency, although most of the *Final Fantasy* franchise shares the general tendency of Japanese role-playing games to mix sf with fantastic features. However, this does not change the fact that sf play a minor role on the market.

The picture looks slightly more diverse when considering the annual 100 top sales in Japan from 2000 to 2011 as listed by vgchartz.com (2012b). Apart from

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51 A good example of this mix of fantasy and sf is the game *Makai Tōshi SaGa* [*The Final Fantasy Legend*] of which the English Wikipedia (2012) entry remarks that “the game features equipment from different genres, ranging from magic and swords of fantasy to plasma rifles and chainsaws of science fiction.”

52 According to their own description, vgchartz.com (2012a) employs a broad range of
the numerous ambiguous role-playing games (hereafter rpg), these charts display
a more or less stable 10-15 percent of sf titles for each year. I have compiled the
popular sf titles found in this data between 2000 and 2011 in Table 2.

Table 2. Sf titles among the top 100 sales between 2000 and 2011 as listed by vgchartz.com.

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<tbody>
<tr>
<td>Gundam</td>
<td>39</td>
<td>Dino Crisis 2 (PS)</td>
<td>2000</td>
</tr>
<tr>
<td><strong>Super Robot Wars</strong></td>
<td>19</td>
<td>Extermination (PS2)</td>
<td>2001</td>
</tr>
<tr>
<td>Mega Man</td>
<td>15</td>
<td>Zone of the Enders (PS2)</td>
<td>2001</td>
</tr>
<tr>
<td>Resident Evil [Biohazard]</td>
<td>14</td>
<td>Disaster Report (PS2)</td>
<td>2002</td>
</tr>
<tr>
<td>Metal Gear Solid</td>
<td>10</td>
<td>Metroid Fusion (GBA)</td>
<td>2003</td>
</tr>
<tr>
<td>Armored Core</td>
<td>5</td>
<td>Classic NES Series: Xevious (GBA)</td>
<td>2004</td>
</tr>
<tr>
<td>Ace Combat</td>
<td>5</td>
<td>Famicom Mini: Star Soldier (GBA)</td>
<td>2004</td>
</tr>
<tr>
<td>.hack</td>
<td>5</td>
<td>Global Defence Force (PS2)</td>
<td>2005</td>
</tr>
<tr>
<td><strong>Sakura Wars</strong></td>
<td>4</td>
<td>Lost Planet 2 (PS3)</td>
<td>2010</td>
</tr>
<tr>
<td>Another Century’s Episode</td>
<td>4</td>
<td>God Eater (PSP)</td>
<td>2010</td>
</tr>
<tr>
<td>Macross</td>
<td>4</td>
<td>Gods Eater Burst (PSP)</td>
<td>2010</td>
</tr>
<tr>
<td>Custom Robo</td>
<td>3</td>
<td>Steins;Gate (PSP)</td>
<td>2011</td>
</tr>
<tr>
<td><strong>Star Fox</strong></td>
<td>2</td>
<td>Black * Rock Shooter: The Game (PSP)</td>
<td>2011</td>
</tr>
<tr>
<td>Front Mission</td>
<td>2</td>
<td>Chikyuu Boueigun 2 Portable (PSP)</td>
<td>2011</td>
</tr>
</tbody>
</table>

| total franchise/series | 131     | total individual titles | 14 |
| added total            | 145     | scope of the thesis     | 119|

The data indicates that the market share of Japanese sf videogames is mostly dom-
inated by a few large and long-time franchises on the one hand, and the theme of
giant robots, or “mecha”53, on the other. Adapting popular anime content, the titles
belonging to *Gundam*, *Another Century’s Episode*, and *Macross* amount to almost
one third (47) out of a total of 145 games. Together with other mecha series like the
*Custom Robo*, *Armored Core*, *Front Mission*, and *Mega Man*, these games represent

methods to estimate sales numbers, such as polling with gamers and retailers, statistical
trend fitting, price analysis, and industry consultations.

53 Mecha is the English version of the Japanese term meka, itself a short form adapted from
the English terms “mechanism” and “mechanical.” According to the English and Japanese
entries in Wikipedia (2013k, l) the term is widely used to refer to machines in Japan. In
the context of Japanese popular culture, it commonly refers to the science fictional device
of robots controlled by human pilots. Early prominent examples of mecha are the manga
*Mazinger Z* published by Nagai Gō between 1972 and 1973, or the tv anime series *Mobile
Suit Gundam* from 1979, which developed into one of the most influential cross-media
franchises in Japan. I use the term mecha throughout this analysis to refer to such robots.
the strongest current in the field of Japanese SF videogames. Other themes and series like Resident Evil [in Japan released as Biohazard] or .hack are less prominent, and the number of successful individual titles is relatively small.

In the table, the number of titles which meet the sf-requirement of this thesis does not include the Super Robot Wars series, the Sakura Wars series, and the Star Fox games. This decision is based on the ambiguity towards sf these series display. Whether in the shape of magical or spiritual powers the mecha or their players possess in Super Robot Wars and Sakura Wars, or by replacing human pilots with animal characters, like in Star Fox, these games break openly with the demand for plausibility identified as a major requirement for sf.

This preliminary selection is supported and refined by two additional factors. Firstly, it was tested, verified, and adjusted during a long-term research stay in Japan. This trip gave me the opportunity to gather information about potentially interesting games in textual resources as well as in random, explorative interviews with players and videogame researchers, who contributed greatly to the insight I have gained so far into the field. Easy access to a broad range of games, some of which were never released outside of Japan, allowed me to pursue the various leads in a timely and in-depth fashion. This pre-analytic phase not only supported the choice of some of the abovementioned titles for the analysis, thus lending some support to the vague statistical data. It also resulted in several new discoveries, some of which have made their way to the consecutive chapters. To give an overview of the scope of this thesis, I have combined the statistical results with the pre-analytic exploration in Table 3, and grouped them according to the attention they are given in the analysis.

In Table 3, the discoveries from my fieldwork are highlighted in grey. From top to bottom it lists the games analysed in detail, titles only mentioned briefly, titles not mentioned due to their lack of potential or simply due to time constraints, and titles excluded from the closer range due to platform issues. The last category reflects several adjustments to the selection. Given the difficulties involved in recording handheld console gameplay, I have excluded all titles only or dominantly available for portable devices in order to maintain methodical consistency in the data collection process. Given the scarcity of titles not designed or at least available for Sony’s Playstation consoles Playstation (hereafter PSX), Playstation 2 (hereafter PS2), and Playstation 3 (hereafter PS3), I further decided to limit the scope to titles for Sony’s platforms. While this results in excluding important series like Custom
Table 3. Games within the scope of this thesis, categorized by the attention given to them.

<table>
<thead>
<tr>
<th>Category</th>
<th>Franchise(F)/Title(T)****</th>
<th>Year</th>
<th>Chapter(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>discussed</td>
<td>Gundam (F)</td>
<td>1980s–</td>
<td>A.0</td>
</tr>
<tr>
<td></td>
<td>Metal Gear Solid (F)</td>
<td>1998–</td>
<td>A.3</td>
</tr>
<tr>
<td></td>
<td>Armored Core (F)</td>
<td>1997–</td>
<td>A.0</td>
</tr>
<tr>
<td></td>
<td>Ace Combat (F)</td>
<td>1992–</td>
<td>A.0</td>
</tr>
<tr>
<td></td>
<td>Front Mission (F)</td>
<td>1995–</td>
<td>A.0</td>
</tr>
<tr>
<td></td>
<td>Chrono Trigger (T)</td>
<td>1995</td>
<td>A.1</td>
</tr>
<tr>
<td></td>
<td>Global Defence Force** (T)</td>
<td>2005</td>
<td>A.2</td>
</tr>
<tr>
<td></td>
<td>Rez (T)</td>
<td>2001</td>
<td>A.2</td>
</tr>
<tr>
<td></td>
<td>Shinseiki Evangelion 2 [Neon Genesis Evangelion 2] (T)</td>
<td>2003</td>
<td>A.2</td>
</tr>
<tr>
<td></td>
<td>Shadow of Memories (T)</td>
<td>2001</td>
<td>A.1</td>
</tr>
<tr>
<td>mentioned (titles explored but not analyzed in depth)</td>
<td>Biohazard [Resident Evil] (F)</td>
<td>1996–</td>
<td>A.3</td>
</tr>
<tr>
<td></td>
<td>Another Century's Episode (F)</td>
<td>2005–</td>
<td>A.0</td>
</tr>
<tr>
<td></td>
<td>Lost Planet 2 (T)</td>
<td>2010</td>
<td>A.3</td>
</tr>
<tr>
<td>not mentioned (titles dismissed in the initial exploration or left for future work)</td>
<td>Mega Man (F)</td>
<td>1987–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>.hack (F)</td>
<td>2002–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Macross (F)</td>
<td>1980s–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parasite Eve (T)</td>
<td>1998</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Dino Crisis 2 (T)</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extermination (T)</td>
<td>2001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Zone of the Enders (T)</td>
<td>2001</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Disaster Report (T)</td>
<td>2002</td>
<td></td>
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<tr>
<td></td>
<td>Gunparade March*** (T)</td>
<td>2000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Shinseiki Evangelion: Jo [Neon Genesis Evangelion:Jo] (T)</td>
<td>2009</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Koufuku Sousakan [Happiness Investigator] (T)</td>
<td>2004</td>
<td></td>
</tr>
<tr>
<td>out of immediate or technical range (handheld titles or differing platform)</td>
<td>Custom Robo (F)</td>
<td>1999</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Metroid (F)</td>
<td>1986–</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Classic NES Series: Xevious (T)</td>
<td>2004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Famicom Mini: Star Soldier (T)</td>
<td>2004</td>
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<tr>
<td></td>
<td>God Eater (T)</td>
<td>2010</td>
<td></td>
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<tr>
<td></td>
<td>Gods Eater Burst (T)</td>
<td>2010</td>
<td></td>
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<tr>
<td></td>
<td>Steins;Gate (T)</td>
<td>2011</td>
<td></td>
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<tr>
<td></td>
<td>Black * Rock Shooter: The Game (T)</td>
<td>2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chikyuu Boueigun 2 Portable [Earth Defense Force 2 Portable] (T) **</td>
<td>2011</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Pikmin (F)</td>
<td>2001</td>
<td></td>
</tr>
</tbody>
</table>

* Asterix in Black * Rock Shooter in the original title.

** Discussing the first title of the series, The Earth Defense Forces.

*** Game system discussed in the context of Neon Genesis Evangelion 2.

**** This differentiation indicates the status of the item listed.
Robo or Metroid, its merit for this project is that it helps reduce the factors involved in the analysis, such as differences between consoles and controller types.

4.5 Conclusions
This chapter provided a rough overview of Japanese sf videogames, which serves as a starting point for the following analysis. The aim was to arrive at a relatively small, consistent pre-selection of titles and franchises for the following analysis. In the first parts, I have discussed the characteristics of sf and provided some justification for focusing on this genre in the initial exploration. Based on the notion of a tendency towards plausibility and the index of popularity, I have analysed statistical data on videogame sales and actively explored the Japanese market. With several additional restrictions, this resulted in a list of games for closer consideration.

This list may not reflect the market share and range of Japanese sf videogames accurately, because it excludes the vast field of amateur and professional computer games. However, I do believe that it serves its purpose of providing a rough overview of the field targeted in this project, and thus a sufficient starting point for the analysis. I have tried to make the process and the conditions leading to the selection of works as transparent as possible and hope to have provided enough background to contextualize the consecutive observations both from an academic perspective, and against the background of the field of Japanese videogames. I hope that future work can focus on those areas and titles not examined in depth here.
5 Mechapocalypse

Let’s make no mistake: whether it’s the drop-outs, the beat generation, automobile drivers, migrant workers, tourists, Olympic champions or travel agents, the military-industrial democracies have made every social category, without distinction, into unknown soldiers of the order of speeds. (Virilio 2006, 136-137)

In the last chapter, I defined the material field for the analysis. The following chapter shifts the attention to its contents, discussing several major currents in Japanese science fictional videogames. Examining both adapted and original videogames, I focus on the ways in which the pervasive trope of mecha—giant robots controlled by human pilots—is deployed in computopic universes. This preparatory analysis provides insight into the field and points to several common potentials and limitations of science fictional games, which serve as a basis for later examinations.

5.1 Science Fictional Skins

The statistical data suggests that some of the most popular sf games are adaptations of mecha anime. This is true for Gundam games, which are part of the Gundam franchise and mostly adapted from the various Gundam anime that appeared since the late 1970s, and the crossover\textsuperscript{54} series Another Century’s Episode (hereafter A.C.E.), which adapts story elements, characters and, most importantly, mecha from a wide range of works.\textsuperscript{55} According to Linda Hutcheon (2006, 8) an adaptation is an “acknowledged transposition of a recognizable other work or works,” a “creative and an interpretive act of appropriation/salvaging,” and an “extended intertextual engagement with the adapted work.” In her analysis, “the adaptive faculty is the ability to repeat without copying, to embed difference in similarity, to be at once both self and Other” (174). In their emphasis on fluidity and contingency, adaptations can be subversive, because they “destabilize both formal and cultural identity and thereby shift power relations” (164).

\textsuperscript{54} A “fictional crossover” is a special case of adaptation, in which different independent works are adapted (Wikipedia 2013h).

\textsuperscript{55} As opposed to the Super Robot Wars franchise, which includes so-called “super-robots”—mecha, which have fantastic powers—A.C.E. restricts its pool to “real robots”—referring to mecha more or less explainable by real-world science (Wikipedia 2013a, s, m).
However, a brief examination of the adaptive strategies in *Gundam* and *A.C.E.* reveals the limitations of such subversive potentials. Covering a broad range of videogame genres and subgenres from first-person and third-person shooters to strategy role-playing games, *Gundam* displays a variety of adaptive strategies.\(^{56}\) Titles like *Giren no Yabô [Gihren’s Ambition]* (2002) or *Ichinen Sensô [One Year War]* (2005), make a considerable effort to contextualize the gameplay with a narrative corresponding to the anime, thus offering an alternative, more subjective experience of the respective story adapted. In contrast, the majority of games reduces the context to a minimal reference in the shape of a rough narrative framing or by presenting characters, mecha—in *Gundam* called “mobile suits”—and locations familiar from one of the anime. As Example 5.1 shows, this tendency is particularly strong in the “arcade mode” of the *Gundam VS.* sub-series (hereafter *VS.*).\(^{57}\) While introducing the context of the games roughly in the prologue, these games decontextualize the action from the familiar narrative. This is most strikingly the case in the “arcade mode,” which confronts the player with a series of loosely connected scenarios. They reduce the link to a vague reference to setting, while at the same time offering a wide range of correspondently adapted but decontextualized characters and mobile suits.

In more than one case, the choices available or the results of a mission openly contradict the anime narrative. Such subversion is more actively explored in the strategy rpg of the *SD Gundam GGeneration* series.\(^{58}\) Offering a high degree of freedom when it comes to choosing pilots for the various machines and mobile suits available, as well as the possibility of convincing less fundamentalist villains to change sides during the battle, these games create situations not in line with the original anime. Such deconstructive tendencies are even stronger in the third-person shooter games of the *A.C.E.* series, which combine mecha, characters,

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\(^{56}\) At the time of writing (July 2013), the *Gundam* franchise includes 44 titles for the Playstation alone, not to mention other platforms (Wikipedia 2013i). Due to time constraints, the analysis can only focus on some of these titles. I tried to cover the most important sub-series and sequels.


and story elements from more than one franchise.\textsuperscript{59} As a general tendency, these titles feature an adaptive strategy that reduces the source material to elements of a database shuffled according to need and player choice. In this they are examples of postmodern database consumption, a term coined by Japanese philosopher Azuma Hiroki. Azuma (2001, 71-83) argues that the trend towards decontextualizing characters from the “grand narrative” culminates in a database of characters and character elements, which can be recombined in myriad ways and exist outside any specific narrative context.\textsuperscript{60}

This tendency towards a ‘databasification’ of decontextualized elements also converges with the themability of games mentioned above (see chapter 2, p. 34), revealing the mecha and even the characters to be scarcely more than decorative skins. Combining various elements of Gundam with the gameplay of the successful beat'em up series Shin Sangoku Muso [Dynasty Warriors]\textsuperscript{61}, the Gundam Musō [Dynasty Warriors: Gundam] games\textsuperscript{62} deploy this practice most explicitly. Gundam Musō confronts the player with epic martial arts battles against several hundred enemy mobile suits and rewards high kill-rates—a stark contrast to the anime with its emphasis on the psychological struggle of inexperienced civilians forced to fight over life and death and the terrors of war in general. In a different way, the above-mentioned VS. series deploys inter- and intra-game skinning practices, reusing its framework and format (and possibly parts of the software code) in successive titles or deploying a minimal number of stages in a large number of contexts.\textsuperscript{63}

These observations hint to another dimension of adaptations, namely their economic aspects. In general, economic considerations are certainly a dominant force behind the majority of the Gundam games. Hutcheon (2006, 30) grants that “[v]ideogames derived from popular films and vice versa are clearly ways to capitalize on a ‘franchise’ and extend its market.” However, she claims that

\textsuperscript{59} For this analysis, I played Another Century’s Episode (2005) and Another Century’s Episode R (2010).
\textsuperscript{60} For a more detailed discussion, see Schäfer and Roth(2012).
\textsuperscript{61} The third-person fighting games offer a choice of characters among the historical figures known from the “Three Kingdoms” period in China (220-280 AD), which the player has to reunite.
\textsuperscript{62} For the analysis, I played Gundam Musō 2 (2008a) and Gundam Musō Special (2008b).
\textsuperscript{63} A similar tendency is present in the SD Gundam GGeneration, in which notable changes are mostly of aesthetic nature or concern the referenced work(s). My analysis of “Playing ‘Naruto’” (Roth 2013) suggests that this is not unique to the Gundam games, but a might be considered a general current in (Japanese) manga, anime and games (production) culture. It would be interesting to analyze the impact such practice has on the economic model the game production and the franchise as a whole is based on.
economic considerations are always part of adaptations. In the case of *Gundam* and arguably also *A.C.E.*, the appearance of familiar mecha and characters is likely to be the major factor for the popularity of what would otherwise be highly repetitive videogames lacking narrative depth to an extent where they are presumably hard to follow for outsiders. Contributing to one or multiple major franchises, these games also play a role as advertisements for other products, just as the original mecha anime series were sponsored by toy makers like Bandai, who expected elevated sales of real-life models of the mecha and other series-related toys for children. A particularly prolific part of the *Gundam* franchise, the “super deformed” *SD Gundam GGeneration* games are a striking case of the economics behind adaptations. However, the fact that the “super deformed” style is presumed to be a strategy of circumventing licensing fees to the *Gundam* license holder Sunrise (Wikipedia 2013q), the series also indicates the complexity of the economic dimension of franchises and adaptations in general, which cannot be discussed in detail here.

In summary, games committed to—accurate or original—storytelling tend to offer alternative perspectives and subjective experiences of the *Gundam* world. However, the majority of games discussed so far tend towards decontextualization, databasesification, standardization and skinning. These games arguably offer their fan-players what Hutcheon (2006, 117) calls the intertextual pleasure of “understanding the interplay between works, of opening up a text’s possible meanings to intertextual echoing.” They also develop a considerable deconstructive force with respect to the original *Gundam* universe. However, by abstracting the narrative, characters and mecha from their context and from their specific features, they also reduce its political content to a choice between different skins only meaningful for insiders. The lack of novel contributions to the *Gundam* universe most of the games display marks them as highly self-reflexive.

64 This should be taken as a claim about professional adaptations that have a commercial background. Amateur- and fan-works certainly follow other intentions and may, to some extent, be regarded as adaptations for the sake of adaptations. Unfortunately, Hutcheon does not discuss this area in any depth.

65 *SD* stands for “super deformed.” According to the Wikipedia (2013p) entry, this style of ‘shrinked’ tiny representations of *Gundam* mobile suits is in use in parts of the franchise since the 1980s. It has developed from a playful parody to a highly successful sub-franchise which spawned several spin-off series and merchandise.

66 Traditionally set up as a future armed conflict between different fractions of humanity and post-humanity, *Gundam* features rich political themes in a science fictional setting, explored through an overarching narrative as well as by depicting the individual physical and psychological struggles of the characters caught up in the war.
Notably, Hutcheon (2006, 14) claims that videogame adaptations not only have to meet the demands of a “truth-of-correspondence,” or a reference to the universe of the adapted text, but also that of a “truth-of-coherence,” meaning a plausibility of the action in the context of the game. Turned around, the fact that the abovementioned games fail to convince as adaptations offers an opportunity for taking a closer look at them as games in their own right. The next section analyses how Gundam games adapt elements of a major franchise into various established videogame genres.

5.2 Survival Training
The mix of adapted narrative elements (background, characters, mecha) and gameplay in Gundam games provides an interesting case for Hutcheon’s (2006, 121) claim that successful adaptations have to be equally accessible to knowing and unknowing audiences. On the one hand, the abstracted, reshuffled or even lacking narratives found in most of these games are hardly intelligible for unknowing audiences. On the other hand, the gameplay of many titles is intuitive enough to be grasped immediately. At times confronting the player with tough challenges, the rules and controls are nonetheless simple enough to be mastered to a certain extent, and the instructions are easy enough to understand instantly.

In the following section, I take a look at the two most prominent videogame genres Gundam is adapted to, namely shooters and strategy role-playing games. In most cases dominated by third-person combat action on ground and in space, the shooters deploy the mobile suits with their enduring armour, ability to fly, and set of super-sized, deadly weapons as human enhancements. The titles of the VS. series reduce the complexity of controls, truthful to their arcade framing. More sophisticated examples like Climax U.C. (2006) or the A.C.E. series features complex manoeuvres and make use of the full range of the controller. Example 5.2 shows how these shooters display a tendency towards fast-paced reaction and emphasize hand-eye coordination, which is particularly striking in the 2.5D shoot’em up Mobile Suit Gundam Seed (2003).

As a tendency, the action in these games converges towards decontextualized

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67 It might be interesting to test whether this is true even for players with no knowledge of Japanese. I suspect that many gamers would not find it difficult to play the games more or less successfully, particularly if they are familiar with the respective genres.
reaction to the accelerated flow of information on the screen. Required of the player are analytical skills to decipher the screen quickly, and a corresponding set of control skills necessary to react to its signals. Hand-eye coordination is arguably part of many videogames to various extents, and pedagogical research has long highlighted its value as a skill in the contemporary world (see for example Witting 2007, 24). Besides the sensorimotor skills, a recent study of cognitive dimension of first-person shooter play indicates that such games promote cognitive flexibility and cognitive-control skills (Colzato et al. 2010). However, at the same time, visual acceleration promotes a kind of ‘responsive irresponsibility’ and a double vision on the part of the player. One has to identify and evade the most immediate threat, be it projectiles, obstacles, or the enemy, while constantly searching for new targets elsewhere on the screen and trusting the automatic trigger to remain on the target until destroyed. The attention moves on to the next target as soon as one has reason to believe that the momentary target will be destroyed by the last fired projectile. However, there is no time to reflect on or even focus on either the individual enemy, or the moment of destruction. In a way, I believe this is an experience similar to Walter Benjamin’s ([1936] 2002, 119-120) well-known description of film-viewing as tactile, habitual “reception in distraction,” which, albeit already ascribed a physical quality by Benjamin, should be qualified further by adding the term “intense,” to account for the active, physical involvement of the player.68

In their intense reception in distraction, these shooters offer a taste of Paul Virilio’s (2006) dystopic vision of an accelerated, dromological future, in which speed is superiority, and “to be quick means to stay alive” (70). In the contemporary “war of Time,” he says, knowing-power is replaced by moving-power (71), and the world as a field of (political) action comes to an end (152). At times of accelerated speed and ubiquitous accessibility to destruction, Virilio believes that the struggle for maintaining a certain margin of political reaction time—time for reasoned decisions—in order not to be replaced by automation of defence and decision is lost (155). In his view, “[t]he blindness of the speed of means of communicating destruction is not a liberation from geopolitical servitude, but the extermination of space as the field of freedom of political action. […] the more speed increases, the faster freedom decreases” (158). Ultimately, speed converges towards an instantaneousness of decision. The final power would thus be less one

68 For a brief discussion of how Benjamin’s conceptualization of the “modes of perception” and “reception in distraction” relate to contemporary media, see Schäfer and Roth (2012).
of imagination than of anticipation, so much so that to govern would be *no more than* to foresee, simulate, memorize the simulations; that the present 'Research Institute' could appear to be the blueprint of this final power, the power of utopia. (157)

In the light of Virilio’s analysis of politics in times of acceleration, the abovementioned shooter games and their emphasis on hand-eye coordination or analysis-reaction take on an ambivalent meaning. These skills could be said to prepare their players for behaving—or at least surviving—in a culture dominated by fast-paced information flows and visual representation. In a similar way, Benjamin’s (2002, 119) shock effect of the cinema, originating from “successive changes of scene and focus” and thus from speed. According to Benjamin (2002, 120-121), this made film the “true training ground” for the new apperception necessary in times of increasing “aestheticizing of political life” by fascism.

In the light of Virilio’s analysis of politics in times of acceleration, the abovementioned shooter games and their emphasis on hand-eye coordination or analysis-reaction take on an ambivalent meaning. These skills could be said to prepare their players for behaving—or at least surviving—in a culture dominated by fast-paced information flows and visual representation.69 However, insofar as the games emphasize instantaneous decision, reaction and anticipation instead of reasoning, imagination and action, they do not offer any alternative to the contemporary tendency towards acceleration, but rather in play reflect it. As far as I can see, this reflection is not critical but admiring of speed.

The turn-based strategy rpg, on the other hand, interrupts the flow of time. The titles of the *SD Gundam G Generation* series feature chess-like gameplay in which the player takes turns with the computer in strategic role-playing fights and can think about the next move as long as he or she wants. In command of several units in bird-eye scenarios, one has to make tactical and strategic choices appropriate to defeat the enemy. Each unit has a specified range of movement and attacks, which are to be used to the player’s advantage. Gradually, one can upgrade the equipment, regroup soldiers and gear, and create individual teams for the battles to come. Given Virilio’s (2006, 156) claim that with increasing acceleration, space (territory) as the central contested category in war is replaced by time, these turn-based, de-temporalized games with their strong emphasis on space and distances might be regarded as a counter-movement. Yet, at the same time, these games deploy the numerous mecha of the franchise to create high information density, further amplified by customization options. This turns the games into vast spaces of functional configuration and re-combination of the decontextualized database elements mentioned above.

Again, this is an ambivalent feature. On the one hand, these games promote skills of analysing and understanding complex information systems and databases in times of an ever-increasing importance and influence of such systems. As such,
they confront the player with a high information density and offer an intense but playful experience of mastery. Volker Grassmuck (2000, no pn) discusses “otaku,” a Japanese term referring to passionate or ‘extreme’ fans of manga, anime, games and related fields of interest, as a new strategy of dealing with the information age. At the end of the 20th century, he observes, “[h]ardly anybody is not affected by the flood of information and plethora of media. The increasing flow-velocity of our life processes forces us to simultaneously partake in ever-more projects in ever-more places together with ever-more people.” In contrast to attempts of responding to this new information density by flexibility and multi-tasking,  

[t]he otaku are trying out a solution that goes in the opposite direction. Their urge to appropriate the world is motivated by the ambition to swap the borderlessness of the social cosmos for the microcosmos of collecting, of games, or of the machine. This radical limitation enables them to form an identity and bundle together a life story as a narrative. If the multiple represents opening up, then the otaku represents closing off. (Grassmuck 2000)  

Based on my own research into the otaku culture (Roth 2011), I doubt that these claims can be generalized. Nevertheless, the videogames in question deploy their mecha to generate information density, and offer ways to master it. In this sense, these videogames resemble Grassmuck’s otaku world, because they offer a coherent, closed computopic space and strategies for and the experience of “mastering the social and psychological uncertainties of our age” (Grassmuck 2000).  

In this, they depend on a mechanism similar to the closure Jameson regards as crucial for successful utopian imaginaries. However, as in the case of the shooters, this closed space features characteristics similar to those of our empirical reality, but does not offer alternatives to it. In order to qualify this statement, I would like to distinguish between creative and repetitive information, and the corresponding strategies of engaging with data. McKenzie Wark (2006) draws such distinction in A Hacker Manifesto [version 4.0], albeit in the peculiar terminology of production vs. hacking and communication vs. information. He claims that “[w]here communication merely requires the repetition of this commodified difference, information is the production of the difference of difference” (No. 40). A hack “produces a production of a new kind, which has as its result a singular and unique product, and a singular and unique producer” (No. 8). Production, in turn, “takes place on the basis of a prior hack which gives to production its formal, social,
repeatable and reproducible form. Every production is a hack formalised and repeated on the basis of its representation. To produce is to repeat; to hack, to differentiate” (No. 9).

Converting these statements into my terminology, one could say that his description of communication fits my notion of a repetitive engagement with data, because it deploys a formalized, pre-defined difference, whereas his notion of information matches creative engagements, because it entails a novel way of engaging with data. Against this background, I would argue that the potential for creative information in the abovementioned games is limited to their deconstructive function in the context of the adapted franchise, because none of these games features a novel strategy for producing information. Instead, they perpetuate the contemporary conditions and promote repetitive strategies of managing information rather than creating it anew. To invoke Carroll and Adorno (see chapter 2, p. 8), these games deploy “commonplaces” and offer accessible scenarios rather than confronting us with disruptive conflicts capable of stimulating independent, radical imagination.

In contrast to the abovementioned shooters, turn-based strategy games appear to offer their players what is lost in acceleration: time to think and make decisions about the future. Yet, a closer look reveals that these games only shift the plane, from accelerated reaction to strategies of managing information density and complexity. In sum, both cases are characterized by acceleration and density. The skills needed to survive their scenarios are similar to those required of us in the empirical reality. Since speed and data are central elements of the computopic, it should not surprise us that they play an important role in many games. However, the following sections show that they can be deployed in more radical, provocative ways than we encountered here.

5.3 Future War

Given the strong tendency towards agonist or competitive challenges in videogames in general, and their fraternity with war simulations of all kinds\(^{70}\), it may not surprise that several successful independent works and series share the theme

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\(^{70}\) In his dissertation on the origins of videogames and their philosophical significance, Claus Pias (2000, 163-197) showed that strategy games were always strongly intertwined with military strategy, planning and war simulations.
of war with the abovementioned adaptations. Developed as original videogame series, *Front Mission*, *Ace Combat*, and *Armored Core* place the action within genuinely novel, sophisticated and temporally and spatially extensive science fictional universes (i.e. Figure 5).

The turn-based strategy rpg of the *Front Mission* series, for example, are set in the 21st and 22nd century. In a future based on the present situation of 1995, when the series’ first title *Front Mission* was published, several supranational republics are formed in the early 2000s, such as the European Community (EC), the Republic of Zaftra (formed around Russia), the United States of the New Continent (USN), the Oceania Cooperative Union (OCU), as well as the instable Organization of African Consolidation (OAC). Due to several developments, the UN are rendered insignificant in the 21st century and are replaced by the Peace Mediation Organization (PMO) founded by Zaftra, only to regain strength in the early 22nd century with the support of the USN. Despite these developments, the world remains highly instable, with several coups d'état and anti-state terror on the rise.


If not specified further, information about the game world origins in my own exploration of the game or the fan site tenmou.net (2013a).

For an overview of the *Front Mission* history, see the history section of tenmou.net (2013b).
By basing its future on real world facts the series creates a plausible future world. This approach is also applied to technology, as Pineda, Thompson and Tam (2011, 1) point out:

Game mechanics aside, *Front Mission’s* true strength comes from its design and story elements. The biggest design influence is the series’ grounded realism; the setting is based off of near-future trends of how our world will evolve. For example, the technology of the series has real-life applications. *Front Mission’s* cast of characters come from all over the world, from Venezuela to Korea to even Iceland.

As an important element in the gameplay, the games introduce mecha called “wanzers” which the player can customize with various weapons of short, middle and long range and upgrade to optimize them for the enemy forces awaiting. In the missions or stages, which sometimes take more than one hour to complete, player and computer take turns in directing the attacks and movements of their wanzers.

The temporally and spatially extensive future world with its advanced technologies and never ceasing conflicts not only provides the basis for these missions or stages, but also serves as a background for discussing various political and philosophical problems. “In keeping with the series’ near-future roots, each game focuses on particular military, political, scientific, and philosophical themes that form the core of their stories. For example, a major recurring theme in the games is the struggle between globalization and nationalism” (Pineda, Thompson, and Tam 2011, 1). While not the most esteemed title of the series, *Front Mission 3* is a good example of the series’ “grounded realism” and its political commentary.

Set in the year 2112, the player begins the game in Japan. One quickly learns that future Japan has maintained its non-aggression policy on the surface, while embarking on humanitarian aid missions and conducting weapon systems development beneath. During the “Emma-storyline,” protagonist Takemura Kazuki aids the foreign scientist Emma in the pursuit of a stolen new weapon of mass destruction called “M.I.D.A.S.,” at the same time trying to rescue his sister Alisa, who is abducted for her scientific knowledge about this weapon. The game

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74 The term is compiled of the German words *Wandern* (to hike, to wander, to move around) and *Panzer* (tank).

75 Depending on a choice very early into the game, the player pursues one of two storylines in the game. I have only played the “Emma-Storyline” and the following remarks are based on this experience.
Part II  Field

is infused with themes like war victims, weapons technology, and violence, and offers diverse moments of reflection on these issues, some of which I have included in Example 5.3\textsuperscript{76}. The protagonist is not a soldier but an engineer and test pilot. The story touches upon individual experiences of war and killing several times, while nonetheless maintaining that Kazuki and the player have no choice but to fight against the attackers.\textsuperscript{77} In the context of the overarching story, Emma, who is responsible for developing M.I.D.A.S., repeatedly agonizes over her action and responsibility to mankind, in particular after the weapon is used by an over-ambitious general.

However, despite the game’s absorbing pace and depth, these reflexive episodes remain somewhat superficial. Much more than the rudimentary and unemotional animation techniques used in the dialogues, this is a result of the fact that the gameplay itself does not reflect this critique of violence and war technologies. On the contrary, featuring customizable mecha and diverse weapons in a very similar way to the abovementioned Gundam rpgs, it immerses the player into technology and rewards a certain amount of admiration and enthusiasm.\textsuperscript{78} More importantly, the battles remain superficial in their treatment of the terrors of war and the fight over life and death, as Example 5.4 shows. Human beings are visible only upon escape from their wanzers and, most of the time, the action does not refer to the death or injuries of those involved in the fights. At the same time, the player has to kill every single opponent, even when they have left their machinery and pose no substantial threat any more. Yet, complete destruction of a team member’s wanzer does not lead to fatal injuries, and neither causes a loss of the robot: if the mission can still be completed, machine and pilot are restored. In general, each fight during the runaway starts with full specs—ammunition, armour, etc.\textsuperscript{79} This is not just an

\textsuperscript{76} English subtitles for front mission 3 taken from Unos Hambalos’ (2007) Front Mission 3 - Game Script (EMMA).

\textsuperscript{77} This may be a “commonplace” in Carroll’s sense. A similar element is deployed in the Gundam story, in which civilian protagonist pilots agonize over their unwilling involvement in violent conflicts and war.

\textsuperscript{78} I will come back to this tension in a later analysis of Metal Gear Solid, where it is explored far more actively and with the player as target (see chapter 8, p. 142).

\textsuperscript{79} This is why Dave Connoy (2003) gives the following advice in his walkthrough: “Don’t be afraid of death. The HP of all the parts of all of your wanzers is fully restored at the end of each battle, and dead pilots are even magically resurrected! Fight every battle to the bitter end, because you never know what lucky break might come your way. Of course, an arduous battle of attrition will reflect badly on your ranking, so you may want to redo the stage anyway.” I will come back to the rather common foregrounding of score over death suggested here in a later chapter.
example of the rule-based contradictions with plausibility the Half-Real (Juul) status of videogames (see chapter 4, p. 64) can cause. What is more important here is that these contradictions are counterproductive to the game’s attempt at delivering a critical message.

Front Mission 5: Scars of the War deals with the problem of physical, mental, and emotional damage inflicted by war in more sophisticated ways. Following the protagonist, USN soldier Walter Feng, into an armed conflict with the opposing OCU, the story touches upon the victims of war, including the traumatized soldiers, and further problematizes experiments with brain manipulation and soldier enhancement: A soldier in the enemy forces, Walter’s friend-of-youth Glen Duval is subjected to such experiments and ends up killing their mutual childhood friend Randy O’Neill, whom he no longer recognizes after the manipulation. However, as in Front Mission 3, these critical elements are presented almost entirely through the narrative, be it in scripted dialogues or cut-scenes.

A similar divide between narrative and gameplay can be found in the Ace Combat series80, albeit in a very different shape. Ace Combat is a first person flight combat simulation.81 From Ace Combat 2 to Ace Combat 6, the series is set in the fictional world “Strangereal” (for more details, see wikia 2013b) shown in Figure 6.

![Figure 6. Strangereal political map. Source: Ícaro Ghost37 (2013).](image)


81 If not specified further, information about the game world origin in the player’s own exploration of the game or the wikia online encyclopedia section “Acepedia” (2013c).
A major event in the history of Strangereal is the so-called Belkan war, which is also the main subject of *Ace Combat Zero: The Belkan War*. After failing to avert a severe economic crisis, the Belkan government is replaced by a faction of the far right wing, which brings the country back to economic prosperity and invests majorly in a strong military. In 1995, the Belkans deploy their military force in an invasion of their neighbouring countries. The success of these expansive campaigns prompts the two super-powers Osea and Yuktobania to enter the conflict against Belka. Forced back onto their main territory after several months of fighting against an overwhelming enemy, the Belkans decide to drop seven nuclear bombs on their own borderlands in order to build a wall that stops the invading forces. The war weakens the superpowers considerably, because their forces are outmatched by Belkan military technology. In the aftermath, they dismantle their nuclear weapons and elect peaceful governments—not without first creating secret military elite forces (see Radford 2006, SY01).82

Whereas *Ace Combat Zero* presents the player with a retrospective on the experiences and missions of a legendary pilot in the Belkan War, *Ace Combat 5* opens with Yuktobania once again declaring open war on Osea 15 years later. Both games feature immersive stories83 with a set of interesting characters.84 Despite their difficult controls, they offer a thrilling and highly entertaining experience of aerial dogfighting.

At first glance, *Ace Combat 5* resembles a realistic flight simulation, since if features dozens of different real-world aircraft, including plenty of American classics like the F-16 Fighting Falcon and the F/A-18 Hornet, as well as Russian planes like the Su-27 and MiG-29. State-of-the-art fighters like the F-22 and classic jets like the F-4 and A-10 Warthog

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82 This all suggests strong similarities with our own history, albeit with certain important alterations. According to the entry on the “Belkan War” in the Acepedia on wikia (2013a) “[t]he Belkan War is based heavily on World War II, with elements of the Gulf War.” This interpretation is supported by the German-sounding names of Belkan companies etc. Yet, the appearance of nuclear weapons also suggests some influence of the Japanese history and the Asia-Pacific War. Unfortunately, a preliminary search could not determine the intentions behind the alterations made to this historical basis, particularly with regards to the nuclear bombs which are dropped by Belka itself.

83 “Ace Combat’s continued devotion to good storytelling is ultimately one of this game’s best strengths, since the presence of so much plot helps to give the missions a sense of genuine significance and cinematic drama. The high-quality voice acting, constant radio chatter, and stirring, dynamic music combine with the action very well, giving Ace Combat 5 an epic feel.” (Kasavin 2004)

84 According to Michael Radford (2006, CH01), this was not always the case in earlier *Ace Combat* games.
are also represented. In real life, some of these jets handle drastically differently, but despite its realistic looks (complete with gorgeously detailed plane models and cockpits, and authentic heads-up displays), Ace Combat 5 is clearly not intended to be a realistic flight simulation. (Review by Greg Kasavin posted on Gamespot.com 2004)

Nonetheless, in its attempt to bridge real aerial combat with entertaining gameplay, the series does approach (the illusion of) a realistic experience in its graphics and gameplay deliberately—to this end, the designers for example gain expertise from the Japanese self-defence forces. To the extent to which Ace Combat aims to offer realistic experiences, the vector points towards our empirical reality—even if this is a reality not likely to be part of most people's experience. Although the individual player may break out of his or her present in these games, this experience in itself does not feature any radical alternatives departing from our reality in drastic ways.

In sum, Front Mission fails to maintain science fictional plausibility in its contradictory gameplay, which further weakens its critique. Ace Combat fails to depart from reality far enough to provide a science fictional novum that corresponds to the theoretical potential of its alternative world. In both cases, the combination of narrative and gameplay fails to be science-fictionally plausible. Although contradictions between several elements are common in most games, the next section shows that some titles, more than others, succeed in deploying the science fictional novum more comprehensively than the abovementioned games.

5.4 The Economic Nightmare

Armored Core (hereafter AC) is a long-lasting series of third-person mecha action games. It's world is ruled by global companies rather than nations or elected political entities. The world's history varies within the series, but in most cases, the games present a post-apocalyptic present in the aftermath of a world-wide (nuclear) war. This major event changed the world's power balance in favour of

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85 For this analysis, I played Armored Core 2 (2000), Armored Core Nexus (2004), Armored Core 4 (2006), and Armored Core for Answer (2008).

86 This event is referred to as the “Great Destruction (daihakai)” in the PSX and PS2 titles (from AC released in 1997 to AC: Last Raven released in 2005), and as the “National Dismantlement War” in the PS3 titles (since the 2006 release of AC4). The Japanese Wikipedia entry for daihakai (Wikipedia 2013f) refers to three different versions of this event in the series. In AC4 and AC for Answer, the Great Destruction is replaced by a “National Dismantlement War” waged by the leading companies in a situation where the national governments are unable to deal with the problems of overpopulation and the
the technology companies involved in these wars, which hold all political power ever since. Already through its setting, the AC series features a direct critique of (neo-liberal) capitalism and ecological destruction in its dystopic future. As the Japanese Wikipedia entry on the “Great Destruction”—or “Grand Slam,” as the entry calls it—summarizes it for the first titles, its background is the distortion of the maximally grown liberal economy. Rapid increase of slums and environmental pollution in the industrialized countries are paralleled by their fraud against the developing countries, disguised as developmental aid. An irrecoverable gap of economic inequality, population growth, as well as environmental damage and food shortage caused by the destruction of nature, resulted in distrust in the governments’ abilities to run the countries. (Wikipedia 2013f, my translation)

Beyond a narrative depiction of the consequences such world and its inhabitants are facing, the series puts the player in the role of a mercenary tasked with biological and economic survival. During the course of the game, the player is offered numerous contracts by diverse employers, first and foremost the major companies. These missions require sophisticated machinery and advanced weapons technology. Piloting a mecha called “Armored Core,” the player has to fight enemy mecha and other deadly war machines, both manned and unmanned. The money earned from these contracts can be used to purchase new parts for one’s own machine.

With its myriad parts and many interrelated layers of customization, the AC series is arguably one of the most complex examples of mecha customization. Figure 7 hints at the complexity of the Armored Core setup. With all its options, the AC upgrade system requires considerable comparing and research in order to be mastered to some extent. Above, I have criticized a similar system in the discussion of the Front Mission series or the Gundam strategy rpgs. In all cases, mecha are not only an important element of the game mechanic, but also function as a customizable object of fascination, targeting an audience enthusiastic about (war) machines and technologically savvy. Example 5.5 shows that AC shares such technology fetish, arguably propelling it to new heights by offering elaborate rise of terrorism and anarchy (Wikipedia 2013c). Whereas this later change can easily be explained by a different world setting, earlier games confused their players due to different versions of the Great Destruction (Wikipedia 2013b). Released after AC for Answer, AC V does not continue the storyline of the earlier titles, but can be considered as a standalone project in terms of its narrative and world, and will not be focused on in the following section (Wikipedia 2013d).
designs and various ways of admiring the machine, whether as 3D models or in the opening video sequences.

Figure 7. Customization in AC.

Yet, whereas other games do not connect this dominant role of technology and customization directly to their science fictional world, the upgrade system in AC is a crucial element for conveying the series’ dark vision of an economically dominated future. The relation between both elements is achieved by increasing the definiteness of one’s actions in several interrelated ways. Among them, the payment system can arguably be said to be the most important. In AC, the player is rewarded for the actual performance during the missions, which he or she can fail to accomplish without having to start all over again. Figure 8 indicates that successful and efficient completion raises the income considerably, whereas poor and inefficient use of weapons, damage to the Armored Core, or failure to meet
the objectives lowers the reward and may even result in minus balance, since ammunition and repairs have to be paid in any case. Losing the ability to upgrade the mecha is a major problem, as missions do not get easier.

![Mission Report](image)

**Figure 8.** Two results for the same mission in *Armored Core for Answer* (l, m), followed by the choice to redo or save permanently (r).

The rewards earned in a mission are linked to the player’s performance in other series like *Front Mission* or *Ace Combat* as well. However, the absolute judgment in *AC* is further elevated by the games’ treatment of the saving function. What distinguishes titles like *AC4* is that they only allow for saving the entire status upon leaving the game, thereby forcing the player to accept less successful missions or revert to the frustrating method of restarting the entire game and going through the loading process after each suboptimal performance.87 Albeit to a lesser degree, such an experience is also part of earlier games such as *AC2*. Here, successful completion, while in itself a considerable achievement for less experienced players like myself (see below), may, depending on the actual performance, not return sufficient revenues for the necessary upgrades, since ammunition and repair costs are generally very high.

Another way of conveying their dystopic message is the high difficulty these games display. The *Armored Core* series is not aimed at casual gamers, but targets hardcore fans with sophisticated data analysis and tactical skills, as well as a good hand-eye coordination. These requirements complicate the struggle for survival as a mercenary substantially. Recent titles like *AC Nexus* or the PS3 games *AC4* and

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87 In other titles, like *AC for Answer*, the player can choose to redo a mission based on the results, accept his or her performance, or cancel the whole procedure, returning to the pre-mission state. On the one hand, this effectively weakens the absoluteness of one’s performance. On the other hand, it confronts the player with a difficult choice, since the earlier results are erased when opting for retrial.
AC for Answer feature a complex set of commands, which makes use of almost the entire range of controller functions. For me as a player used to recent first-person and third-person shooters, the earlier AC2 controls provided an even more demanding challenge, because it neither makes use of the analogue sticks, nor offers a key assignment system. With only two key mapping options left, the player is forced to master the mecha in a pre-determined, from my perspective counterintuitive way. Offering a frustrating initial playing experience, this limitation and awkwardness of the controls, however, points to the role controls play in the experience of gameplay in general, and the control over technology and mecha in particular.88

Together, these elements support and amplify the experience of a world dominated by companies and war technology. By deploying the nova of economic dominance and mecha technology in multiple elements of narrative, game system, and gameplay, the AC series manages to offer an involving experience of survival in a world which has turned into a freelance battlefield. It may not surprise the reader that some of the skills these games require are familiar from the earlier analysis of acceleration and information density in Gundam, in the context of which I have discussed them as an uncreative survival strategies.89 The AC series radicalizes this tendency almost beyond recognition, confronting the player with a dystopic totality in which biological survival—to the extent to which this category exists in videogames with their saving and retry options—is directly linked to economic survival and the skills necessary to prevail in battle.

Whereas the lack of narrative context to the missions in many Gundam games was perceived as a failure, AC—which, by the way, does feature a vague overarching narrative—embeds this lack convincingly into its world view. After all, one does not choose to accept contracts due to their political motivation, but because they are lucrative and ensure survival. Interestingly, AC for Answer offers a choice

88 From a contemporary perspective grounded in an ever more realistic and intuitive experience of technological control, technical (and thereby often sensual) restrictions and limitations in titles like AC2 or early PSX Gundam games such as Mobile Suit Gundam (1996) and Gyakushū no Shà [Char’s Counterattack] (1998), can offer a deeply disruptive, alienating experience of a 'lack of control' over the machine.

89 Interestingly, AC offers the player the choice not to accept a mission or to abort it. AC for Answer is well known for requiring of the player nothing more than a successful completion of the final two missions—offering enough reward for missions aborted midway to upgrade the Armored Core sufficiently. Here, the game departs or abstracts from its economic logic, because it is conceivable that companies aiming towards profit and efficiency would not hire an unreliable mercenary repeatedly.
between several companies the player can join as a hired mercenary, including an independent faction, as shown in Figure 9.

“The world’s largest corporation. It primarily operates as a defense contractor. Their craft proudly display military colors and feature excellent defense and heavy weaponry.”

“A military corporation with political might on their side. They tend to keep their distance from both GA and the Interior. Their craft are standard, highly maneuverable Rosenthal machines.”

“An independent mercenary unaffiliated with any corporation. The only available craft is an older Rayleonard model, built for close range combat. Good luck.”

Figure 9. Ideological choices in AC for Answer. Translation taken from Ramza411sb’s (2011) “Interactive Let’s Play Armored Core: For Answer.”

At first glance, this might suggest some space for morally or ideologically driven decisions. However, betraying any such expectations, ideology is reduced to choices between different machines. The general tendency of the series suggests that

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90 This is most aptly expressed in the following section of a walkthrough by Acid Losvaize (2009, ACFA03, errors in the original): “When you start the game, will be prompted about some options, and finally about your sponsoring company. Whatever you choose, it won’t affect storyline, just your initial gear and parts that will be in the shop at first. When I begun the game, of course chosen independent type, but I think it’s better to take Interior Union since Tellus legs and core are premium quality, and you will be able to buy two Altair by..."
this is not a flaw in the game design, but may well be read as a way of conveying the final consequence of this world: the irrelevance of ideology in the everyday struggle of the mercenary to survive the economic nightmare.

5.5 Conclusions

This chapter examined several major tendencies in the field of relevant science fictional videogames defined in the last chapter. It identified some of the ways in which mecha are deployed in different series, ranging from means of addressing franchise fans or a technology-savvy audience attracted to war machinery to proper nova in the sf sense, which are effective not only visually but also in the gameplay rules and experience. The fact that these tendencies cannot be separated clearly makes the mecha an ambivalent device in Japanese sf games.

The analysis suggests that the most dominant franchises on the market are not necessarily the most promising from a political point of view. As adaptations, the *Gundam* games feature a deconstructive tendency in the context of the adapted universe and offer the player a new perspective on and experience of their universe. However, in most cases, they remain self-referential and are dominated by skinning practices—a tendency even stronger in hybrids like *Gundam Musō* or crossover series like *A.C.E.* The review of adaptations leads to the conclusion that a random selection of database elements does not suffice to generate disruptive conflicts. These results make me wonder if ‘databasification’ can offer the “piquancy of surprise” and “change” at all, which Hutcheon (2006, 4) regards as major potential of adaptations. As games in their own right, the analyzed *Gundam* titles have proven to be ambiguous cases, perpetuating the contemporary conditions on the one hand, and offering strategies for survival on the other. Overall, they remain repetitive and do not offer genuine alternatives or novel strategies of resistance.

At the same time, the above sections emphasize the importance of the novum, highlighting different ways in which it is deployed. Independent series like *Front Mission*, *Ace Combat* or *Armored Core* offer the player an alternative world one cannot but call dystopic. In all cases, the dark tenor is that the effort made towards

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selling one of the crappy samsara or medusa weapons. I strongly recommend you to do this.

Drawback of choosing Interior instead independent… you are losing blade dragonslayer (I mean, you don't have it and can not buy blades until later in the game), that is quite useful to kill AF's. Besides, AALIYAH gear is more expensive than TELLUS, so economically you lose choosing this last one. Anyways, for me is best to have two Altair from the first mission.”

| 5 Mechapocalypse |
living together in peace cannot prevent a fiercely fought global war about resources and power. Yet, *Front Mission* and *Ace Combat* proved to stop short of deploying a novum in their gameplay, restricting it—and with it their political message—to the conventional narrative layer. This does not make their universes as such less science-fictional or their gameplay less enjoyable, but weakens their overall appeal as sf games because it leads to implausible contradictions rather than plausible disruptive conflicts, thus working counterproductively to the critical elements displayed in the story or setting.

An example of a more encompassing deployment of the novum was found in the sophisticated dystopia of the *Armored Core* series, which does not only transfer the player into a post-apocalyptic world, but reflects and amplifies this setting in its gameplay and rule set, thus offering a total, compelling and frightening experience of life under extreme conditions. This finding is supportive of Suvin’s (1982, 6) claim that in the most effective or optimal sf,

> a sufficiently large number of precisely aimed and compatible details draw out a sufficiently full range of logical implications from the central S-F novum und thus suggest a coherent universe with overall relationships that are—at least in respect of the thematic and semantic field associated with the novum—significantly different from the relationships assumed by the text’s addressees.

In this sense, a preliminary conclusion that informs the consecutive analysis is that the computopic might be politically most potent where games mobilize a wide spectrum of their expressive elements or combine these elements in intriguing ways. In the light of the strong dystopic tendency found in the first exploration, a major question for the following chapters is whether games can only function as critical and disturbing devices, because their logic is so strongly interwoven with our present that they remain bound to it, or whether they also offer disruptive and more promising visions, which point to directions of possible systemic alternatives. To show that this is the case, the chapters of part III focus on three areas of computopic expression, namely narrative, representation, and rules, which are particularly apt to address the political dimension of time, aesthetics, and action in distinct and potentially radical ways. The analysis concentrates on titles, which explicitly make these themes a central subject of the gameplay and deploy their science fictional nova on multiple aspects of their computopic universe.
Part III  Analysis
6 Temporal Alternatives

How does it feel to be dead, Eike…?

(Shadow of Memories, 2001, Prologue)

In the last chapter, I showed how accelerated gameplay provokes an intense and distracting experience in the player. The speed of play permits little to no time for reasoning and political action geared towards new undertakings, which shows that time plays a crucial role in political action. Recognizing the complex, multi-layered temporal structure of the computopic space and its contingency, the following chapter asks if videogames can deploy their temporality in disruptive ways, thus pointing to a novel understanding of time capable of reconfiguring action possibilities.

6.1 Time and Politics

Videogames are characterized by a peculiar multi-layered temporal structure. Chapter 5 points to some of the temporal features and the rhythms of action in videogames, which can range from merciless acceleration in shooters to player-controlled interruption in turn-based strategy. Narratives and the ability to “save” or “pause” games add further temporal layers, which are often combined or contrasted playfully.

This potential for a playful engagement with time is of particular interest here because our perception of time influences our history, economy, society, and, most importantly, our politics. In the light of a recent rise of attention on history and historical memory, including its materialization in memorials, Itagaki, Ryūta, Jeong Ji Young and Iwasaki, Minoru (Itagaki, Jeong Ji Young, and Iwasaki 2011, 8-9) observe a “mnemonic turn” in the present. As already mentioned, Frederic Jameson (2007) laments a “colonization of the future,” by means of which the latter appears predictable, thus ruling out alternative possibilities. The repressive function of prediction and calculation has also been observed by thinkers like Hannah Arendt (1970, 6-7), who specifically criticizes the practice of “scientifically minded brain trusters” and their tendency to render open hypotheses and predictions into facts.

All these observations speak of the pervasiveness of a linear understanding of time and its influence on our present situation. Often in combination with
notions of progress (see Gellner 1964, 40-49), this linear time serves as a widely unquestioned basis for society and economy. Barbara Adam (1994, 9), for example, argues that “[t]he members of such [contemporary industrialised; mer] societies use the concept of time not merely to synthesise aspects of mind, body, nature, and social life, but they also employ it on a world-wide basis as a standardised principle for measurement, co-ordination, regulation, and control.”

Robert Hassan (2009, 16-17) claims that the present can be defined as a second empire of speed, which, following the first empire dominated by the clock, is now dominated by global capitalist economy and connected by an information network, demanding of its subjects flexibility, unquestioning obedience, and blind action. In his analysis, Hassan draws on Paul Virilio’s pessimist observations on our increased acceleration (see chapter 5, p. 78). Virilio (2006, 159) fears that with this acceleration of the contemporary war of time, “properly human political action will disappear.” However, it is far from self-evident that time is linear, although this understanding appears adequate in the biological realm. Barbara Adam (1994, 16), for example, claims that all time is social time, emphasizing its status as a social construct. Recognizing this constructed character of time, Virilio devotes considerable attention to identifying accidents of acceleration that interrupt the contemporary speed of linear time. In The Aesthetics of Disappearance, he discusses the disruptive effect brief “picnoleptic” absences of the mind in the everyday, “[t]he return being just as sudden as the departure, the arrested word and action are picked up again where they have been interrupted,” can have on our linear perception of time (Virilio 2009, 19). Inspired by Virilio, this chapter examines the ways in which videogames confront us with temporal conflicts capable of disrupting our socially constructed, linear understanding of time. For this, I turn to the science fictional trope of “time travel” and its capacity of confronting us with temporal paradoxes (see Ryan 2009). The next section shows how this capacity takes on different shapes in the computopic.

6.2 Computopic Temporality

Analyzing a series of time travel narratives, Marie-Laure Ryan (2009) shows how the flexibility of the imagination can be deployed to create temporal paradoxes, which contradict our “intuitive idea” that time flows in a fixed direction, that one cannot go back in time, that causes precede their effects, and that the past cannot
be changed.

Whether temporal or not, paradoxes are the unimaginable at the heart of an imaginable world. We deal with them logically by putting them in quarantine, so that they will not infect the entire fictional world; we deal with them philosophically, by regarding them as thought experiments aimed at destabilizing common-sense conceptions of time; and we deal with them imaginatively, by putting ourselves in the skin of the characters whose life is being invaded by the irrational. (160)

Ryan identifies non-linear temporality as “unimaginable” and “irrational.” Paul Ricoeur (1980, 169), who devotes much effort to discussing the temporal structure of literary events, goes even further, arguing that our understanding of time is reciprocally connected to the narrative. Ricoeur (1984, 3) claims that “time becomes human time to the extent that it is organized after the manner of a narrative; narrative, in turn, is meaningful to the extent that it portrays the features of temporal experience.” However this does not mean that narratives are necessarily linear. On the contrary, for Ricoeur (1980, 178-179), “emplotment” is a dialectic process between succession and configuration. More generally, he tries to identify the non-linear potentials of what he regards as a mimetic three-step involved in the poetic act, by which “a prefigured time […] becomes a refigured time through the mediation of a configured time” (Ricoeur 1984, 54). In other words, Ricoeur aims to show how the movement from emplotment—the configurative practice that restructures the successive events authored by human action—to the act of reading and making sense of a configuration by linearizing it again, can entail glimpses of non-linear time (82-83).

How does this relation between time and narratives appear in the computopic space, with its aforementioned multi-layered, contingent temporality? Contingency and repeatability are not limited to videogames or the digital realm, but can be regarded as general features of media. As Fabian Schäfer (2010, 103) points out, media display a long history of annihilating the traditional space-time continuum by replacing linear narration with less determined structures. In the case of videogames, particular interest has been devoted to temporality, because videogames are not bound to material singularity. As already mentioned, Aarseth (1997, 3) regards videogames as “machine[s] for the production of variety of expression” (see chapter 2, p. 29). From this perspective, the peculiar temporal expressivity of the computopic space partly stems from the fact that “the experienced sequence
of signs does not emerge in a fixed, predetermined order decided by the instigator of the work, but is instead one actualization among many potential routes within what we may call the event space of semio-logical possibility” (Aarseth 1999, 33).

Apart from this emergent, non-narrative potential, other authors emphasize the tension between fiction and rules. As Tavinor (2009, 115) observes, videogame fictions “have mixed uses [...] and the function as a game seems to be somewhat inconsistent with the function as a narrative.” In a similar sense, Galloway (2006, 92) states that “while games have linear narratives that may appear in broad arcs from beginning to end, or may appear in cinematic segues and interludes, they also have nonlinear narratives that must unfold in algorithmic form during gameplay.”

The contingent results of player input indicate the importance of the player's temporal experience. Aarseth (1999, 37) states that “ergodic time […] depends on the user and his actions to realize itself. There is no action without a participating observer. At the same time it determines the user’s sense of experienced time within the event space. In the clock-work world of the game, events occur when the controlling program enacts them, and when the user acts on the same level. The event time is the basic level of ergodic time.” Further observing that successful player input provokes in-game progression as another layer of temporality, he suggests that videogames feature three layers of time, namely the time of player actions, the time of game events clocked by the computer, and the time of game progression triggered by successful player action (37-38).

In a more recent approach, José Zagal and Michael Mateas (2010, 848-851) propose the concept of temporal frames, i.e. sets of events each featuring their own temporality. Granting that other frames exist or may be added in individual cases, the authors identify four common temporal frames, namely real-world time (events happening around the player), game world time (events taking place within the represented game world), coordination time (events that coordinate the actions of multiple actors), and fictive time (application of socio-cultural labels to a subset of events). The layer of coordination time refers to the temporal rhythm of action and the oscillation between multiple actors as coordinated by the computer. Their examples include synchronizing multiple players in a network, but also the temporal characteristics and rhythms of turn-based games. This frame might be an interesting addition where the analysis focuses on the influence technology plays on the game experience in depth. For the purpose of this thesis, I will ignore or rather subsume it under the category of game event time which it structures
in part, and from which it remains hard to distinguish in single-player games. In Figure 10, I have sketched how Aarseth’s emphasis on ergodic contingency and Zagal and Mateas’ model of temporal frames appears in the context of the computopic universe.

Figure 10. The temporal structure of videogames.

In this model, any gameplay session, symbolized by the large arrows, involves at least three different temporal frames. Multiple sessions (either by different players, or the same player) may contribute to a specific successively unfolding computopic world, in which the player follows a story to the end, or may generate different worlds altogether, in which different stories or events take place. In the following
exploration, I focus on the ways in which the expressivity of the computopic space can be deployed deliberately to create disruptive temporal experiences. Interestingly, Zagal and Mateas (2010, 854) mention a potential friction between these multiple frames of temporality: “The relationships between different, often coexisting, temporal frames within one game can result in a sense of temporality that is inconsistent, contradictory, or dissonant with our experience of real-world time. We call these relationships temporal anomalies.”

While not elaborated on by the authors, this notion of the anomaly is a helpful starting point for the analysis, because it points to nothing else than potential temporal conflicts disruptive of our ‘normal’ or common temporal understanding—as their choice of the term anomaly suggests. Against the background of Ricoeur’s emphasis on the event, its narrative structuring, and the actors involved in the process, the following sections examine several sites of disruptive temporal conflicts, focusing on the two time travel games Chrono Trigger (1999) and Shadow of Memories (2001).

6.3 Playing at the End of Time

Time and time travel are central themes in the rpg Chrono Trigger (herafter CT).91 In the game, the player has to save the earth from its future destruction, travelling back and forth between times as distant as 6500000 B.C. and 2300 A.C. Following the example of other Japanese rpgs, the game features several areas—the more common spatial separation is replaced by a temporal one—which have to be visited in a more or less predetermined order to proceed. All areas offer various quests at various stages of the overarching narrative and have to be revisited several times. The game world events are strongly pre-structured in the beginning, leading the player through several introductory stages that set up the story and familiarize him or her with the gameplay. Later chapters are more open and, in lack of guidance, require more intensive detective work.

While travelling, the player has to combine the strength of multiple characters to solve quests and fight mighty enemies, employing both brute force and magic.

91 Chrono Trigger was created and released by Squaresoft (today Square Enix) in 1995 for Nintendo’s Super NES and in the version used here ported by Tose for the Sony Playstation in 1999. Outside of Japan, the game was first released for the Nintendo DS in 2008. If not stated otherwise, knowledge about the game originates from my own gameplay or the “Chrono Trigger” section of the Chronopedia on wikia (2013d).
In this sense, the game can be said to be an example of the tendency towards sf-fantasy hybrids, which I have rejected above. However, I have nonetheless included it in the selection because in the context of time travel, this ambiguity is actively reflected on in a side-narrative about scientific progress. The first of a series of time gates is opened accidentally when a princess’ pendant reacts to a scientific demonstration of a teleporter at the Millenial Fair in the game’s present. Other gates follow and are revealed to respond to magical forces, but at the same time, the game features a scientifically constructed time machine called “Epoch,” which frees the player from the restrictions the locally bound time gates imposed. This scientific achievement affords an openness and contingency, which contributes to the genuine quality of the widely acclaimed feature of multiple endings in CT (see Figure 11).

Figure 11. Multiple endings in CT. Compiled based on Haunter 120 (2004), McFadden (2003), nemiminijam (2009), Pringle (2009), wikia (2013e).

These endings, or rather the entry points to them, emphasize the successive character of the game event time, which is linearized in online walkthroughs by the frequent use of “after” and “before.” Departure from the path of the conventional ending "Beyond Time" not only requires specific actions during certain spans of game event time. The alternative endings also depend on considerable player skills.
For example, ending 3 is frequently referred to as the most difficult one to achieve, because the player has to defeat the last boss moments after entering the game, with only two characters and without the additional supplies one can built up later during the game. Due to this structure, the command over game world time through player choice—insofar as events can be delayed or hastened—seems to be reintegrated into a mechanism of acceleration, which rewards higher skills with shorter completion times.

Yet, several objections complicate this conclusion. First, the ‘quick and skillful’ solution to the game not only takes away large portions of the experience—which seems counterproductive considering that the game is supposed to be entertaining. It should also be mentioned that some of the endings, like ending 3, are only accessible after the first successful conclusion. Thus, rather than pointing to short-cuts in a linear narrative, the structure of multiple endings in CT encourages repetitive gameplay and extensive skill development. Rather than accelerating or contracting, this structure prolongs the player’s experience of the game, in which each ending can be regarded as a puzzle piece needed for ‘completely completing’ the game. In a sense then, the multiple endings do not only expand the experience beyond the initial completion, they also render narrative time spatial, with player choice as the factor relating the computopic worlds—challenging the player to explore the CT universe by straying from the obvious paths.

The number of endings available limits this potential. Yet, this limitation should not be regarded as restriction per se. On the contrary, if the number of endings were in fact unlimited, their pursuit would become random, arbitrary, and meaningless. The spatialization of narrative multiplicity is only effective as long as it stays in touch with defined narrative structures and thus generates a tension between limitation and openness. This suggests that the player not only influences the outcome of the game (its narrative path and ending), but also is able to reconfigure the events individually. At the same time, online walkthroughs show how multiplicity and temporal complexity in CT prompt cooperation between

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92 As HIRYUU (2006) puts it on rpgclassics.com: “Ah, Endings. They give games life. What a great advent for the gaming community. Sure, Pac-Man can be fun, but is it really fun to just keep playing until the game simply crashes on you? We, as a society, yearn for closure, and the endings provided in the games give us satisfaction, and they allow us to reflect back on our accomplishment, and realize that we have become the masters of our domain. We have taken this untamed beast of a game, and completed it, and the ending for the game is our great reward. Often, games may disappoint with their endings. A simple showing of the credits and little else (or that stupid ‘That’s Benjamin, you nut!’ line in FF: Mystic Quest). Luckily for us, Chrono Trigger features a multitude of endings for our greedy selves.”
various individuals, who all contribute to the goal of understanding the game inside-out, completely completing it even in respect to details not directly relevant for the gameplay.93

In its openness, contingency, and multiplicity of endings, CT appears as a model case for the ergodic cybertext and the tension between lasting pleasure and skill-based abruptness. However, it remains coherent even in its contingency. The different temporalities are historically continuous, and the ending variations leave the linear cause-effects relation intact.94 A similar tendency can be observed in other games, like Final Fantasy X, of which Dennis Washburn (2009, 160) argues that it “serves as an analogue to Japan’s experience of modernity. A linear perception of history that stressed the concept of progress through the development of technology and the rise of the corporate state led to the intense production of sites of collective memory as a way to simulate the sense of possessing a shared identity, history, and culture.”

In contrast to the consistent contingency in CT, Shadow of Memories (hereafter SoM)95 disrupts such overall compatibility with linear time radically. A third person adventure, SoM centres on the protagonist Eike Kush, who is assassinated in the prologue. Eike wakes up in a strangely disordered space, where the mysterious creature Homunculus offers him assistance in his struggle for survival. Accepting, he is presented with a time travel device called “digipad.” In a total of 10 chapters, each of which starts with a new successful attempt on Eike’s life, the player has to navigate the protagonist back and forth between four time zones, 1580, 1902, 1980, and 2001, and, using the revived Eike, alter the already known future by changing the past. Through Eike, the player can explore his environment and engage in conversations with the inhabitants. All actions take a specific amount of time, and if the player fails to rearrange the past successfully after a certain span, he fails to prevent Eike’s death and the game ends.

Like CT, the game features several endings depending on certain player choices.

93 See for example the credit sections of “A” Tadeo’s (2001) or KoritheMan’s (2008) walkthrough. This kind of voluntary, intense cooperation is quite common in videogames and deserves more attention from the perspective of community studies—attention this thesis cannot grant it.

94 Whereas some of these appear rather unmotivated, most can be explained logically from the earlier gameplay, such as the appearance (or absence) of several characters the player can choose to rescue, spare, or kill during the adventure.

95 Lead designer of SoM is Kawano Junko. The game was released by Konami for the PS2 in 2001, and later ported to the XBOX, the PC, as well as recently to the Playstation Portable. In the U.S., it is published as Shadow of Destiny.
A closer look at the relation between the multiple endings and the overarching narrative in SoM shows, however, that this game experiments far more radically with the player’s sense of time than CT does. The player starts SoM without much information about the protagonist or his world. Throughout the chapters, he or she finds more and more hints about the connections between the inhabitants of the different times, their relation to Eike, and the reasons why he is targeted in the first place. However, the epilogue reveals that the culprit is in fact another character who obtained the ability to travel through time, and who targets Eike for something he did during his travels to the past—a journey to the past which he embarked on only to avert the threat to his life. To the extent to which this ‘conclusion’ involves a temporal paradox, it suggests the logical impossibility of its narrative, disappointing any expectation of clarity on the part of the player. The multiple endings featured in SoM shown in Figure 12 amplify this effect.

Figure 12. Multiple endings in SoM. Complied from Virgil (2001) and the SoM Wikipedia (2013r) entry.
Unlike the coherent picture in *CT*, they confront the player with contradictory conclusions. These conclusions range from eternal life for Eike or the logical impossibility of his existence due to the death of the Homunculus in the past, to Eike’s ironical death by accident in the present after the threat is already averted. Thus, the epilogue appears as a stage for the playful, paradoxical and often deliberately inconsistent treatment of the overarching narrative. While somewhat parodist, these endings do not lose touch with the vague overarching plot, thus tempting the player to engage with their content. In other words, the overarching narrative and the paradoxical, subversive conclusions are related reasonably enough—and linked by the fictive game history strongly enough—to challenge the player into pursuing them. Yet, ultimately revealing their incoherence, they create what could be called an experience of ontological anxiety. In Ricoeur’s terms one might say that the game offers a glimpse of a non-human time, to the extent to which the poetic act confronts the player with a disruptive conflict, because he or she is unable to emplot or narrate the paradoxical events, but can neither easily dismiss the connections between the events and regard the overarching narrative as postmodern—that is, fragmented and decontextualized.

Without an overarching narrative in place, the effect of these contradictions would not be experienced as disruptive. However, by means of temporal paradoxes and narrative inconsistencies, the game confronts the player with the impossibility of narrating its events in any coherent way. As with the example of *CT*, the effectiveness of this strategy is made possible and at the same time restricted by the limited number of endings, pointing the player towards collecting versions instead of aiming for a narrative totality. As Figure 12 indicates, such collecting is promoted by the designer, who rewards the successful collector with an additional ending (EX) only accessible once all other endings have been experienced. However, here, the desire for collecting or mastering the game completely is deliberately played out against the impossibility to narrate the game. As long as the player does not abandon the narrative layer entirely, this conflict between ending collection and narrative closure can have a disruptive effect on our sense of linear temporality.

### 6.4 Death as a Solution

The computopic universe of *SoM* offers an alternative to such narrative engagement. Each chapter features several events and cut-scenes unrelated to either the
pursuit of the initially proclaimed game goal of survival, or a deeper understanding of the game world history. In chapter 5, for example, Eike promises the little girl Sybilla a kitten in 1902 (see Example 6.2). The player can choose to travel back to 2001 to fetch the kitten or not, or might decide to skip the meeting with Sybilla overall in favour of a faster pursuit of the chapter goal. Neither choice has any impact on the outcome of the chapter (Eike’s survival) or provides more information about the overarching narrative. However, completing the kitten side-quest contributes to raising the player’s achievement in the chapter, as a screen after the ending of the game reveals (see Figure 13).

![Figure 13. Achievements first author attempt at SoM.](image)

As with the multiple endings, this feature attracts repetitive play, this time targeting the game system. Contrary to the initial impression of linearity and a lack of choice, each chapter offers many more scenes to discover, many more kittens to give, so to speak, each contributing to player achievement.96 While again pointing to the structure of limited prolongation and complete completion mentioned

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96 Tavinor (2009, 126-127) argues that the gameplay in SoM is too inert and limited in its choices and its interactivity. In his view, SoM provides “only very superficial authorial control on the part of the player”—and, he adds, necessarily so, since “definiteness” is a crucial factor for narrative success. I have made similar claims about the importance of closure and finiteness above, and agree with Tavinor that SoM offers less contingency than open-world games. However, unable to exhaust the game in my explorations on either the narrative or the systematic level, I have to admit that I do not agree with his claim about the lack of choices.
earlier, the player is confronted with a far more vague system, which demands more extensive, calculated and planned exploration and collection. The Percentage FAQ by JackSpade (2002, see Appendix A) is not only based on repetitive, interrogative play, but also shows that the complexity of the system prompts multiple theories about its nature, as put forward by JackSpade and Roberto Corsaro (see parts highlighted in grey in Appendix A).

Such approximation of the inaccessible, non-disclosed elements of the computopic through what could be called a playful process of falsification is a common methodology for playing—and in my case, analysing—videogames. In SoM this exploration of the system’s boundaries can be profoundly disruptive, where it confronts the player with conflicts beyond common sense.

Arguably the strongest expression of such conflicts can be found in what JackSpade refers to as “multiple death scenes” (hereafter “mds”). Figure 14 shows a map of the mds in the second chapter of the game, which I have documented in Example 6.1. Mds are scenes that add to the achievement and have to be collected by triggering the protagonist’s death deliberately. After the repeated introductory dialogue (i1) following the first death, the player can either choose to depart to the past immediately—the move suggested by the blinking digipad and the anticipated assassination—or try to walk away from Dana. The second, initially counter-intuitive move results in a different conversation with Dana (d1 & d2), followed by another death. After the second assassination, the Homunculus tries to teach Eike how to use the digipad (H2).

Following this, the player witnesses a different version of the introduction (i2). Walking away from

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**Figure 14. Multiple death scenes in chapter 2.**
Dana once more unlocks another dialogue (d3) and a blunter hint from the Homunculus (H3) after the third death. This strategy works one more time (i3 and d4), until the events start repeating themselves after the fourth assassination.

In this way, mds explicitly create a conflict between systematic completion and the original narrative structure and game goal of survival, prompting an active departure from it. Importantly, their disruptive character is not simply a way of enacting an Other reality, in which death is not the end—the latter is quite common in videogames. Rather, its disruptive power is derived from the fact that it is in open contradiction with the reasonable narrative game goal of survival and thus the player’s earlier experience of the game. This tension negotiates our understanding of time, actively confronting the dominance of linear narratives and biological time.

In a strange way, the system-oriented play reverses Paul Virilio’s (2006, 46) dictum that “[e]verything in this new warfare [of the contemporary war of time; mere] becomes a question of time won by man over the fatal projectiles towards which his path throws him. Speed is Time saved in the most absolute sense of the word, since it becomes human Time directly torn from Death.” In the assault on the game system and its interest in percentage, the player uses the ‘immortality’ of the protagonist in the computopic space as a probe, subjecting time and even death to the aim of total numerical domination. In the absence of any emphasis on player skills, progression is achieved by repetition and death.

This structure is, again, not unique to SoM. However, because the game deals with time explicitly, these moments become temporally disruptive, whereas they are simply part of the rules in other cases. The designer indicates that she deliberately aims to trigger reflections and thinking about time, both in an abstract philosophical sense, with themes like destiny, memory, time travel, the Homunculus, or eternal life, and in a practical sense related to the player's everyday experience: when visiting the library in chapter 5 (see Example 6.2), the player may pick up a fictive book from the shelf, which asks in its title Is being busy being happy? While engaged with narrative play, this appears as a reflexive, almost parodist moment, because the player is busy ensuring Eike’s survival and would not stop in order to read the book, even if that was possible. Yet, the game system provides precisely this kind of disruptive escape from narrative linearity and speed at the expense of death.

97 I am grateful to Harold Hays (Leiden University) for pointing this out.
6.5 Paradoxical Action

Both *CT* and *SoM* explore the science fictional trope of time travel, albeit in very different ways. *CT* positions time travel (the “End of Time”, the “time gates”, and the time machine “Epoch”) between magic and technology, deploying it to create narrative coherence and to relate diverse game spaces meaningfully. On the level of rules and game system, time travel serves to justify the limitation of the number of active characters at one time,98 as the OLD MAN explains when the protagonist first reaches the “End of Time” in the game:

OLD MAN: Why, this is “The End of Time,” of course! All lost travelers in time wind up here! […] It is pretty bleak here… But not to worry. All time periods connect here… You can visit your friends whenever you wish! But you can never travel in groups greater than 3… (*Chrono Trigger* 1999, translation taken from WaterExodus 2011)

One might say that, by referring to time specifically, the game draws our attention to the question how rule-based structures can be translated into a temporal framework. At the End of Time, all potentialities (non-active characters) wait to be called up by the player. Against the background of the time travel narrative, this might challenge us to imagine a timeless space connected to all moments in history, in which all discarded characters and potentialities in general dwell until further notice. This ‘timelessness’ of space is, in a way, technically adapted to the Epoch, which allows the player to access any time available in the game at any time. Where Virilio’s dromology suggests a reduction of space to temporal immediacy, *CT* reduces historical time to instant accessibility.99 At the same time, the game events put the player in charge of speed and rhythm to the extent to which they have to be triggered by his or her input. However, in *CT*, this command over the emplotment and the restructuring of time and history it implies, is limited to flânerie and levelling-up before turning to the next task, thus leaving the temporal linearity intact.

In contrast, *SoM* deliberately deploys time-travel to create paradoxical situations. What is more, the player can actively cause and explore them. Frequently, the

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98 As with most single-player role-playing games, *CT* features multiple characters who are different from each other in appearance, skills, and function within the group. Given the limited number of characters allowed in the fights, the player has to decide on which characters make the best combination, rearranging them according to the upcoming tasks and adversaries.

99 To the extent to which this temporal multiplicity can be translated into a spatial multiplicity, a similar structure can be found in most rpg, in which the player traverses great distances in the beginning—only to be presented with accelerated or even instant transportation means later on in the game. Themability appears also on this level.
player enters so-called causal loops. Ryan (2009, 150-151) asserts that “you cannot travel back in time,” pointing out the potential conflicts time travel causes for the common one-directional cause-effects relation and the impossibility of changing history. **Example 6.2** shows a contracted version of chapter 5, the major events of which can be ordered (configured) as in Figure 15. The figure includes the successive player time (pt2), the configurative game event time (gt2), and two versions of the fictional time, one referring to the configurative (in-game) and one to the successive (overarching historical) ordering of time. As in other chapters, the player can alter the past in chapter 5 in ways that effect the present. The red emphasis in the figure shows the paradoxical effects of some of these changes. Eike receives a kitten from Eckart Brum in the museum in 2001. As soon as the player uses him to change the past by recommending a library in the conversation with Alfred Brum, the event in the museum cannot be possible if we conceptualize historical or world time as a linear flow. That is, if the past and the future are connected in the way in which they are commonly perceived, the alteration in 1902 should also have an effect on the present, which follows it even if the player has experienced it at an earlier point in his or her time. This example of a causal loop is an effective use of the multi-layered temporality in videogames, insofar as it contrasts the player’s successive experience of the gameplay (pt2)—his knowledge of earlier events and chapters—with the configurative and highly selective character of the events that define the rhythm of the game world time (gt2) but, referring to a fictive layer of historical dates, also point to successive time (ft2).

The references to a successive history throughout the game are deployed in a disruptive and ontologically threatening way, because the fictive history (ft2)

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**Figure 15. The temporal structure of the main events in SoM, chapter 5.**
contradicts the player’s successive experience (pt2) of the SoM universe and its events (gt2). The only way to explain the events is by translating the configurative game world time into a successive story of progress with regards to the task of surviving. Such linearized game world time marks the difference between what Ryan (2009, 154) distinguishes as a pragmatic sense of time based on our everyday experience and a purely temporal sense of time. She argues that backward causation only appears reversed in a pragmatic sense, whereas in a strictly temporal sense, one might say that time runs in one direction but some causal relations run in the other. With this distinction in mind, one could say that some events of the game world time in SoM are diagonally opposed in their causal direction to its fictive time. This not only provides an explanation for the temporal structure itself, but also indicates that from the perspective of player experience and his or her pragmatic sense of time, this reversal can appear disruptive precisely because it goes against intuition, prompting him or her to make sense of the conflict or anomie between the temporal frames.

Philosopher David Lewis discusses the paradoxical nature of time travel in the second volume of his *Philosophical Papers*. Lewis (1986, 69-70) distinguishes external time or “time itself” from personal time, the latter functionally understood as “that which occupies a certain role in the pattern of events that comprise the time traveler’s life.” In order to solve the problem of diverging temporalities, he suggests that “whereas a common person is connected and continuous with respect to external time, the time traveler is connected and continuous only with respect to his own personal time” (72). Based on this distinction, Lewis proposes to solve the paradox of “inexplicable causal loops”—instances where a time traveller erases the cause of his own existence—by replacing the concept of successive time with that of a “branching time,” the branches of which would have to be separated “not in time, and not in space, but in some other way” (80).

From this perspective, each event potentially marks the beginning of a new branch from the traveller’s point of view—who does not return to an altered future, but to an alternative one on a different branch. In the context of videogames, one could identify the player’s actions as the link between different temporal branches, which is frequently discussed in terms of labyrinths and tree structures. The structure of the multiple endings in *CT* and *SoM* (Figure 11, p. 102; Figure 12, p. 105) can be regarded as examples in this respect. Likewise, one can conceptualize the alterations made during time travel as bifurcation of temporal branches in the
game world time (with Lewis, “time itself”), which remain linear in the successive experience of player time (“personal time”). This observation highlights both the importance of action for relating the worlds of a computopic universe, and the crucial contribution the successive frame of player time makes to our experience of videogame time. Yet, a closer look at chapter 5 reveals that the temporal structure of SoM is even more complicated, once we take the mysterious—somewhat magical—creature Homunculus and his dwellings into account as an additional novum next to the digipad. In Figure 16, I have related the game events and the successive player experience of the introduction to chapter 5 with the fictional time of the protagonist.

Figure 16. Temporal multiplicity in chapter 5 of SoM.

100 The implications of this claim cannot be fully explored here. The myriad ways in which the player can actively influence a game world reality could suggest that, on a theoretical level, even the metaphor of branches cannot cover the situation comprehensively. This problem seems to be closely related to Lewis’ differentiation between actualization—here the choice of a path somewhat predefined by the designer—and actual change—something not intended in the game system.” You cannot change a present or future event from what it was originally to what it is after you change it. What you can do is to change the present or the future from the unactualized way they would have been without some action of yours to the way they actually are. But that is not an actual change: not a difference between two successive actualities” (Lewis 1986, 76). This suggests that the character of the action and its relation to the game world might be framed as ranging from meaningfully-actualizing to radically-meaningless and unpredicted. It would be interesting to discuss these issues in more depth against the background of repetition.
The figure shows how SoM creates an intricate multi-layered temporality by reviving the protagonist after death. The game presents the player with the successive experience (pt1 + pt2) of two alternative configurations of events, gt1 and gt2, which are both related to the fictive in-game time ft1. During gt1, the fictive duration of the dinner sequence or Eike’s death cannot be determined. Considering that Eike is outside on the street at the beginning of gt2, when the player takes command, it seems safe to assume that he has already had his deadly meal. However, given that it takes only 1:45 minutes for the poison to take effect during gt1—the time dialogues take is reflected fairly accurately on the progression of fictive time of the game—the amount of time the player has to solve the puzzle in gt2 contradicts this hypothesis. If, on the contrary, Eike has not been poisoned yet, one might wonder when the attack is committed, given that the player controls Eike during gt2. Yet, when we travel back to 10 PM in 2001 after obtaining the antidote, the same Eike is already intoxicated and has only 10 seconds to live—this span is fix regardless of how long the player takes to solve the riddle.

If the strange “doppelgänger” is not ascribed to the mysterious, magical powers of the Homunculus, this paradox can only be explained if we accept that Eike has in fact split for some time and merged again (hence the two fictional timelines in the figure), combining both experiences/histories again as soon as the quest for the antidote is completed. Thus, while SoM suggests some coherence on the surface, a closer look reveals that time travel is deployed here in a vague, not necessarily logical way. This is not entirely surprising, given that the game sets off with the resurrection of a dead protagonist. However, it nonetheless provokes the player to think about its temporality and question its possibility, to the extent that even branching time cannot cover. The player, who experiences both gt1 and gt2, is left with a strange uncertainty caused by the fact that the structure of each chapter makes enough sense to be enacted successfully with ease, but at the same time appears logically and ontologically impossible. By presenting us with a conflict between the clear sense of time applied when solving the puzzles and a radical, impossible temporal structure, the game confronts us with the question, if not the everyday practice of reducing temporal complexity to a functionally framed, linear set of events that obscures our own temporal complexity.

To the extent to which the temporality generated in this conflict does not follow common sense or logical considerations, the effects of a player’s actions are not fully predictable and can only be justified on the basis of the game system and its
requirements. In its repetitive and tentative attempts in trial-and-error fashion, SoM allows us to play with and experience its temporal complexity beyond logical or imaginative engagements. In addition to Marie-Laure Ryan’s list of logical, philosophical, and imaginative ways to deal with temporal paradoxes and fictional irrationality (see section 2, p. 97) SoM offers the player a computopic universe for experimenting with such paradoxes in action.

6.6 Conclusions
This chapter has examined the ways in which Chrono Trigger and Shadow of Memories deploy time travel to facilitate narrative coherence or to create disruptive temporal conflicts. Added to the initial figure of videogame temporalities, these disruptive configurations appear as in Figure 17.

Figure 17. Temporal disruption in SoM.
Based on a rough characterization of temporality in videogames, I showed how the multiple, paradoxical and contradictory endings in SoM create a tension in the context of an expected narrative closure, disrupting our sense of linear history. On another level, the narrative goal of survival and its underlying assumption of linear, biological time is contrasted with a systemic goal of collecting scenes and raising achievements, at times by actively departing from the narrative and thus from linear time. A last, profoundly disruptive conflict was shown to exist in the tension between linearity and action itself. Here, the player is the source of conflict, because he can not only enact paradoxes of time travel, but also proceed despite the contradictory or inconsistent temporal character of the world. In this, SoM shows that videogames have the potential to confront the player with a paradoxical temporality that can be enacted even if it cannot be emploted with sufficient coherence.

For Ricoeur (1984, xi), the plots we invent are “the privileged means by which we re-configure our confused, unformed, and at the limit mute temporal experience.” The conflicts that arise between different plots and temporal layers in SoM in turn confront us with temporal uncertainty. Here, understanding, in Ricoeur’s sense of grasping the operation that unifies events into one whole and complete action (x), is not possible. This impossibility leaves the player puzzled, and maybe curious. In the instances discussed above, repeated, contingent player action and its related temporality seems to make a crucial contribution, be it due to the memories of successive experiences of multiple game worlds, due to the potential to change the past in various ways, or due to intuitive action in lack of a comprehensive understanding of the presented world. This highlights the importance of player memories and the linear progression of player time. Michel Nitsche (2007, 149) observes that reversal and repetition in videogames have a distinct expressive quality because they are experienced as different due to the knowledge the player gained in each attempt. Drawing on these observations in his discussion of memory in videogames, Souvik Mukherjee (2011, 8) argues that “[w]hen the gamer revisits and replays a certain part of the videogame many times, the actions might look the same and the remembered instances might all be seen as copies of each other. However, these remembered instances vary and paradoxically, although they might represent the same event, they are different.” Here, difference is a function of the accumulated memories of the player, which change the perspective on a scene with each repetition. SoM turns this effect upside
down by consciously disrupting our sense of continuity and rejecting our attempts to connect the events experienced during the player’s successive experience of multiple playing sessions.

Insofar as videogame play not necessarily depends on interpretation, but more directly on action, Ricoeur’s model of the successive mimetic three-step might have to be revised in a sequential study. The player is not only in part responsible for configuring or “emploting” the computopic through configurative gameplay (mimesis 2, targeting game world events), this emplotment is also immediately experienced, interpreted (mimesis 3) and can in turn be adjusted. This suggests a partial coexistence of the second and third mimesis. Furthermore, in the absence of certainty, the “worldly” actions (mimesis 1) which serve as the basis for the poetic act (mimesis 2), are in part actions the player has to carry out in order to make sense of the world and its plot. In other words, in the closure of computopic spaces of Otherness, the player contributes to all three mimetic steps, albeit in a limited sense insofar as it is pre-structured by the designer (emplotment). In this sense, videogame temporality may be regarded as contraction of the mimetic three-step described by Ricoeur, and a merging of its protagonists.

In all cases, the disruptive conflicts risk being ignored. In this respect, the science fictional novum of time travel, and that of the Homunculus, appear as a particularly direct, deliberate, and explicit way of both achieving such a tension, and resolving it—after all, their existence can be blamed for all inconsistencies if necessary. However, I maintain that SoM succeeds in confronting the player with disruptive temporal conflicts. Deliberately combining the structural potentials of videogames with the plausible but potentially vague character of the novum, the game offers a universe particularly rich with peculiar, “anomal” temporal moments and challenges the player to think about the nature of time and its mechanisms.\footnote{I would go as far as to claim that, such contradictions cause a vague feeling of disruption even if the player does not attempt to find reasonable explanations in every instance.} In the extreme case, this includes the failure to structure gameplay experiences in SoM in narrative terms. Against the background of Ricoeur’s insistence on the reciprocal relation between the narrative and human time, this can be interpreted as a sign of radical, non-human temporal Otherness.

Videogames like SoM might not offer a concrete alternative conceptualization of time—given the long-noticed difficulty of explaining time in general, this is not surprising. However, the disruptive conflicts identified arguably have a similar,
if not stronger effect as Virilio’s “picnoleptic” absences of the mind, of which he claims that

[i]f you admit that picnolepsy is a phenomenon that effects the conscious duration of everyone, […] anyone would now live a duration which would be his own and no one else's, by way of what you could call the uncertain conformation of his intermediate times, and the picnoleptic onset would be something that could make us think of human liberty, in the sense that it would be a latitude given to each man to invent his own relations to time. (Virilio 2009, 31-32)

To the extent to which SoM allows us to reconfigure, restructure, and play with time beyond linearity and even beyond logics, it confronts us with temporal liberty in a distinct, radically experiential way. In literary fiction,

[n]arrative paradoxes are like the holes in a Swiss cheese: they only exist as holes because they are surrounded by a solid texture of rational events. They differ from what is commonly regarded as “plot holes” in that they are an integral part of the plot and a source of meaning, rather than an inadvertent contradiction or insufficiently justified motivation that the reader either oversees, forgives, or regards as a defect. (Ryan 2009, 160).

In games, the player can configure time on multiple levels, and repeatedly so. Whereas narratives involve a disruption of linear time only in the emplotment of actual events, the disruptive potential of SoM is grounded in the fact that the player can configure events already on the level of the events that serve as the basis for the emplotment. This includes repetitive play and the possibility to experience different temporal configurations within the same universe, juxtaposing the pursuit of survival with the deadly systemic achievements. Contrary to my initial assumption, the disruptive temporal conflicts in SoM are not based on non-narrative qualities alone, but rather depend on a powerful narrative and a suggested successive, linear temporality for their tension. On a very general level, the disruptive, experimental quality of repetition and playful exploration is possible to the extent to which it is limited: Ricoeur’s insistence on the reciprocal relation between narrative and human time here appears as the condition for temporal disruption, with the human player as the agent of a successive experience. How else could the shifts and breaks be meaningful?
7 Alien Aesthetics

Ultimately perhaps, [...] the alien, fully assimilated, its Difference transmuted into Identity, will simply become a capitalist like the rest of us. (Jameson 2007, 141)

Sensual expression is an important element of the computopic space. To the extent to which it involves visual, sonic, or haptic signals, gameplay is also accompanied by an aesthetic experience. The term aesthetic experience is at the centre of a vivid discourse about the possibility of novelty; a discourse which is concerned with whether we can literally imagine or experience something new. The following chapter asks if and how the computopic space can contribute to novel aesthetic expression and experience. In doing so, I am not asking whether videogames are beautiful or artistic. This question has been addressed by several recent inquiries, which discuss videogames as art.102 Rather, the analysis focuses primarily on the sensorial experience of gameplay and the interaction of the player with the computopic world and its inhabitants, asking what conflicts arise from it and how they might influence and stimulate our political ideas, thoughts and visions.

7.1 Aesthetics and Politics

The aesthetic experience itself is characterized by a paradoxical relationship between immediate sensual perception and mediate aesthetic judgment about what is perceived. Thomas Munro and Roger Scruton (2010, no pn) summarize this paradox in an entry on “Aesthetics” in the Encyclopedia Britannica Online as follows:

[T]he expression aesthetic judgment seems to be a contradiction in terms, denying in the first term precisely that reference to rational considerations that it affirms in the second. [...] On the one hand, aesthetic experience is rooted in the immediate sensory enjoyment of its object through an act of perception. On the other, it seems to reach beyond enjoyment toward a meaning that is addressed to our reasoning powers and that seeks judgment from them.

102 For a general discussion of videogames as art, see Tavinor (2009). For other approaches on videogame aesthetics, see for example Phillip D. Deen (2011), who applies John Dewey’s aesthetics to videogame play, or Michael Burden and Sean Gouglas (2012), who examine the aesthetics of algorithmic play in the game Portal.
As the entry explains, this contradiction has attracted the attention of many philosophers. Some have, for example, attempted to bridge the two by invoking the imagination. The difficulty, vagueness and complexity of the issue is hinted at in the evaluation the entry offers of such attempts: “[E]ven if we find this general invocation of imagination, as the 'synthesizing force' within perception, vacuous or unilluminating, we may yet feel that the imagination has some special role to play in aesthetic experience.”

This chapter does not intend to offer an account of the theoretical relation between the aesthetic experience and the imagination in general. Rather, it limits its attention to those moments in which the aesthetic experience can be a site of disruptive conflicts and novelty. Aesthetic conflicts or aesthetic novelty are not only stimuli for political imagination in an abstract sense. Jacques Rancière points out that aesthetics is also a direct condition and limitation for political action. Rancière (2008, 34) regards politics as a conflict about the nature and demarcation of a common space, about defining common objects and identifying those who possess the ability to a common language, in a general sense of the word. He calls this division of space “distribution of the sensible,” meaning “the system of self-evident facts of sense perception that simultaneously discloses the existence of something in common and the delimitations that define the respective parts and positions within it” (Rancière 2004, 12). In his view, our concept of aesthetics is such a distribution, “a delimitation of spaces and times, of the visible and the invisible, of speech and noise, that simultaneously determines the place and the stakes of politics as a form of experience. Politics revolves around what is seen and what can be said about it, around who has the ability to see and the talent to speak, around the properties of spaces and the possibilities of time” (13).

For Rancière, both politics and art aim to (re)define the boundaries of this common space. “Politics and art, like forms of knowledge, construct ‘fictions’, that is to say material rearrangements of signs and images, relationships between what is seen and what is said, between what is done and what can be done” (Rancière 2004, 39, see also Rancière 2008, 35). In plain terms, the distribution of the sensible influences the common space we perceive as field of political action, as well as the action we perceive as possible in this space. Political action and aesthetic experience, in turn, have an effect on this distribution and may shift it towards formerly politically irrelevant or even unknown realms. The question is, whether aesthetic conflicts in the computopic space can contribute to such shifts.
in the boundaries of what is perceived as common, thus stimulating novel, radical imagination and respective action.

Once again, the underlying question is, if and how novelty or, in this case, ‘aesthetic Otherness’ is possible. Rancière emphasizes the discriminatory function of the aesthetic distribution of the sensible, but does, as far as I can see, not give a clear answer to the question if the invisible is non-existent or only not relevant. In other words, he remains vague about the possibility of absolute Otherness. As already mentioned (see chapter 2, p. 11), Jameson expresses doubts about the possibility of absolute Otherness more explicitly. In the context of aesthetics, he reiterates these doubts, stating that “a new quality already begins to demand a new kind of perception, and that new perception in turn a new organ of perception, and thus ultimately a new kind of body” (Jameson 2007, 120). His introductory quote questions our ability to imagine the Other in the first place. With this sceptical challenge in mind, the following sections examine a series of potentially novel aesthetic experiences in videogames. More specifically, I turn to representations of the alien as one of the most radical and, as Goto-Jones (2010, 22) observes, literal encounters with science fictional Otherness.

7.2 The Alien in Computopic Space
Discussing the possibility of radical Otherness in Stanislaw Lem’s science fiction, Jameson (2007, 116-117) concludes that radically alien life can only be contacted, perceived and imagined at the cost of replacing its unknowability and absolute, non-communicable Otherness with anthropocentrism. In order to make sense of the unintelligible alien covering Solaris, we have to apply known categories like friend/enemy. Even “in imagining ourselves to be attempting contact with the radically Other, we are in reality merely looking in a mirror” (111). In Lem’s The Invincible, on the other hand, we are confronted with a seemingly radical combination of “intelligent non-organic” crystals. Yet, a closer look reveals that they are, in some way, also a product and thus connected to human ideas of production and the limitation of our imagination to human artifice (113-115). The only successful strategy against the impossibility of knowing and representing the alien Jameson (140) refers to explicitly, is a consequently partial representation, as found in the film Alien, in which the audience never sees more than parts of the creature.

Adam Roberts (2006) does not reject the possibility of radical Otherness as
vehemently as Jameson and at the same time puts a stronger emphasis on the emotional quality of the alien. Discussing the film *Blade Runner*, he claims that the “combination of human, childlike innocence and ingenuousness with a machine-like strength and ruthlessness […] provides the replicants with their uncanny metaphoric potency.” Roberts identifies a more extreme example in the Borg of the *Star Trek* universe, which “represent everything the Federation is not, focusing our attention on the way their mode of being is literally beyond our ability to comprehend” (118). For him, the Borg represent “the true nature of ‘otherness’; an alien […] radically and totally unlike you or me or anything we can conceive. […] It is impossible for us to enter imaginatively into the world of the Borg because certain key values we hold, values like individuality, life/death and so on, are too centrally part of us, whereas for the Borg they are neither good nor bad but simply irrelevant” (121-123).

Both authors thus express the idea that the alien as a radical Other is only possible in the impossibility of representation, intelligibility, or imagination. This negative existence of the alien points to a central tension in the idea of disruptive conflicts. In his *Alien Autopsy*, Goto-Jones (2010) argues that science fiction, as a reflexive, critical genre in Suvin’s and Jameson’s sense, requires the alien to be cognitively estranging, but familiar enough to ensure continuity and to serve as a mirror for critical self-reflection that points toward innovation. “SF aliens should not be so very alien after all: we should recognize ourselves (and the possibilities of ourselves) in them, otherwise they do not estrange us they simply alienate us” (23). On the one hand, this points to the requirement of some kind of familiarity, or, what I have referred to as plausibility. On the other hand, it points to the limitations of the familiar to estrangement and critique. I have identified the question, if these limitations can be overcome, as a question of the possibility of novelty generated by disruptive conflicts. The problem for the analysis of the alien then is, how and how far disruption can reach into the realm of novel alienation without losing its plausibility, and how much it is ‘confined’ to critical estrangement.

The alien itself remains a vague term, beyond its appearance as a “literal” site of the tension between sensual immediacy and aesthetic judgment. In this sense, once could be tempted to regard it as equivalent with the term Otherness, with which I generally refer to novel differences from our known empirical reality. However, this abstract feature is an element of all computopic spaces to a certain extent, because they offer us worlds detached from our common experience. The
alien is used here as a more specific case of Otherness. As such, it combines the aesthetic dimension of sensuous experience and interaction that interests me in this chapter, with the element of life as a common denominator in all above-mentioned discussions and arguably the most promising source of disruption. As such, the alien embodies the tension between familiarity and alienation: plausible to the extent to which it appears as life, and disruptive to the extent to which its 'living' is utterly different from ours. In my subjective evaluation of the alien and its difference in the following sections, I am guided by my own experience and the few vague indicators Jameson and Roberts offer, namely contact or interaction, intelligibility, imagination, and emotional impact.

A brief look at the potentials and limitations of the computopic for expressing alien life helps to focus the exploration. In the computopic space, objects are enacted by the computer. In the sense that many objects feature some kind of action in the shape of routines, a formal distinction between a door and an attacking enemy is quite difficult. This does, however, not imply that one needs to invoke the perspective of “object-oriented ontology” (OOO), which regards all objects as equal on an ontological level (for a short description, see a post by Ian Bogost on his blog from December 8 Bogost 2009). Instead, the notion of disruption demands for inquiring how this action is experienced as living.

Beyond action and movement in general, many designers have been concerned with the responsiveness of the videogame world and its inhabitants. Whether based on rigid routines and algorithms, or on an ever more complex and sophisticated artificial intelligence, designers often attempt to simulate life in games. Real-time strategy games and first-person shooters show the evolution of variable and procedural elements in videogames most explicitly, confronting the player with seemingly intelligent, human-like opponents and realistic environments. Given

103 For Japan, Tane Kiyoshi (2011, 23-24) observes how Otherness [tashasei] and its representation was already an important aspect of games at an early stage. He traces its first evolution to the transition between Breakout and Space Invader, showing how the latter turned the fix block obstacles of the former into an ‘actively’ attacking [nōdōteki ni kōgeki shite kuru] enemy who thinks for itself. A similar evolution can probably be observed in the history of videogame design elsewhere as well. This desire for intelligent Otherness later focused much attention on the growing field of artificial intelligence.

104 In a talk about “The Future of Game, AI, and Computer Graphics” at the annual meeting of the Digital Games Research Association Japan (DIGRA Japan) in Kyōto on February 25, 2012, Square Enix’ lead A.I. researcher Miyake Yōichiro (2012) discussed recent trends in game A.I., pointing out that in the pursuit of realism that characterizes a share of the contemporary first-person shooters, artificial intelligence is more and more ‘humanized’ by adding accidental mistake routines. At the same time, he showed how the environment is
the absolute superiority so-called "bots" theoretically have in videogame worlds over the human player, the ways in which the A.I. systems are restricted in order to make them human-like, and to provide a challenging but manageable task for the inferior human player, can certainly be a very interesting field for philosophical inquiries. However, this is not the place for such endeavour, because this thesis is more interested in the concrete ways in which the responsiveness and Otherness A.I. systems and videogame objects in general facilitate alienate us and question our common experience of human behaviour. In other words, the focus of this analysis has to be on the disruptive qualities the alien has in its ‘non-humanness.’

As argued above, expressions of movement, rules or routines, and action cannot be divorced from their representation. This means that we need to take a closer look at the representation of the alien. As mentioned above (see chapter 2, p. 26), computopic representation is partial and transformative, because it shows only a part of the entire world at once, and reduces the data to a humanly perceivable amount. With regards to the latter, Manovich (2002, no pn) argues that the transformation maps phenomena that are beyond the limits of human senses and reasoning into a representation “whose scale is comparable to the scales of human perception and cognition.” It remains to be seen whether this potential for partial or non-representation can have similar effects to the partial representation in Alien referred to by Jameson. It seems at least theoretically possible that the alien is comprised of complex data beyond our comprehension of life, only pointed to vaguely by its representation. More so, since I have argued that computopic worlds and their representations are also partly unimagined—that is, not predicted by the designer in every detail in advance (see chapter 2, p. 32)

Lastly, against the background of Jameson’s emphasis on the impossibility of contacting the alien, the analysis has to pay attention to the ways in which the computopic facilitates interaction with such life. Frequently, gameplay is described with reference to cybernetics and Donna Haraway’s (1991, 150) influential Cyborg Manifesto, in which she develops the idea of the hybrid “cyborg as a fiction mapping our social and bodily reality and as an imaginative resource increasingly enhanced by intelligent behaviour of animals and plants.

105 Manovich’s reference to life may not be a coincidence. In his conclusion, he claims that “the real challenge of data art is not about how to map some abstract and impersonal data into something meaningful and beautiful – economists, graphic designers, and scientists are already doing this quite well. The more interesting and at the end maybe more important challenge is how to represent the personal subjective experience of a person living in a data society.” (Manovich 2002)
suggesting some very fruitful couplings.”

Jon Dovey and Helen Kennedy (2006, 109), for example, claim that “[i]n the lived enactment of gameplay, there is no player separate to the interface and game world; there is a fusion of the two into a cyborigan subjectivity – composed of wires, machines, code and flesh.” In their view, the avatar is a cyborigan representation of the player character and the player actions, the sonic, haptic, and visual experience of which is communicated to the player (112).

This claim has to be re-examined carefully. Firstly, because it presupposes the empirical validity of Haraway’s cyborg—a claim Haraway (1991, 149) herself does not make about her self-declared “ironic dream” or “ironic political myth.” Secondly, because it could imply that the player is not aware of his or her separation from the computopic. Both theoretically and based on my own experience as a player, such generalization is problematic and questionable. Games can certainly offer an intense experience that makes the player forget his or her surroundings. However, this focus on the events in the game does not imply that the player (subjectivity) has merged with the avatar in any psychological or emotional way, let alone materially. This thesis is not the right forum to discuss these issues in depth, because their empirical analysis would require a decisively different methodology.

Given my focus on aesthetic experiences as stimuli to our radical imagination, my main interest rather lies in the possibilities of aesthetic Otherness in the computopic space. This brief discussion highlighted several important dimensions of the alien and its computopic possibility, and pointed to a series of possible directions and questions for the analysis. With these in mind, and with the necessary scepticism about Otherness, I would like to turn to the games Rez (2001), The

106 For Haraway (1991, 149), the cybernetic organism is a symbol for the hybridity of human being and technology in fiction and lived experience “that changes what counts as women’s experience in the late twentieth century.” Its hybridity stems from its resolute commitment to “partiality, irony, intimacy, and perversity. It is oppositional, utopian, and completely without innocence. No longer structured by the polarity of public and private, the cyborg defines a technological polis based partly on a revolution of social relations in the oikos, the household” (151).

107 This is generally discussed by terms like immersion and “flow.” According to the influential work of psychologist Mihaly Csikszentmihalyi (1996, 110), flow refers to an “optimal experience” in an “almost automatic, effortless, yet highly focused state of consciousness,” which is experienced by diverse people in diverse activities such as sports, art, or work. Games and videogames appear highly compatible with flow, because they share many of its core conditions or elements listed by Csikszentmihalyi, for example clear goals, immediate feedback, a balance between challenges and skills, a merging of action and awareness, the exclusion of distractions from consciousness, no worry of failure, the disappearance of self-consciousness, a distortion of the sense of time, and that the activity becomes autotelic (111-113).

7.3 Minimal Response and Uncanny Indifference

A particularly uncanny expression of the alien can be found in the low-budget production The Earth Defense Force (hereafter EDF).\textsuperscript{108} According to Inoue Akito (2012, 159-160), the game is a masterpiece of game design because it is easy to learn due to its simple rules, involves an impressive enemy, and offers a rewarding experience.

Shortly after starting up EDF, the player character is attacked by a herd of giant ants which cover the screen completely. This in itself already makes the game a masterpiece, but in addition, the confused player can easily succeed in fighting off the enemies by pressing random buttons, and is commended to do this via radio. Before knowing what is going on, the player starts to feel like the protagonist in a monster movie. […] In the first five minutes, one learns how to play and gets a taste of the core attractiveness of the game." (160, my translation)

As Example 7.1 shows, EDF is a minimalist game that confronts the player with an uncanny enemy invader and requires scarcely more than to move and pull the trigger. The uncanny effect of the ants is first of all created by their size and number, by which they literally penetrate our sight, sometimes covering all the world from the player’s eyes. Compared to the properly UFO-like space ships the game features, the ants are by far the most alien objects present, although they are modelled after a well-known life-form in our environment. This is not only a result of the appearance, but to a greater extent stems from their seemingly uncoordinated, insect-like movement and their unintelligible mind-set, which, despite their invasive intentions, seems to be programmed for random aggression, as Example 7.2 shows.

The ants are an invading force, which cannot be reasoned with. At the same time,

\textsuperscript{108} EDF is a low-budget sf game developed by SANDLOT and published by D3 Publisher as volume 31 of its "Simple 2000 Series" for the PS2. According to its Nico Nico Pedia (2013) entry, the game sold more than 100000 copies. This success prompted several sequels up to today, and the EDF-series is reported to have sold a worldwide total of 1.5 million copies, making it considerably successful (Wikipedia 2013e).
they appear strangely disoriented and disinterested and may attack the player from far away, run him over or simply pass him by. This internal contradiction in the artificial alien intelligence between the signalled intension of invading earth and the disinterested, seemingly random movement, is the main source of much of the disruption experienced in the gameplay. It is emphasized by the lack of choice on the side of the player, for whom effective extinction is the only meaningful action in the game. In order to proceed to the next stage, the player has to eradicate the enemy to the last ant—while the invading insects sometimes seem quite content with aimlessly crawling through the empty streets of Tokyo.\textsuperscript{109} In addition, they move more freely through the environment than the player and occupy it more totally, due to their agility, size, and numbers. The destruction to man-made architecture is mostly caused by the player and the collateral or intentional damage he inflicts. By confronting us with this kind of imbalance, EDF not only amplifies the uncanny experience of the alien, but also disrupts the player, who is—deprived of any alternatives to shooting—alienated from the openness and emergent quality of human life in an entertaining way.

A similar minimalist tendency is at work in a different, arguably more radical way in \textit{Rez}.\textsuperscript{110} The on-rail shooter charges the player with hacking the cyberbrain space \textit{[dennō kūkan]} of a futuristic computer system called “Project-K,” in order to re-active its A.I. “eden.” According to the designer’s description, eden went to sleep to escape from the overwhelming information in the overpopulated and uncontrollable size of the network society the management of which it was created for (game manual for \textit{Rez}, 2-3). A critically acclaimed game on the border to responsive videogame art, the music-infused shooter “blurs the line between user input and audio/visual feedback, creating a unique sensory experience” (Giant Bomb Wiki 2013). \textit{Rez} features a distinctive artistic style based on responsive polygon and wireframe representations and sound effects triggered by the player’s

\textsuperscript{109} Where else should the last stand of humanity in a Japanese game take place? Still, \textit{EDF} shows how the implicit or explicit nationalism in many videogames—which is not limited to Japanese productions—takes on a rather parodist notion. Such (possibly unintended) effect is even stronger in other titles of the Simple2000 Series, such as \textit{THE Saiigo no Nihonhei: Utsukushiki Kokudo Dakkan Sukusen} \textit{[The last Japanese Soldier: taking back the beautiful home land]} (2007), in which the player has to reclaim the Japanese prefectures one by one against an overwhelming number of enemy soldiers—with each prefecture offering regional food specialties to collect in the way to victory.

\textsuperscript{110} \textit{Rez} was developed by SEGA’s United Game Artists and released by SEGA for the Dreamcast and the PS2. In 2008, lead producer Mizuguchi Tetsuya released an HD version for the XBOX 360.
actions, along with a trance soundtrack that grows complex with each new “layer” the player accesses in an area. “All of the environments move and fluctuate with the beat, adding to the synaesthesic effect of the game” (Giant Bomb Wiki 2013, see also Wark 2007, or Wikipedia 2013n). The game manual itself advertises this experience as follows:

Gentlemen, open your senses. Go to Synaesthesia. You can transform the world into your original Sounds, Lights and Vibrations just by locking and shooting the enemies. You will discover the [sic] brand new time full of rhythm as well as ecstasy. The instinct “Rez” is now finally being released. Can you really tear yourself from this sense of trance? (game manual for Rez, Coverpage)

Example 7.3 shows that Rez goes beyond deploying abstract, minimalist art in order to represent the computer network. This alone would hardly be innovative in times where, as Manovich (2002) puts it, the fact that in computer media anything can be mapped to anything makes specific choices appear arbitrary. Rather, despite its rigid patterns and on-rails character, Rez is emergent in its responsiveness to player input, which is mapped dynamically onto the sensual expression of the game world. This is a distinct feature widely acclaimed. “[W]hat sets this game apart from all others of its ilk is that with every lock on, every shot fired, and every missile deployed, a sound is made that is tonally aligned with the music and synched up with the beat. In addition to the enemies all having these attributes, this creates the effect of the user essentially improvising the song as they play” (Giant Bomb Wiki 2013). In other words, the synaesthetic quality of Rez is derived from its dynamic representation of contingent player input.

In addition, the game features a numerical element based on a hidden rule-set. Contrary to the initial impression, the game world is vast and offers long-time engagement, if the player is willing to play repetitively. It includes several hidden

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111 According to the Wikipedia (2013t) entry on “synaesthesia,” the term refers to a perceptual variety, due to which someone experiences a sensory or cognitive stimulation involuntarily in a second sensory or cognitive pathway. Artistically, synaesthesia is used to refer to multisensory experiments or the simultaneous perception of multiple stimuli.

112 The game’s designer acknowledges the influence of Wassily Kandinsky (see Sotenga et al. 2012), who is known for his experiments with synaesthetic art.

113 The world in Rez does not at all appear arbitrary—rather, the “synaesthetic” is a result of a conscious combination of highly compatible styles (trance music, abstract polygon visuals, wireframe environments).

114 Wark (2007, 138) claims that “[t]he only real problem with Rez is that it does not have enough levels. Victory is temporary, or rather temporal. You can defeat time in the game,
stages and modes, which are only accessible after outstanding performances in other areas (see Appendix B and C). Such achievement becomes increasingly difficult and requires training and concentration. Thus, it is in stark contrast to the experience of effortless action or “flow” the game offers in an early stage. However, this oscillation between a rigorous regime of numerical data, calculation, and precision, and a playfulness of sensual aesthetics is a powerful and arguably unmatched representation of the computopic and its Otherness.

In the gameplay, “analysis” is not only a part of the score displayed after each level, but literally the way the player approaches the sensual explosion on the screen: one permanently tries to distinguish threat levels and to identify power-up items on time. I have referred to this kind of analytic but strangely unfocused gameplay in an earlier chapter as intense reception in distraction (see chapter 5, p. 78). However, by generating a tension between the analytic gameplay and the synaesthetic pleasures of its responsive environment, Rez offers a direct opposition between the two elements of aesthetic experience and generates a distinct representation of the unknowable inside of a computer network. This tension is amplified and at the same time resolved—one is tempted to say synthesizes—in the so-called “Trance Mission,” which has to be unlocked with considerable effort.

As Example 7.4 shows, the Trance Mission abandons the game itself, confronting the player with a never-ending cyber-space in which neither goal nor death exists. Deprived of the avatar, the player plays without aim, risking to be trapped in the experience, as Axem Rangers (2002) remarks in his review of the game:

Quite possibly the coolest, most original of these unlockables is the hidden area Trance Mission. It's an endless, repeating mode where the enemies fly in very simple patterns and don't attack. It sounds boring, and it is for a few minutes. But after a few repeats of all the enemy patterns, you literally begin to fall into a trance. You zone out. You play without thinking. Your eyelids become heavy. Play Trance Mission for too long, and it's hard to stop...

In a leap into absolute Otherness, both the player and the usually threatening enemies abandon any intentionality and engage in a synaesthetic dance in a space beyond. In experimenting with the boundary between games and art, Rez offers
an enclave for the experience of play as “to-and-fro movement without aim” (see Gadamer in chapter 2, p. 17). For Adorno (2001a, 116), the “uselessness” of art is in itself already a political critique in a world defined by functional purpose (see also Geuss 1998, 302). In the context of this chapter, I propose to refine this general statement by arguing that the uselessness of this experience is only meaningful in the context of the tense computopic universe in which it is situated. This meaning is amplified not only by the general tension between experience and analysis, but also by the vocabulary of nature and evolution deployed in other areas and particularly in area 5, in which not only the sound becomes more complex, but also the landscape grows, as Figure 18 shows.

Figure 18. Emergent nature in Rez area 5.

Here, the game comes close to “Artificial Life art,” which is marked by “[a] general desire […] to capture, harness or simulate the generative and ‘emergent’ qualities of ‘nature’—of evolution, co-evolution and adaptation” (Penny 2010, 197). Against the background of these references to biological life and the hostile nature of the computer network in most areas, the Trance Mission not only disrupts our sense of purpose usually applied to everyday life. Presenting its players with a disinterested, rigid, non-responsive alien life, it also alienates them from the game itself, risking to bore them immediately with its playfulness. Contrary to this risk, Axem Rangers’ above-cited description of the experience points to the fact that this space can successfully invite the player to become part of it.
7.4 Absolute Terror and Uncanny Love

A very different kind of alienation is generated by the numerical representations of the mental and emotional condition of characters in Shinseiki Evangelion 2 (hereafter Eva2). Roughly adapting the hybridity of its source anime, the game offers a total of 11 scenarios, most of which explore perspectives not focused on in the anime, or expand on it, as well as several endings depending on the player’s actions. Most scenarios consist of multiple chapters, each of which is divided into a “combat turn” and a “free turn.” The combat turn features the fights between the huge, manned “artificial human Evangelion” (hereafter Eva) and the attacking “angels” which threaten to extinguish humanity.

Whereas the combat-turn offers a rather conventional gameplay-experience, the free turn allows the player to navigate the scenario’s protagonist in third-person perspective through the space of the futuristic stronghold city Tokyo-3. Eva2 features a variety of places familiar from the anime, such as NERV officer Katsuragi Misato’s mansion, pilot Ayanami Rei’s apartment, the school all pilots attend, a convenience store, and several rooms within the NERV headquarters. The player can explore and use these facilities in order to satisfy basic needs like food and an occasional bath, purchase various items in the convenience store, study for school or hack the computers of the military headquarter NERV in search for confidential data. More than anything, the environment is a social space, populated by human-like non-player characters (hereafter npc)—characters controlled by the computer. Interactions with and among these characters range from looking and small talk

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115 Eva2 is a PS2 adaptation of the successful anime Shinseiki Evangelion [Neon Genesis Evangelion] directed by Anno Hidaki, which aired between 1995 and 1996 in Japan. The game is produced by AlfaSystem, BANDAI and GAINAX, in collaboration with the anime’s director Anno Hideaki. According to Anno, the game allows each player “to create his or her own, individual Evangelion 2” (Funatsu 2003, my translation). By granting a large variety of choices the social interactions in the free turn, the game’s “sandbox-like” system allegedly allows the players to fulfill their desire and to set their own goal freely or alternately to abandon the notion of a specific goal overall (see Shibamura 2003, AlfaSystem 2011). A fan site by suba (2005b, my translation) describes the game as being “much more a simulation than a game. You cannot only play Shinji, but also side characters (even Aoba! [A minor “computer technician” character in the franchise; mer]). 2000 hours of play guaranteed. The speed is awful, but at the same time, it features a high degree of freedom. You can for example fight Angels in Eva, run berserk, assassinate whomever you despise, stalk or be stalked, create a harem, get cheated on, go fishing with dad, etc.”

116 Depending on the scenario’s protagonist, the role the player takes during the combat turn varies. As one of the pilots, he or she is directly responsible for piloting the Eva. In most other roles, the player is restricted to tactical support or spectatorship.

117 NERV is a paramilitary organization entrusted with the research on and the deployment of the Eva against the attacking angels.
Contrary to the initial expectation, the alien in *Eva2* is not encountered in the fights against the angels, but in the uncanny interactions with non-player characters, in which the player is confronted with a tension between the characters’ human-like appearance and their abstracted numerical character. This tension is present in many games, but in *Eva2*, it appears particularly uncanny and alienating. In order to explain the disruptive quality of these interactions, I would like to give a brief overview of their most important elements. A first of these elements is that the characters feature numerical variables, which represent their momentary emotional state, their feelings towards and their evaluation of other characters. The most important of these variables is the so-called “Absolute Terror” (hereafter A.T.) value, which, in contrast to the anime and manga\(^{118}\), is described as a kind of tension barometer by the game (game manual for *Eva2*, 6).\(^{119}\)

The A.T. is an important factor in the combat turn, where it influences the Eva’s fighting strength, but also in the free turn, where it affects the interaction with other characters. Generally speaking, the A.T. changes with the character’s well-being (hunger, thirst, sleepiness, toilet, and shower), the course and outcome of the fights, and, most importantly, the social interactions. For easier understanding, Example 7.5 presents some general interactions. Over time, it tends towards a neutral value, which itself decreases with passivity and increases if the A.T. is kept high over longer periods. In other words, in order to raise the A.T., the player has to fulfil his characters needs and participate in social life continuously. Such participation also provides opportunities to raise the npcs’ A.T. as well (see Nakajima, Kariya, and Miyazaki 2004, 26-27).

These numerical variables are directly linked to a second novum, namely the multiple-choice system called “Intelligent Material” (hereafter I.M.), which serves as the basis for the interactions with npcs (but also between them). *Neon Genesis Evangelions: The Complete Guide* (Nakajima, Kariya, and Miyazaki 2004, 188-251, my translation) lists 732 distinct I.M. commands, including anything from “look at XX” and “kiss XX” to “go to the toilet,” “hack the computer,” or “stop being a pilot.” Interaction with npcs or between them is generally conducted in an

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118 For a comparison with the manga and the anime, see Li, Nakamura and Roth (2013).
119 In guidebooks it is also referred to as an indicator for the character’s general attitude and behaviour, ranging roughly between passive and active (Nakajima, Kariya, and Miyazaki 2004, 26-27) or “something like the confidence for leading a life in society” (Katō and Tamura 2003, 30, my translation).
oscillating fashion, each character having a choice between up to four commands per turn. This choice is made by the game system based on several factors. Firstly, the distance between the characters influences the range of possible interactions. As I have visualized in Figure 19, this distance is divided into far, middle and close range, delimited against anything out of range (like very far, not in sight or busy characters).

Figure 19. Distances in *Eva2*. Adapted from the *Complete Guide* (Nakajima, Kariya, and Miyazaki 2004, 16).

The shorter the distance, the more ‘physical’ the interaction can become. Secondly, the numerous variables the characters are equipped with, such as the A.T. and npcs’ opinion of the protagonist [*jinbutsuhyōka*], which consist of the three variables friendship [*yūjō*], love [*aijō*] and affection [*shin'ai*], have a major influence on the I.M.

Another influential element is the respective characters’ bodily condition. In the case of the protagonist, unfulfilled basic needs might limit the interaction possibilities, in extreme cases lead to complete inability to do anything but eat, drink, go to the toilet, or shower. Npcs tend to more grumpy moods when they are
interrupted in fulfilling their own basic needs. Forth, the “emotional state” of the player character has an influence on the interaction possibilities. In contrast to the evaluation of the protagonist by other characters, which can be accessed from the I.M. menu, his or her own emotional state is not visible to the player and can only be guessed from earlier interactions.

Likewise, the npc responses to the player character’s actions or communication depend on their set of conditions, variables and evaluations, including all of the above, but also a short- and long-term memory of earlier encounters. The quality of the interaction is dynamically reflected in the variables. Roughly speaking, one might say that dislike of the player character or a bad emotional state of the npc lower the chance of ‘successful’ interactions—success meaning either a raise in the A.T. or a strengthening of the personal relationship with an npc. Although the general evaluation of the player character varies among the npcs and depending on the scenario selected, all npcs can be potential targets to both aims. In either case, these various factors that influence the success and progression of an interaction hint at the difficulty of choosing action and reaction, which have to be carefully weighed against the known and suspected condition of the npc, the momentary situation, and their potential reaction to certain approaches. The numerous, partially hidden variables and the computer-controlled I.M. turn the universe of 'Eva2' into a playing field for calculated, but never fully predictable social interactions.

In their numerical, calculated way, these interactions are an uncanny experience.

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120 The A.T. value influences the overall chances to win against the invading angels. Even non-pilots have direct or indirect influence on the battle. Katsuragi Misato, for example is responsible for strategic and tactical decisions. Akagi Ritsuko develops new weapon systems and other helpful technologies if her A.T. stays above a certain limit. However, fan-based discussions of the game reveal that raising the A.T. in preparation for battle is only one possible approach to the free turn. Engaging in romantic relationships with npcs is arguably an equally if not more popular aim among players (suba 2005a).

121 Notably, some factors diversify the characters with regards to their ‘numerical behaviour.’ For example, it is more difficult to influence the A.T. and other variables of older characters like Ikari Gendō and Fuyutsuki Kōzō (Nakajima, Kariya, and Miyazaki 2004, 178). The same goes for the start values of the ‘desires’ of the npcs, some of which vary (37).

122 This is a stark contrast to the anime, of which Japanese science fiction writer and feminist critic Kotani Mari (1997, 28-29) argues that the characters carefully play or enact a paternalistic family in what she calls a “family game.” In the free turn, the videogame employs central elements of dating simulation games. The free turn (more or less) abandons gender-boundaries, leaving only some difference between same-gender and cross-gender opposites in the factor that influences the npcs behaviour (Nakajima, Kariya, and Miyazaki 2004, 43). When compared to the anime, the game also serves as a parody, replacing the seemingly inescapable psychological struggle and tensions between the characters with a set of numerical values at mercy of the player.
In her analysis of Yumeno Kyūsaku's novel *Dogura magura* from 1935, Miri Nakamura (2002, 369, 377) argues that, in problematizing the question whether human beings can be reduced to “statistical beings,” Yumeno confronts the reader with a “mechanical uncanny,” or, “a mode of fear that stems from the mechanization of the human body.” The existence of such beings “threatens what we perceive to be ‘natural,’ including personal memories and personal identities as a whole. The idea of a coherent self comes under attack, as bodies become both divisible and mechanical, and as characters are duplicated and become reduced to statistical beings.”

A similar mechanical uncanny is at work in *Eva2*. Where Adam Roberts identifies the uncanny of the replicants in *Blade Runner* as a result of the combination of machine-like strength and ruthlessness and childlike innocence, the uncanny in *Eva2* may be said to result from the combination of numerical variables and emotional, affective interactions. What is more, playing *Eva2* for a while, the player learns to predict some of the tendencies in these interactions and develops a ‘feel’ for the situation and the most promising course of action. Guidebooks and websites provide hints or ‘recipes’ that are likely to lead to an increase of the A.T. or other expected outcomes, like the one I have translated in Figure 20.

| Shinji (S): Look at → Rei (R): Return look → S: Blush |
| S: Look at → R: Return look → S: Blush |
| S: Look at → R: Smile → S: Blush |
| S: Look at → R: Smile → S: Draw closer |

Figure 20. Dating tactics in *Eva2*. Source: suba (2005a, my translation).

This tension is not new in science fiction and can hardly be regarded as radical in the context of videogames, which necessarily reduce any kind of complexity to numerical, functional and winnable scenarios. However, the uncanny experience in *Eva2* is amplified beyond literary or filmic practice, because the game makes it accessible to a playful exploration during which the player experiences his or her own gradual shift towards numerical and functional emotions. Furthermore, as
opposed to most videogames, *Eva2* is particularly alienating because it defies our expectations about the numerical as a realm that can be mastered and controlled by the player. Complexity creates a kind of alien character neither fully compatible with human emotions, nor numerically transparent enough to be intelligible.\(^{123}\) Although some guiding principles for the interaction can be established, precise predictions of the outcome is impossible in most cases. This unpredictability is elevated by the third, arguably most radical novum of the game, namely the npc A.I., which I examine in the next section.

### 7.5 Unreasonable Intelligence

According to the game’s creator AlfaSystem (2003), the A.I. “Kareru3” that controls the npcs in *Eva2* is the rebuilt and enhanced successor to the AI system “Kareru2,” which was used in their earlier game *Gunparade March*. AlfaSystem describes the game system as an attempt to facilitate a non-contradictory depiction of the game world and to leave most of the responsiveness to flexible algorithms rather than to determine it by a pre-scripted scenario. In addition to the features already familiar from Kareru2, the new system is aimed to allow for “natural depiction (representation) of behaviour” \[shizen na kōdōyōshānōryoku\] by focusing on “flow” \[nagare\] rather than on “momentary depiction (representation)” \[isshun no byōsha\]. Kare-ru3 allows the npcs to move through the game world independently and pursue their own respective interests and interactions with other characters.

The *Complete Guide* (Nakajima, Kariya, and Miyazaki 2004, 34-45) reveals that the npc A.I. is a complex system in which determining the course of action is influenced by a three layered memory (short, middle, long term) and a total of 16 different desires based on this memory or on bodily needs. These factors are in turn influenced by the npcs’ other variable values (condition, mood, A.T., momentary feeling, evaluation of other characters), but also by time and place. With more information about the internal algorithms of the A.I., it might be possible to determine its logic and explain the npc actions in the game.\(^{124}\) However,

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123 It would be a worthy sub-project to examine the normative and moral underpinnings that serve as the basis for the calculation and change of the characters numerical values in games like *Eva2*.

124 Such information is, however, not available. Even the *Complete Guide* speaks mostly of possibilities and tendencies when referring to the npc interactions and their effects on each party.
in the context of this chapter, I am more interested in the disruptive experience the
encounter with autonomous npcs creates.

This effect of the A.I. can mainly be traced to the ways in which it deviates from
our expectation towards human-like, or, in the terms of the developers, natural
behaviour. Example 7.6 shows that the npcs are strangely unintelligible in their
actions and interactions, often appearing repetitive, aimless and counterintuitive.
Whether it is nightly visits to the (sleeping) player character’s home without
purpose, or the frequent instances of sitting down only to get up again repeatedly
or entering a room and leaving it again immediately—the npcs seem unimpressed
with day and night rhythms, with their own A.T. values, or with the enemy threat
in general. Frequently, the player character’s existence is plainly ignored, even if he
or she is the only one present in a given space.

These traits of the npc A.I. contribute to a profoundly uncanny, alienating
scenery, in which the protagonist is at times degraded to an observing background
actor or even treated as an obstacle in the environment. Rather than offering
human-like, ‘natural’ behaviour, Kareru3 confronts the player with something that
at least approaches the alien. As complex, non-transparent numerical beings in
human appearance, the npcs are subject to the player’s experiments, calculations
and playful engagements in a similar way in which Penny (2013, 152) describes his
robotic art Petit Mal: an Autonomous Robotic Artwork:

The primary goal of Petit Mal was to build a behaving machine that
while entirely non-anthropomorphic and nonzoomorphic, elicits play
behavior among people. Interaction is driven by curiosity and seemingly,
a desire to pretend that the thing is more clever than it is. People willingly
and quickly adjust their behavior and pacing to extract as much action
from the device as possible, motivated entirely by pleasure and curiosity.
(Interestingly, the only demographic who were unwilling to interact
were adolescents). I saw the device, technically, as a demonstration of
the viability of a reactive robotics strategy.

A similar playful approach characterizes the interaction with the npcs in Eva2.125

125 This playfulness is also described in player guides. Beyond the ‘conventional’ approaches
to the freedom of the game world suggested in the Complete Guide (Nakajima, Kariya,
and Miyazaki 2004, 164-179), which include raising or lowering the A.T. as far as possible,
enjoying school life, or aiming for a romantic relationship with a senior staff member of
NERV, such gameplay includes “not to talk to anybody/only to talk to PenPen” (a penguin
Katsuragi Misato keeps as a pet) “create a harem,” “homosexual pairing,” “how many people
can I assassinate,” “refuse to work when playing Misato,” “move in with Rei as Shinji,” etc.
Yet, at the same time the uncanny of the non-transparent numerical processes, which escape calculated dominance and are sometimes the basis for behaviour beyond reason, turn the npcs into a radical alien almost comparable to the Borg—in my opinion, the disinterested, seemingly aimless and un-emphatic movement of the npcs remind of the scenes on Borg spaceships and might even prompt a somewhat similar emotional response.

In an already alien computopic universe that, regardless of its freedom, demands for some, at least temporary intentionality of the player even in the most playful engagement, the experienced lack of any consistency or intention on the part of the npcs has a powerful, alienating effect. Surprisingly, Eva2 highlights this in a similar way as Rez. In the scenario “Another World,” Tokyo-3 is a utopic enclave. Neither NERV nor the angels exist, and the free turn lasts for as long as we choose, focusing on protagonist Shinji’s home and the school all children attend. Here, the uncanny social interaction with the alien is the only occupation, and while the state of trance might not be reached, the player is likewise invited to become part of its alien sociality.

7.6 Conclusions

In this chapter, I have analysed the disruptive potential the aesthetic experience of Otherness in the computopic offers its players in the literal shape of the alien. A rough overview of the discourse on aliens in science fiction studies helped to identify several important problems related to the notion of radical Otherness and the alien, and resulted in a general understanding of the alien as a plausible but experientially disruptive life. Against the background of several subjective indicators for such life, like the impossibility of representation, knowability, and imagination, I have identified some ways in which the computopic space might host the alien. Based on this, I have analysed several videogames for disruptive, aesthetic conflicts.

Such conflicts were shown to emerge majorly in two interrelated ways, namely the contrast between the player and the alien in action and ability, and the contradiction between regular gameplay and its abandonment, or between judgment (analysis)

(suba 2005a, my translation).

126 The complete guide recommends to use this scenario for experimenting with how to increase the A.T. most effectively (Nakajima, Kariya, and Miyazaki 2004, 143).
and enjoyment (sensual experience). In *EDF*, the alien ants were not only uncanny in their appearance and indifference, but also in tension with the player's lack of choice in the game. In *Rez*, the tension between synaesthetic experience and analytic play reached its climax in the Trance Mission, which lured the player into abandoning the game and its purpose altogether. In *Eva2*, the tension between numerical, calculated play and emotional content on the one side, and the uncanny, alienating disinterestedness of the unintelligible npcs in contrast to the intentional behaviour of the player on the other, was identified as the source of disruption.

An immediate question might be whether some of these disruptions are caused by a weakness in the software or are a result of intentional design, and if this has an impact on the player's evaluation of the experience. After all, my alienation in the above-mentioned games could simply stem from faulty design—at least the designer's claims about "natural behaviour" in *Eva2*, compared to the alienating results, may suggest such objection. Yet, I wonder if this argument does not imply that our judgment of an aesthetic experience depends entirely on our expectations. Such conclusion would suggest that we are incapable of experiencing novelty, because we can only judge our experience based on pre-defined categories. The examples above, on the contrary, show that aesthetic conflicts arise from a tension between the known and the radically Other in the experience itself, in moments where our expectations are disappointed.

To be sure, *Rez* and *Eva2* also show that alienation runs the risk of being boring. Yet, within the game world, maybe it is this boredom that prompts us to imagine and invent new tasks, and to act accordingly. What is more, the question whether a certain design is intended in the way in which it is experienced is hard to determine and I would even argue irrelevant for the immediate player experience. This does not mean that one cannot distinguish between good and bad game design. It rather means that, at times when what is perceived as 'good' game design seems to tend towards realism, aesthetic disruption may have to be found elsewhere. I hope to have contributed to such search. The question of intentionality remains important in a reversed sense. The analysis shows that some of the alienating effects in *EDF* and *Eva2* result from the unimagined quality of the computopic space and its complexity and contingency. This suggests that the more difficult problem might be if the alien and its disruptive effects can be produced with full intentionality at all.

On a more abstract level, the analysis suggests that some of the most alienating
experiences are afforded by the tension or conflict between intentional gaming and playfulness. Playing with the basic aesthetic tension between analytic and sensual engagement, Rez offered a synaesthetic synthesis by abandoning the task-structure of the game overall. In “Another World,” the player of Eva2 doesn’t find much to do. In these cases, the player could experience a kind of self-alienation specific to play. As already mentioned, Gadamer (2004, 107) argues that human play always requires a task it can be directed towards. In both examples, the player cannot make sense of the aimless npcs—unless he or she stops playing humanly all together, abandons the game goal, and becomes one of them. I doubt that this brings us closer to the computopic inhabitants. However, it achieves a kind of aesthetic autonomy that frees us from our common experiences and affords aesthetic novelty.

In this sense, both games prove Rancière’s (2008, 43) claim that autonomous aesthetic experience can be the beginning of a new humanity, of a new individual and collective form of life. This is not surprising, given that Rancière develops his understanding of aesthetic autonomy by discussing Schiller’s concept of “free play,” which he regards as a suspension of common experience (40-42). However, the extent to which videogames like Eva2 and Rez approximate ideal play is as intriguing as the way in which they do so. Both games offer aesthetic novelty or free play in their abandonment of the conventional, goal-directed game. Yet, they never abandon the link to human play completely. Their free play experience is only meaningful in the context of the overarching task structure of the games, which turns even these spaces into potential training grounds. At this risk, however, they not only present us with a space of radical Otherness but—almost in reversal of Jameson’s fear expressed in the initial quote—equip us with the skills to experience it and let us enter. In this space, the hand-eye coordination crucial in Rez is solely deployed synaesthetically, and the social skills in Eva2 are not directed towards anything but interaction.

Both in this extreme playfulness, and in the unintelligibility of the alien, these games add something to our aesthetic experience and arguably have an effect on what Rancière calls aesthetic distribution of the sensible. Rez, EDF, and Eva2 may not invent a new colour or a new kind of perception, to concur with Jameson. Given recent developments towards biometric passports and databasified administration, Eva2’s relatively concrete sense of alternative community based on numerical quantification of all humanly characteristics and interactions rather appears as a radicalization and potential critique of the status quo rather than a potential
alternative to it. However, at the same time, all three games generate novel and decisively disruptive experiences of radical Otherness. In their tension between the known and the alien, they point to a new terrain of aesthetic experience and thus a potential redistribution of the sensible.

Jameson (2007) concludes his initial inquiry of science fictional aliens with a question: “What […] if the alien body were little more than a distorted expression of Utopian possibilities? If its otherness were unknowable because it signified a radical otherness latent in human history and human praxis, rather than the not-I of a physical nature?” In both abstract and immediate conflicts, the analysed games shift our attention towards such latent utopian possibilities by expanding our sense of what is perceived and experienced as common, what can be said and done. In this sense they are aesthetic interventions in the political sphere, capable of stimulating our radical political imagination of alternatives. By confronting us with uncanny, unintelligible Others, which require a different mode of perception, communication, and judgment, the computopic space points to novel concepts of community and ‘social’ interaction, stimulating our imagination, and posing the question how a different sociality or community could look and feel.
8 Technologies of Violence

The most radical change in the human condition we can imagine would be an emigration of men from the earth to some other planet. Such an event, no longer totally impossible, would imply that man would have to live under man-made conditions, radically different from those the earth offers him. (Arendt 1998, 10)

The computopic is a rule-based space of action. In the theory section, I have already referred to the peculiar tension between videogames as programmed reifications of play with their pre-determined character on the one hand, and the potential for creative action they facilitate on the other. Despite its rigidity, the computopic space may offer creative moments at play in its repetitive, exploratory, and often unguided character, and due to the complexity of its rules. This chapter asks what potentials and limitations these abstract characteristics of rules and action have for disruptive conflicts in concrete cases.

8.1 Action and Politics

Action is a central political term for many theorists and thinkers, because it is the way in which we can influence society most directly and deliberately—with Hannah Arendt, the way in which we embark on something new. While Raymond Geuss (see chapter 2, p. 31) favours a broad understanding of political action as action capable of creating a new situation, Arendt (1998, 175-176, 190-192) defines it more narrowly as characterized by novelty, “boundlessness” and “inherent unpredictability” and based on human equality in plurality. She distinguishes this sharply from behaviour as the dominant mode of human relationship in modernity, conditioned by bureaucracy and the dominance of the standardizing, equalizing “society” and its conformism. The victory of the conforming social over the pluralist political means that

men have become entirely private, that is, they have been deprived of seeing and hearing others, of being seen and being heard by them. They are all imprisoned in the subjectivity of their own singular experience, which does not cease to be singular if the same experience is multiplied innumerable times. The end of the common world has come when it is
seen only under one aspect and is permitted to present itself in only one perspective. (58)

Equally threatening to political action is the dominance of bureaucracy and a pseudo-science or computerized, calculated predictions of the future in the political landscape (Arendt 1970, 6-7, 29-30).

In a fully developed bureaucracy there is nobody left with whom one can argue, to whom one can present grievances, on whom the pressures of power can be exerted. Bureaucracy is the form of government in which everybody is deprived of political freedom, of the power to act; for the rule of Nobody is not no-rule, and where all are equally powerless we have a tyranny without a tyrant. (81)

Arendt (1998, 168-169) denies art a political potential on the grounds that it is always reified, dead thought turned into tangible, and a finite product rather than open-ended action. I believe Arendt’s claims about art in *The Human Condition*, in particular her argument that works of art are finite and do not reveal the author (a criteria she regards as crucial for action), to be questionable in general. However, this is not the place to deal with these fundamental questions about the potential and nature of artworks. Instead, I would like to take up her challenge specifically in the context of private (single-player) videogame (works) with their totality of rules, and examine the character of action found there. Arendt gives at least some reason to believe that even in her own account, videogames might have a potential for action when she regards theatre as “the political art par excellence,” because it is capable of imitating action (187-188). On a more abstract level, Arendt’s description of political action suggests that such action shares several characteristics with what I have referred to as ideal play.

The following sections examine the ways in which videogames might offer man-made environments for political action, to use Arendt’s terms from the introductory quote. As before, this potential is tied to the existence of disruptive conflicts, which confront us with situations in which we have to enact novelty. To examine the relation between rules and action within the computopic structure, I focus specifically on violence, which is a central theme in videogames and science fiction, and arguably the most controversial discourse in the context of political action. In preparation for the analysis, the next section introduces this controversy, relating it to the computopic space.
8.2 Dimensions of Violence

Violence is an important factor in many political theories. In his review of the various concepts of violence applied in academic writing, Vittorio Bufacchi (2005, 193) goes as far as to claim that “violence is, and has always been, the essence of politics.” Most prominently, Thomas Hobbes derives the necessity of a social contract from its dominance in the state of nature. Carl Schmitt’s (1933, 7) famous definition of the political as a distinction between friend and enemy is based on a commitment to eradicate the enemy by means of physical violence. Frantz Fanon ([1961] 2004, 2-3) argues that disorganizing society in order to decolonize it is always a violent process. “The colonized, who have made up their mind to make such an agenda into a driving force, have been prepared for violence from time immemorial” (3).

Like Fanon, many influential thinkers have regarded violence as political action because it seems to share with political action the effect of transgressing or interrupting “what otherwise would have proceeded automatically and therefore predictably” (Arendt 1970, 31). For thinkers like Georges Sorel ([1908] 1976), Frantz Fanon (2004), or Jean-Paul Sartre ([1961] 2004), this turns violence into a potential factor or even a legitimate requirement for radical change. Such notions of revolutionary violence have been promoted repeatedly as a promising or even the only possible answer to structural, systematic, or individual violence. Homi K. Bhabha (2004, ix-x) points out that Fanon’s insistence on national consciousness and homogeneity as necessary elements for the revolution of ‘the people’ is highly problematic in its denial of difference and cultural diversity. At the same time, he recognizes the influence Fanon’s ideas had, not only on movements like the Black Panthers, the IRA, but also in U.S. attempts to understand the enemy after the horrible events of September 11, 2001.

Bhabha emphasizes Fanon’s insistence on the “psycho-affective” dimension of violence, a realm which for him is “neither subjective nor objective, but a place of social and psychic mediation,” and which involves “the body, dreams, psychic inversion and displacements, phantasmatic political identifications” all alike (xix). A psycho-affective relation or response has the semblance of universality and timelessness because it involves the emotions, the imagination or psychic life, but it is only ever mobilized into social meaning and

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127 See also John L. Stanley’s (1976) introduction to From Georges Sorel.

128 Fanon (2004, 10) believes that “[d]ecolonization unifies this world by a radical decision to remove its heterogeneity, by unifying it on the grounds of nation and sometimes race.”
historical effect through an embodied and embedded action, an engagement with (or resistance to) a given reality, or a performance of agency in the present tense.” (xix)

The term psycho-affective refers to Fanon’s (2004) framing of violence as a way of psychological and emotional resistance. In order to cope with being “dehumanized” and “reduced to the state of an animal” by the colonizer (7), the colonized dream “muscular dreams, dreams of action, dreams of aggressive vitality” to free themselves at least during the night (15). For Fanon the naked violence of colonialism “only gives in when confronted with greater violence” (23).

In contrast, Hannah Arendt rejects any kind of violence.129 She contrasts violence, understood as instrumentally enhanced natural strength, with properly political power, understood as the ability to act in concert (Arendt 1970, 44-46). In The Human Condition, Arendt (1998, 200) claims that “[p]ower is what keeps the public realm, the political space of appearance between acting and speaking men, in existence.” Violence, in her understanding, can destroy power but never become a substitute for it (202). Ultimately, it results in impotence (Arendt 1970, 53-54).

In his Foreword to the 2004 English edition of Fanon’s The Wretched of the Earth, Bhabha (2004, xxxvi) summarizes some of the existing positions and points out the complexity of the discourse:

For Arendt, Fanon’s violence leads to the death of politics; for Sartre, it draws the fiery, first breath of human freedom. I propose a different reading. Fanonian violence, in my view, is part of a struggle for psycho-affective survival and a search for human agency in the midst of the agony of oppression. It does not offer a clear choice between life and death or slavery and freedom, because it confronts the colonial condition of life-in-death.

It is not the aim of this chapter to rewrite this discourse or to aim for a synthesis of these opposing views and multiple dimensions pointed to here. Yet, in order to position violent action in the computopic space, it seems helpful to sketch some of the central characteristics and dimensions of violence.

Bufacchi (2005, 194) begins his review of violence with the observation that the etymologically correct meaning of violence, namely “passionate and uncontrolled force” is often combined with that of “violation” or infringement, “because acts

129 Bhabha (2004, xxi) points out that Arendt’s (1970) rejection of violence was a direct response to Fanon’s The Wretched of the Earth and Sartre’s pro-violent preface to it.
Part III  Analysis

of excessive force frequently result in the violation of norms, rights or rules.”
Consecutively, he identifies these two dimensions in literature, most of which
either defends a narrow definition of violence as force, or a broad definition of
violence as violation. In his discussion, Bufacchi points out that the narrow
definition ignores important aspects such as structural and institutional violence,
while the broad definition tends to be too inclusive to be distinct from any kind of
misery, alienation, or repression (197-199).

Although Bufacchi concludes from this that “the concept of violence remains
elusive” (199), this distinction helps to phrase some initial questions for the
analysis of the computopic space. In the context of videogames, violence is
frequently referred to in a discourse of negative psychological effects on children,
at times even linked to tragic events like the school shootings in the United States
or Europe. While this discourse, along with the research conducted in this field,
more or less exclusively focuses on the psychological effects of videogame violence
on the playing children and adolescents, this thesis aims to examine the political
significance of action and violence within the framework of the rule-based,
ideational computopic space. This does not mean that such connection between the
psychological and the structural is not important. However, given the complexity
of media effects discussions and the strong bias in much of the research done in
this field, this discussion requires more expertise than I have and more space than
I can grant it here.

This does not mean that I wish to ignore the physical and psychological
dimension of violent action within these games. This might sound contradictory,
given my emphasis on the virtual character of videogames. As spaces detached
from physical materiality, how can they feature physical violence? I myself have
expressed doubt about the possibility of videogames to express physical experiences
(see chapter 2, p. 39). Yet, their virtual character does not mean that violent acts
are not recognized as such in games, as they are recognized in film, even while
knowing that actors only play. To the extent to which violence is carried out by the
player, the situation appears even more complex, because it might carry with it an
emotional, psychological aspect, identified by Bufacchi with the terms “passionate,
uncontrolled,” and by Bhabha as “psycho-affective.” Neil Roberts (2004) examines
this dimension in his analysis of Fanon’s (and Sartre’s) understanding of violence
in more detail. He observes that for Sartre

[v]iolence is fundamentally an activity emerging from the category
of agency. Agency here refers to one’s ability to act. Beyond simply questions of acquiring control or potency, it involves a person’s ability to make decisions. The capacity for agency, therefore, represents an important dimension of freedom and freedom’s connection to anti-colonial violence. Those lacking subjectivity perform violence in order to gain agency. (143-144)

In order to grasp the significance and character of violence pointed to by Sartre, and Fanon himself, Roberts distinguishes between instrumental violence and intrinsic violence—the latter encompasses Fanon’s framing of violence (144-147). Whereas instrumental violence refers to violence as a means to an end, acts of intrinsic violence contain inherent value and operate outside the means-ends continuum (145-146). I find it difficult to evaluate either Roberts’ claim that “[f]or Fanon, violence is a necessary process for colonial subjects to achieve their own state of self-determination, decolonization, agency, and freedom in order to make this absence from colonial domination a reality” (155), or its consequences. Sartre’s (2004) preface to *The Wretched of the Earth* helps to make sense of this difficulty, because he points out that Fanon does not write for those who are not oppressed. Addressing his fellow Frenchmen, he states that Fanon’s book “often talks about you, but never to you” (xlv). However, Roberts’ distinction between instrumental and intrinsic violence does nonetheless prove helpful for the analysis of the computopic space, because it raises the question of the emotional-affective character of action and the possibility of an intrinsic meaning within the rule-based, goal-directed space of the computopic, shifting the attention to the problem of whether such action can go beyond the means-ends continuum.

In its character as a rule-dominated, virtual space, the computopic seems to threaten not only the possibility of any action in Arendt’s sense, but also the immediacy of physical and structural violence. After all, ‘it’s just a game.’ Switching off the console solves all problems and violence is never immediate, never a physical threat to the player. It would be mockery to compare voluntary gameplay with the situation of the physically, psychologically, or structurally oppressed, on the grounds of its strictly rule-bound character alone. However, this does not mean that violence in videogames cannot be significant from the perspective of political philosophy. My aim is not to argue that violent videogames are able to convey the experience of the oppressed or of violent acts in our empirical reality. On the contrary, the analysis inquires the status of action in videogames against
the background of a stifling of political action in the everyday, focusing on the pervasive and controversial theme of violence precisely because it does not allow for simplified answers. Violence, here, is not a given, but rather an element the significance and position of which have to be established and embedded anew in this novel context of the computopic space.

I would also like to point out that, in line with the remarks on emotions in videogames made earlier (see chapter 2, p. 38), I do believe that videogames feature emotional or psycho-affective experiences like tension, horror, helplessness, or joy, and can convey violence, either in player acts or by other agents, on a cognitive level. Put differently, the player does recognize violence on the screen when he or she sees it, including its virtual consequences. The fact that such action does not come with the severe consequences it would have in our empirical reality and can be repeated endlessly might be seen as an invitation to trivialize, mock, or glorify violence—as is sometimes the case in the mecha games analysed in chapter 5. However, the following analysis of Metal Gear Solid shows how games can deploy the distinct qualities of the computopic space to reconfigure and restructure the various aspects of violence in critical and reflexive ways. Doing so, videogames can contribute to a novel, stimulating perspective on political action.

8.3 Structural and Instrumental Violence

In most videogames, violence is, first and foremost, instrumental. In other words, it is a more or less glorified means to an end—often the only possible way of proceeding in the game and reaching its goal. In Lost Planet 2 (2010), the player does not ‘discover’ the planet, but ‘conquers’ it. In the popular horror-series Biohazard [Resident Evil], the player fights undead creatures infected with a highly contagious virus. Traversing barren lands and seemingly abandoned villages in Biohazard 4 [Resident Evil 4] (2005), one is suddenly confronted with an assault from all directions. But despite the seeming inferiority of the player character, who, at least in terms of quantity, stands alone against an army, victory is possible thanks to superior abilities, firepower, and healing skills. While offering the player the terrifying horror of unexpected, ruthless attacks from behind, the game nevertheless makes him or her the intruder.

In these games, meaningful obstacles are created through the difference between the player character’s abilities and the enemy. The player has to conquer
the environment, often by destroying all enemy forces. A similar difference is also central to the *Metal Gear Solid* (hereafter *MGS*) series. However, here it is deployed in a slightly different way that prompts critics to regard it as a critique of violence (Miller 2006) and a counterexample to conventional shooters. As Derek Noon and Nick Dyer-Witheford (2010, 78) observe, *MGS* “emphasizes unobserved movement, subterfuge, camouflage, evasion, trickery, and out-smarting enemies, not just shooting everything that moves.” In the first section, I would like to examine in more detail this characteristic gameplay, which the designer has dubbed “tactical espionage action.”

*MGS* presents the player with a consistent world and an ongoing narrative about great conspiracies during and after the cold war, putting him or her in control of a genetically and technologically enhanced protagonist, who has to help avert a terrorist threat to global security in a one-man, covert operation. A hybrid between shooter and adventure, the series emphasizes sneaking and invisibility. The player has to direct the protagonist through hostile terrain, evading enemy soldiers, traps, as well as the vicious nature he is surrounded by. As *Example 8.1* shows, *MGS* creates the gap between player character and enemy abilities mainly on two planes, namely sensual perception and action capabilities.

In terms of sensual perception, the player character, simply put, sees and hears more than the enemy. Part of this advantage originates from the combination of the various viewpoints the player can assume, like third person, first person, and limited birds-eye view, and his ability to use the environment as cover. The other part of

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130 *MGS* is a globally successful series of videogames developed under the direction of Kojima Hideo and released by Konami from 1998 (*Metal Gear Solid 1*, hereafter *MGS1*) onwards, with the most recent major release in 2008 (*Metal Gear Solid 4*, hereafter *MGS4*). Although the series is based on two earlier games called *Metal Gear* and *Metal Gear 2: Solid Snake*, this chapter focuses on the most important installments of the *MGS* series, namely *Metal Gear Solid* (1998, hereafter *MGS1*), *Metal Gear Solid 2: Sons of Liberty* (hereafter *MGS2*) and *Metal Gear Solid 3: Snake Eater* (hereafter *MGS3*), both played mostly in the **HD Edition** (2011), as well as *Metal Gear Solid 4: Guns of the Patriots* (2008, hereafter *MGS4*). I refer to the **HD edition of MGS2 and MGS3**, although I have also played the regular version of *MGS3*—the differences between the two versions are ignored below, in favor of clarity.

131 Naked Snake in *MGS3*, his son Solid Snake in *MGS1*, *MGS2*, and *MGS4*. *MGS2* introduces another operative called Raiden, whom the player controls through large parts of the game.

132 Whereas the visual field in third-person view is fixed in *MGS1* and *MGS2*, the player has control over it in *MGS3* and *MGS4*. The higher degree of freedom achieved here, is carefully balanced by the designer as to not make the games too easy. Whereas the enemy forces could be displayed on the map in *MGS1* and *MGS2*, this feature is not available in *MGS3*, where it is replaced by a number of temporarily available sensors, and reappears only in form of a vague threat detector in *MGS4*. The tension created in *MGS2* while the player cannot access the map and thus does not see what is behind the next corner, gives way to a widening of the playing field and the introduction of more obstacles to the visual
the superiority stems from enhancements of technological and science fictional nature, like a map on which the enemy positions can be monitored in real time (MGS1 and MGS2), several types of goggles (MGS3) and other visual enhancements (MGS4), as well as active radar and a directional microphone (MGS3). Such enhancements also include the famous card-boxes the player-character can carry and ‘put on’ when in need of disguise in warehouses and storage rooms, as well as means of impersonation and camouflage in the form of a wide range of “suits” and “face paints” in MGS3. In MGS4, the camouflage is realized science-fictionally in a body suit called “octocamo,” which blends with the environment after a few seconds of idleness. These sensual aspects are complemented with a difference in action abilities and behaviour. In general, the enemies follow pre-defined routines and are astonishingly noisy, lazy and relaxed, given the circumstances. The player-character is by far more flexible and agile, and is able to traverse the environment silently and sneakily. In addition, a considerable part of his capabilities of forceful action are silent and can be executed from a distance and without being spotted.

Generally, MGS confronts the player with a series of more or less contained areas controlled and patrolled by human and robot enemies, which have to be traversed in order to proceed. To understand the significance of stealthy movement for the gameplay, it is important to know that discovery is a painful, time-consuming and often deadly experience. Example 8.1 shows that discovery is more or less likely to result in player-character death, or in time-consuming shoot-outs and extended run-and-hide, depending on the title and the situation. The player-character is spotted when crossing an enemy’s path or line of sight, or making suspicious noises at close range. To avoid detection, the games challenge the player to move carefully, to use the environment as cover, to perceive more than the enemies, to recognize their routines, and to know when to move and when to hide. 133 Although the player has superior means and often the benefit of the doubt, the gameplay is nevertheless

field. Whereas the earlier games hide the enemies from the screen, the latter hide them from the player’s eyes.

133 Although sensitivity is not limited to visuals, but further, increasingly in the later titles, includes audio-information, the latter seems to follow parallel patterns and will thus not be focused in the analysis. This omission should not detract from the fact that the audio-elements of the game are crucial and contribute to its experience beyond mere additions. In several moments during the games the importance the designer has attached to sound becomes apparent, for example when a naked Raven sneezes due to the cold in a warehouse and thus gives away his position in MGS2, through the rumbling stomach that betrays Naked Snake in MGS3 once his food supplies run low, or through the awkward but noiseless crawling style in MGS4.
a thrilling experience, because in most cases, one can never be sure of all potential threats. In all titles of the series, conventional gameplay is characterized by an almost tactile progression through the environment based on careful observation. Putting the opposing forces on rails—more limited than those of the protagonist—the games task the player with spotting and reading enemy routines correctly and finding tactical solutions for traversing an environment full of enemy sentinels, traps, and other obstacles. In this sense, MGS may be said to offer an experience of bureaucratic tyranny and its totality of rules. The player cannot but learn to understand the system, ‘behave’ according to its norms and rules, and adjust to its dynamics.

However, at the same time, MGS is an example of the potential of what Galloway (Galloway 2006), based on a short Postscript on the Societies of Control by Gilles Deleuze134, calls “allegories of control.” He believes that “what Deleuze defines as control is key to understanding how computerized information societies function” (88). For Galloway “video games are, at their structural core, in direct synchronization with the political realities of the informatic age” (91). Such “allegories of control” signify universal standardization because they substitute ideological critique by the logic of informatics control, identified as numerical representation, modularity, automation, variability and transcoding (99-102). While pointing to the similarity between the logics of videogames and social control, he also claims that, due to this proximity, they can make transparent the otherwise hidden “boring minutiae of discipline and confinement that constitute the various apparatuses of control in contemporary societies” (89). For Galloway, games like MGS—among other exceptional works he mentions—stand out because here, “to play the game means to play the code of the game. To win means to know the system. And thus to interpret a game means to interpret its algorithm (to discover its parallel ‘allegorithm’)” (90-91). Such games epitomize “the flatness

134 In the short essay, Deleuze (1992) carves out the difference between spatially bound, disciplinary societies and free-floating, flexible societies of control. He claims that “[i]n the disciplinary societies one was always starting again (from school to the barracks, from the barracks to the factory), while in the societies of control one is never finished with anything—the corporation, the educational system, the armed services being metastable states coexisting in one and the same modulation, like a universal system of deformation” (5). “Control is short-term and of rapid rates of turnover, but also continuous and without limit, while discipline was of long duration, infinite and discontinuous” (6). As far as I understand Deleuze, in societies of control, one is free to move through space but under constant, computer-enhanced control, which registers, limits, and remembers every move.
of control allegory by unifying the act of playing the game with an immediate political experience” (103).

This rather abstract statement may be best understood in the context of the gameplay analysed here. The MGS games confront the player with a rigid system of rules that could be interpreted as similar to the bureaucratic control in contemporary societies. Equipping the player-character with a more flexible, stealthy set of abilities, it suggests that rule-based systems can be challenged covertly. As long as they are not confronted, the enemies do not turn hostile and might best be regarded as ‘requisites,’ strictly following the algorithmic rules. With the help of careful observation, their rigid and predictable routines can be turned against them. In this case, both structural and physical violence are circumvented. Against the background of Arendt’s conceptualization of action, one may say that although the player is not free, his or her limited possibilities of resisting against the structural violence of the opposing rules stems from the fact that, within this computopic world, the system and its sentinels obey the even more rigid rules of Arendt’s tyrannical Nobody.

This motive of resisting against structural violence by a standardizing social system (Arendt) or the society of control (Deleuze, Galloway) can be identified as a central concern of the designer, expressed most explicitly in MGS2 and MGS4. In MGS2, the world is under the control of a mysterious group called the “Patriots” [aikokushatachi], who have long implemented systematic, computer-based control and information censorship over society. In the final showdown, the protagonist and player-character Raven confronts the genetically manipulated Solidas, who threatens society in the attempt to free himself of the grip of these ubiquitous powers and change his genetically pre-designed fate. In MGS4, this motive is repeated. The game portraits a future world dominated by and dependent on a global war economy, sustained by a ubiquitous computer system that controls and monitors all human soldiers and their access to weapons. Private contract armies under the surveillance of the system are waging small-scale wars in many areas of the world. Controlling a rapidly aging Solid Snake, the protagonist known from MGS1, the player tries to avert his genetic brother Liquid’s revolutionary plans to take over the system, thus indirectly supporting the status quo.

This ambivalence of the player-character’s role is amplified by the conspiracy plot of the games, which keep the player in uncertainty over the meaning and status of his or her own actions in the world of MGS (although some kind of heroic
undertone is never abandoned completely). More than once, the player is directly confronted with this uncertainly and asked to reflect on it. Arguably the most direct address can be found in MGS2, as Example 8.2 shows. In the last parts of the game, the entire mission of the protagonist Raven is revealed as an orchestrated “play” [enshū] aimed at generating an “extreme situation.” The scenario is explained to be the last test-run for a new training method for the creation of super soldiers. This message has a double meaning, because its content describes the design recipe for all MGS titles before and later. If one wants to enjoy the game, one has to play the protagonist’s role to the end [yakuwari o hatasu]—an unquestioning obedience, which is commended as a major contribution to the success of the test, and which is a necessary condition for playing the game in the first place.

In this way, the designer confronts the players with their own ‘behaviour’ in a total, rule-based structure and confronts them with the fact that there is no alternative to playing, even in the face of obvious betrayal. Yet, when reflecting his lack of own will in the epilogue, Raiden, whom the designer sets up as a representation of his target audience of masculine videogame players (Noon and Dyer-Witheford 2010, 87) decides to take things in his own hands and find a better way to live than by merely obeying rules, encouraged by nobody else than Snake, the veteran soldier of MGS1, who has experienced such powerlessness reduction to an obedient tool himself.

This initial analysis shows that the technologically enhanced difference between player-character abilities and the system offers a limited potential for resistance against a rule-based, rigid system—limited, because the player-character is also part of the overarching computopic universe and bound to its rules. From a similar perspective, Burden and Gouglas (2012, no pn) argue that the game Portal can be regarded as “an algorithmic exploration of human struggle against algorithmic processes” that increasingly shape our everyday. They claim that “the procedural nature of games provides a unique opportunity to explore the increasingly procedural nature of such increasingly prevalent technology.” MGS can be regarded as a successful example of such exploration. From Arendt’s perspective, this might still amount to no more than a behavioural engagement. However, by highlighting this fact and consciously confronting the player with his or her limitation in the game and in society, the designer turns the rigidity and conformism of the

computopic space into a reflexive moment geared towards disrupting the player. The games do not stop there. The following sections show that, beyond such elements of critique, *MGS* points to a more radical perspective on action in its treatment of violence.

### 8.4 Intrinsic and Physical Violence

In most violent videogames, violence is, first and foremost, a means to win the game. The player is often confronted with an existential enemy in Carl Schmitt’s (1933, 8) sense, who negates the player’s existence and has to be eradicated because he prevents progression in the game. Thus, as Koster (2005, 68) pointedly states, “[m]ost games encourage demonizing the opponent, teaching a sort of ruthlessness that is a proven survival trait.” Among many others, this is the case in *Front Mission* or *EDF*, where the player has to occupy the arena or stage totally in order to proceed. In the *Front Mission* series, enemy pilots have to be killed even if they abandon their wanzers and do not pose a real threat any more. In conventional first-person shooters, enemies can be ignored temporarily, but remain active attackers, at all times in pursuit of the player. As argued above, *MGS* can be regarded as a partial critique of such unavoidable violence, promoting non-violent solutions during large parts of the games. However, on another level, the range of means in *MGS* is also deployed to highlight non-instrumental aspects of violence.

While promoting non-violent evasion, the thrill of the covert operations is amplified by the availability of a broad range of ways to deal with a situation. Both with regards to long-term strategy and situation-based tactics, the player can choose between evading the enemy, applying non-lethal force, or disposing of the enemy by lethal means. Depending on the game, the balance between these methods shifts. During large parts of *MGS1*, lethal force is more or less the only possibility to solve situations where sneaking is not an option, like in the end boss fights. This changes from *MGS2* onwards, where even upon enemy encounter, non-lethal force like knocking enemies out or anaesthetizing them is available to the player. As Example 8.1 shows, such action may cause suspicion upon discovery of the unconscious bodies but remains without severe consequences. In contrast, lethal force, if spotted, results in reinforcements and alert status, making it difficult to move for a painfully long period of time. During crucial parts of *MGS2*, in which the enemies are on guard and report to base frequently, lethal force (or direct
discovery) leads to immediate suspicion and if not covered up successfully, to an almost invincible reinforcement of enemies, making it even more difficult for the player to navigate through the environment. The game also rewards a non-lethal play-through with the ironic code name “pigeon” (Hamamura 2012, 249).

*MGS3* and *MGS4* most actively promote non-lethal gameplay as a difficult achievement, rewarding successful non-lethal play-through within the limits of several other restrictions not only with a special rank, but also with additional items at the end of each game. At the same time, both games make escaping the enemy in alert phases easier, due to the vastness of the environment and the relative sufficiency of ammunition and weapons. Given the time-consuming and frustrating experience of discovery, it is fair to say that the preference still is on sneaky, non-lethal solutions. However, the overall readjustments to the balance between all three possibilities puts a stronger emphasis on forceful and lethal action, more than before offering a real choice between almost equal alternatives, with advantages changing according to each particular situation.

This tendency towards an equality of means seems to reinstate violence as a central element in the gameplay. As such, it might be said to converge with conventional shooters. The forum-post quoted in footnote 137 points this out,

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136 An online discussion between Malumbrus, NeoSarinatan, and Mr_Big_Boss (2011) about “non-lethal playthrough” on the Metal Gear Solid 2 board of GameFAQs.com suggests that such strategy is at least theoretically possible, although not rewarded. In contrast to the rather limited discussions of non-lethal gameplay in *MGS1* and *MGS2*, there exist numerous forum threads and guides to non-lethal gameplay for *MGS3* and *MGS4* (see for example goldeneye86 2004, Hellicar 2008).

137 This general tendency is also pointed out in a post on the IGN forum by riesenkartooffel (2012) from May 29, 2012 (errors in the original). “I always play MGS games on a hardest available difficulty. I came into to series with MGS3, which I first played at first on easy and I must say I hated the game (I’d punch my younger-self if it would be possible. I didn’t understand anything about stealth and just blasted my way through the game (of course I skipped all cutscenes [sic] and codex sequences). Only problem was that MGS3 wasn’t designed to be a shooter, so I just found it clunky. I put the game on a hold for a while, but somehow got around to it once and decided to give it another chance. I selected Hard for a difficulty and the curve raised so high, that it literally forced me to learn the sneaking mechanics and complex controls. I also desided to pay attention to the story, since by then I had grown and was ready for more complex story. It took a while to get into the controls, but after that I found a whole different game. I just loved it so much, MGS3 stands there as my favourite game even today. But now back to the original message, I choose to play on hardest because it is what really forces you to play these games the way they were meant to be played. People complained that MGS4 could be just blasted through. Yeah, on normal maybe, try that shit on extreme.” As this post points out, there is a huge difference between normal and hard difficulties in all *MGS* games—the latter emphasize tactical skills and stealth maneuvers to a far greater extent. While I am aware of the possible difference in experience this entails, this dimension has to be granted more attention than I can give it in this experimental project. Thus, the analysis refers to my gameplay on normal difficulty.
remarking that “[p]eople complained that MGS4 could be just blasted through.” However, by offering a choice, MGS also adds meaning to violent action beyond its reduction to an instrumental level. By making violence avoidable, the series foregrounds its psychological, intrinsic aspects and the destructive physical effects violence has. In other words, the choice of means creates an awareness of the content of these means, confronting the player with the fact that any action taken is, at least in part, not only behavioural but—within the limits of the computopic—also either deliberate and intrinsic, or a result of a lack of control (skills) and power on the part of the player.

In overwhelming, confusing situations, which escape the player’s control, reverting to lethal violence and its lasting, predictable effects is a tempting option—a fact that reminds us of Arendt’s dictum that a loss of power makes us revert to violent means. However, the existence of other ways foregrounds the violent acts committed as the player’s choice. Miller (2006) supports this impression in her analysis of MGS. Observing the gradual shift in balance and the opening of the game towards more “meaningful” or “real choices” from MGS1 to MGS3, she claims that Kojima is able to communicate his critique of violence particularly well because

MGS3 managed to use the elements of player choice to set the medium of a videogame apart from, say, books and movies. In a sense, Kojima gave you a portion of the game entirely, and somewhat perversely, player-created - that is, a product of nothing more than the player’s earlier choices - and derived a meaningful message from it. […] Books and movies, as passive media, relate a message to the reader by presenting a story where the reader sees the consequences of the protagonist’s decisions and interprets from there. Videogames, as MGS3 would have us understand, can be aimed directly at the player.

Such reflexivity is further amplified by the fact that often, violent solutions to overwhelming situations lead to discovery and, as a result, extended periods of inactivity on the part of the player—here, the designer almost appears to mock the player for resorting to violence.138 In other cases, most notably the boss fights, non-lethal solutions are by far more difficult to achieve than lethal disposal.

In MGS4, this tension reaches a maximal level. In the boss fights against the

138 Making violence inefficient and “waiting” a central motive of a videogame in our accelerated times may, in itself, be interpreted as a strong political statement.
four members of the “Beauty and Beast unit,” the player confronts psychologically distorted, technologically enhanced, existential enemies. As Example 8.3 shows, victory over a technologically enhanced “Beast” is followed by an encounter with the respective “Beauty,” who—although defeated—still attacks Snake bare-handed. Although these scenes are also examples of the designer’s erotic fantasies present in all titles—in this case, holding up the camera at specific moments makes the Beauty pose for the player—the Beauty’s embrace remains deadly, putting the player into the position of running away from a weakened enemy who deserves pity more than hostility. Here, the use of force is instrumentally logical, but at the same time deeply disturbing.

But whereas violence as a last resort in lack of other options can still be explained instrumentally, there is also a dimension of videogame violence as entertainment in the games. At times, one just pulls the trigger instead of crawling past. Especially the later titles do not restrict violent action through game mechanics and always carry a certain admiration for weapons and war with them—the broad arsenal of deadly firearms available and the general setup of the protagonist as a one-man army attest to this. This intrinsic quality of violence is not comparable to the kind of intrinsic violence Fanon and Sartre describe. The player is never physically oppressed or abused. Likewise, violent action does not cause physical consequences outside of the computopic universe and its virtual, detached Otherness. In other words, such violence has a different quality than structural or physical violence in the everyday, and, even if executed for the sake of carnage and destruction, remains playful and entertaining. This does, however, not erase its cognitive and

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140 Despite their functional dimension, moral choices in games frequently invite commentary by scholars, critics, and gamers. Tavinor (2009, 130), for example, discusses the experience of moral choices in Bioshock from 2007, in which the player may or may not kill defenceless characters called Little Sisters. In 2009, Call of Duty: Modern Warfare 2 has generated worldwide discussions amongst gamers and in mass media, because one of the stages enables the player to kill innocent civilians as a covert operative in an airport taken control of by a terrorist group.

141 I am aware that this is a controversial phrasing in the context of a discourse on violent videogames and their effects. As mentioned before, this is not the place to engage with the complexities of this discourse and its numerous, often contradictory studies. What meaning or function this violence has in the context of the individual player’s everyday cannot be answered here. Instead, this use of “playful” is, first and foremost intended as a qualification of the action within the computopic universe, foregrounding its difference from physical or structural violence in the everyday—a difference I believe the players to be aware of to the same extent they are aware of it in other media.
psychological meaning, and it is this dual structure that the designer, once again, deploys in his ambivalent engagement with playful violence, both on the level of player choice and in various commentaries on violence.

**Example 8.3** also showed that the four Beauty and Beast bosses of *MGS4* are victims of psychological damage inflicted in war and violent conflicts. In **Example 8.4** I have compiled several instances, in which the games comment on the player’s violence. During the fight with The Sorrow in *MGS3*, the player has to lead the protagonist through a river, in which the dead bodies he or she has produced so far in the game float past, screaming in agony. Here and elsewhere, commentary on violence and violent action not only target the instrumental, necessary aspect, but also a more affective, intrinsic, playful dimension. Thereby, it emphasizes the stark contrast between the terrifying physical and psychological effects of the violence depicted and described in the game, and the player’s playful acts of violence. In *MGS2*, protagonist Raiden asks Snake if he ever enjoyed the killing. Snake’s forceful denial only amplifies the disruption on the part of the player, who is aware of the dual nature of his or her own action, at the same time playful and violent.

The designer’s creativity in addressing the player in this ambivalent, dual way is an important aspect of *MGS*. While offering a broad arsenal of deadly weapons and combat actions, the designer infuses the games with comments on violence, which are intended to disrupt the player. The protagonist of *MGS2*, Raiden, is mocked by Snake for his virtual experience of war and criticized for his seeming fascination for violence and killing—later, the player finds out that Raiden was a child soldier and a merciless killing machine in the past. Often, this commentary addresses the player directly, as in the end of *MGS1*, where Liquid accuses him of having enjoyed the killing throughout the game.

For the player, it is hard to deny this, since violence in *MGS* is, to a great extent, frivolous entertainment. This may be said for most videogames. However, most games do not discuss this status actively or locate this discussion entirely on the instrumental level, like I have shown in the case of *front mission 3*, where violence is justified by the situation and the need to proceed in the game (see chapter 5, p. 84). When combined with the variety of means available in *MGS*, the critical comments on violence in these games gain a disruptive force, confronting the player with the ambivalence of his and her actions. It is important to understand

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that the games nonetheless allow such violence and risk that their commentary is ignored. However, this might be the only way to turn playful violence into an element of a disruptive conflict.

Although far from offering simple answers to the problem of violence, *MGS* illustrates the physical and psychological effects of violence and questions it. This is possible because the series deploys technological enhancements to create a broad range of action possibilities beyond instrumental violence, where most games merely enhance the player’s capacity to violent acts and unquestioned carnage. This level of reflexivity is significant because it opens a perspective on violence not limited to its instrumental character, but at the same time neither idealizing nor rejecting its intrinsic dimension. Where Arendt largely ignores this intrinsic dimension of violence in her focus on its “instrumental” aspect (see Roberts 2004, 145), *MGS* makes it a central focus of critique. Importantly, this critique depends on the possibility of playful violence and can, in this sense, only be explored in this way because the virtual and voluntary computopic space offers the active experience of violence without consequences in our empirical reality. Yet, like the treatment of instrumental violence analysed in the last section, it remains on the level of critical reflection. In the following section I examine the ways in *MGS* goes beyond such critique, potentially prompting the player to novel action.

### 8.5 Violent Action

In several moments during the games, the difference between systematic and player-character abilities is turned upside down both sensually and with respect to action. For example, the fights in *MGS3* are characterized by a seeming reversal of ability—while the player can rely on the invisibility, the long-range sensorium of the player-character, and his sophisticated close combat techniques, opponents like The Fear, The End, or The Boss are hard to beat precisely because they appear superior in these categories. Sensually, the player is deprived of his or her usual advantage over the enemy, confronted with (seemingly) invisible enemies who surpass his or her senses. The tension between seeing and being seen is most effectively reversed in the last fight against The Boss, where the usual “crawling” causes complete blindness, as the fight commences in a field of flowers.

In other instances, endless repetition prompts the player to question the possibility to proceed in the game. For example, in *MGS1*, the protagonist is
captured and repeatedly tortured by Ocelot, not certain how and when to escape this threat, which is repeated until the player cannot keep up with the increasing speed of button-mashing required to survive the torture any more. In *MGS2*, boss fights with opponents like the RAYs, or a painfully long period of time during which the (naked) player is seemingly trapped in a room with all doors locked, cause anxiety and extreme insecurity, because these situations lack a (conceivable) end. While most of the above-mentioned situations maintain a link with the knowledge and skills obtained in regular gameplay, the games also manage to enter an uncontrollable sphere beyond common sense in other instances, as *Example 8.5* shows. The fight against The Sorrow can only be won by accessing the items menu after the protagonist’s death, and reviving him with the “revival pill.” Against Psycho-Mantis in *MGS1*, who directly reacts to controller input, only switching controller ports has an effect, and the victory over his reincarnation in *MGS4* likewise depends on methods that are far from self-explicatory.

As the example shows, the fight against Psycho-Mantis also contains some of the most significant demonstrations of sensual deprivation in the series. Mantis is not only invisible and steals the players eyes (activating first person mode allows the player to experience the perspective of Psycho Mantis, which becomes the only way to spot the enemy in the second half of the fight), but also has the ability to generate what at first glance looks like the black “video” screen familiar to videogame players in the 1990s.143 *MGS2* offers several additional visual exceptions, in which the designer demonstrates his dominance over the game world and its rules. During an action-intense sequence towards the end of the game, the screen is suddenly scaled-down in a fashion familiar from moments of “game over,” accompanied by the respective sound. For an instance, this event may successfully trick the player into believing that the protagonist has died from enemy fire. However, a closer look reveals that the usual “Mission Failed” statement reads “Fission Mailed,” and that Raiden is still alive, now only visible in miniature but nonetheless controlled by the player. Noon and Dyer-Witheford (2010, 87) regard this example as an instance of Brechtian “estrangement” and a break through the fourth wall that furthers self-reflexivity. However, one can also regard these moments as demonstrations of the

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143 This screen appeared when a gaming console or other peripheral were switched off or had lost the signal from the console, which was usually attached to the video-in port of the television screen. In *MGS1*, the message reads “Hideo” instead of “video.” Whereas this appears significantly different in English, the difference in Japanese is harder to spot, consisting only in the omission of two small dots (dakuten) over the first character, due to which ビデオ (video) becomesヒデオ (Hideo).
designer’s superiority over the computopic universe of MGS, which confronts the player with the fact that the rules are man-made and can change at any time.

What these examples have in common is that they confront the player with extreme situations in which common sense, knowledge, and prior experience fail. Both the overpowering enemies in the boss fights, during which the hunter becomes the prey, and the moments in which the rules seemingly change, replace the usual feeling of mastery with anxiety, psychological thrill, and pressure. Based on the work of Giorgio Agamben, I propose to understand these situations as computopic “states of exception” invoked by the designer. Agamben (2005, 50) defines the state of exception as “a space devoid of law, a zone of anomie in which all legal determinations—and above all the very distinction between public and private—are deactivated.” As such, the state of exception becomes an increasingly common political practice in modernity, which blurs the boundaries between exclusion and inclusion, outside and inside, zôê [bare life] and bios [qualified life] (Agamben 2002, 19).

The state of exception is marked by ambiguity and an undecidability, in which factum (life) and ius (norm) fade into each other (Agamben 2005, 29). This blurring has decisive effects on the character of action within its boundaries. The state of exception “defines a ‘state of the law’ in which, on the one hand, the norm is in force [vige] but is not applied (it has no ‘force’ [forza]) and, on the other hand, acts that do not have the value [valore] of law acquire its ‘force’” (38). This problem of the status of action in the state of exception is explained in more detail in the context of the iustitium, which, for Agamben, is the archetype of the state of exception.

The crucial problem connected to the suspension of the law is that of the acts committed during the iustitium, the nature of which seems to escape all legal definition. Because neither transgressive, executive, nor legislative, they seem to be situated in an absolute non-place with respect to the law. […] The idea of a force-of-law is a response to this

144 Despite his influence, Agamben remains a controversial thinker, both with regards to his theory, and with regards to his polemic writing, which polarizes at times without intrinsic necessity (Geulen 2005, 118). However, the aim of this chapter is not to add to the large existing body of works about the philosopher. Despite his problematic claims, the emphasis on ambiguity in the state of exception is useful for describing the blurring of rules and the non-centered status (Derrida, see chapter 3, p. 43) of the experience.

145 According to Agamben (2005, 41), the term literally means "stillstand" or "suspension of the law."
undefinability and this non-place. [...] Force of law that is separate from
the law, floating imperium, being in force [vigenza] without application,
and, more generally, the idea of a sort of “degree zero” of the law—all
these are fictions through which law attempts to encompass its own
absence and to appropriate the state of exception, or at least to assure
itself a relation with it. (51)146

In simple terms, the state of exception is radical because it abolishes any rules that
pre-structure action in the regular, normal situation. Here, action loses its direc-
tionality and becomes a force in the absence of any evaluative criteria or laws. For
Agamben, any attempt to describe the state of exception in relation to the law is
a fictive way in which the law and its proponents attempt to secure its superiori-
ity over the exception. The examples mentioned above show that MGS confronts
the player with such state of exception, in which known rules are abandoned and
the norm cannot be applied. While it would be too far-fetched to call the design-
er-sovereign’s control over the computopic in this specific case a fiction, it is none-
theless surprising how many structural similarities the extreme situations in MGS
described above share with Agamben’s account. They all depart from common
rules and earlier experience in some sense and create situations in which neither
acquired skills nor logical deduction guarantee success. In this, they show the ar-
bitrariness of the computopic universe and reveal the sovereign’s control over it,
conveying the impression that anything is possible within its realm. The player
has to find ways out of these exceptional situations, which sometimes proves very
difficult and physically intense. For example, depending on the player’s skills, the
sharp-shooting showdown against The End in MGS3 might bind the highly alert
player to the screen for more than one hour.

This does not mean that the computopic state of exception in MGS is divorced
from the regular rules entirely. Moreover, the player still requires considerable
skills—attained during regular gameplay—to prevail. However, even this relation
to the regular experience is reversed. For example, the chances of success in the
encounters with Solidas (MGS2) or The Boss (MGS3) are much higher if the player
ignores the reflex of keeping his or her distance to the opponent, and counters
attacks rather than carrying them out.147 Other situations, such as the fight against

146 In the English edition, the term “force-of-law” is expressed by crossing out the word law.
For convenience reasons, I have used single strike-through.

147 These situations highlight the active quality the seemingly passive gameplay (sneaking,
avoiding contact, camouflage) has: prompting the right attack from the opponent by
The Sorrow or Psycho-Mantis are less straightforward. My own attempts often oscillated between extreme frustration and liberated arbitrariness, frequently ending in laughter: where nothing is certain, anything—even the most illogical acts—may have equal chances of success.

In this sense, the states of exception function as a kind of non-place (Agamben) or a utopic enclave (see Jameson in chapter 2, p. 19) within the computopic Otherness, forcing the player to adapt to new situations, observe the opponent carefully despite the extreme pressure and intimidation, and think and experiment with the environment repeatedly and beyond conventional knowledge of the game (system)—provided he or she does not give up and seek help in walkthroughs and guidebooks. Rather frequently, this tricks the player into attempting all kinds of absurd actions, which one would normally know to be out of the question. At the cost of uncountable continues, the player is invited to abandon any sense of systematic rules and do the seemingly impossible, illogical, and irresponsible. Against the state of exception and its structural violence, repetition and death become the only valid currency, and experimental action and playful violence the only means likely to yield any effect. Here, the boundary between intrinsic playfulness and instrumental violence becomes blurred. Again, this playfulness is only possible due to the broad range of possible actions within the contingent computopic universes of MGS, which allow the player to experience multiple versions.

### 8.6 Conclusions
In this chapter, I have examined the disruptive potential of rules and action in the computopic space, focusing on the controversial dimension of violence in *Metal Gear Solid*. A brief overview of some existing currents in the discourse on violence has helped to identify some of the major dimensions of the concept and pointed to several questions that emerge with respect to the status and significance of violence in videogames. The subsequent analysis focused on several ways in which violence is deployed critically and reconfigured playfully in the MGS series.

In the first analytic section, I showed how the rigidity of systematic violence is set
up against a more flexible player, affording tactics of resistance against the system. In contrast to other games, *MGS* included and often promoted non-violent evasion based on observation and an understanding of the systematic algorithms, rather than violent, open conflict. In this, the series offers an intriguing combination of time and space in the context of my earlier emphasis on acceleration and speed. Paul Virilio (2006, 149-152) claims that the negation of space due to the development of means for instantaneous action at a distance leads to the possibility of a “direct encounter of every surface on the globe.” *MGS* instead offers a spatial visualization of the blind spots every complex system has due to its rigid rules, and proposes to use the advantage of agility and technology to identify and exploit them, often in a time-consuming fashion. Although these strategies remain behavioural, to speak with Arendt, because they rely on the rules of engagement, the designer offers a disruptive experience in those moments where he exploits this limitation in a critique of obedience in contemporary society.

In the second section, I examined the relation between instrumental and intrinsic action, arguing that the equal choice between non-violent and violent means is necessary to make the dimension of intrinsic violence available to critique. Deliberately contrasting the player’s playful, voluntary, and intentional acts of violence in the virtual computopic space of *MGS* with references to the physical and psychological terrors of war, the designer confronts the player with a disruptive conflict between his or her own actions and their meaning. This direct addressing of the intrinsic dimension of violence in action is only possible due to the virtual, voluntary character of the computopic space and the separation between the cognitive meaning of an action and its physical effects that dominates it. In this sense, the computopic space allows for a serious treatment of playful violence, prompting us to think about our own position to violence in games and outside them, beyond instrumental justifications. In the third section, I showed that *MGS* confronts the player with computopic states of exception. In these unpredictable enclaves within the games’ rule-based space, conventional rules are abandoned. This results in an exceptional space for experimental action. In lack of guiding principles, these situations blur the boundaries between intrinsic and instrumental action, turning playful violence into one possible choice among others. Importantly, this enclave is not detached from the computopic universe, but depends on it and maintains a link to it—if only in the sense that the player knows that there is a solution, that the game can be won.
Just as important, it seems to me, is the fact that this openness and variability of means not only challenges the player to experiment with the system at all times, but also generates an environment in which very different skill sets on the part of the player may be equally successful. In a strange way, then, the openness of the system that affords violent acts generates a condition of equality in diversity, regarded as crucial for political action by Arendt. As mentioned, Arendt (1998, 190-192) regards political action as novel, “boundless” and “inherently unpredictable.” Particularly the first of these categories is explicitly narrowly defined. “The new always happens against the overwhelming odds of statistical laws and their probability, which for all practical, everyday purposes amounts to certainty; the new therefore always appears in the guise of a miracle. The fact that man is capable of action means that the unexpected can be expected from him, that he is able to perform what is infinitely improbable” (Arendt 1998, 178).

The playful explorations of the state of exception in MGS do not offer such novelty, because the player cannot transgress the actions that were all along available to him or her in the computopic universe. However, if compared to the conventional gameplay, I believe these instances nevertheless stimulate novel action in the sense of creative reconfigurations and combinations of existing strategies, the outcome of which cannot be predicted. Thereby, the games manage to convey a kind of boundlessness of the system and the player. Within these limits, I argue that MGS in fact succeeds in offering a non-place, in which, just as Arendt predicts in the introductory quote of this chapter, a radically different life under man-made conditions offers what the human condition bound to our earth could not allow: playful violence as a kind of action in Arendt’s sense of the word.
9 Conclusion

Can we imagine a society or world radically different from ours? This was the question I posed at the beginning of this dissertation, and with which I turned to Japanese sf videogames. Arguing that the radical political imagination necessary today can be stimulated by disruptive conflicts, I located the theoretical potentials of videogame expression, or what I identified as the computopic space, in its contingent, partly unimagined, action-based, expressively combinatory and detached character. In order to deal with the challenges of this theoretical framing, I developed a flexible methodology, which emphasizes flexibility and repeated playful invasion as the preferable mode of engagement. Crucially, this included drawing on “non-academic” information and exploring alternative channels for presenting the results of the analysis. With the help of these additional sources and the viable video examples, which proved an important complement to the textual analysis, I showed that Japanese sf videogames can present us with disruptive conflicts that stimulate our radical political imagination.

The analysis shows that videogames can deploy their expressive means in innovative engagements with science fictional tropes like robots, time travel, the alien, or war technology and violence. Whether in the shape of the dystopic mecha-dominated futures of chapter 5, or in the more constructive engagements with time, aesthetic novelty, and political action discussed in part III, the multifarious combinations of narratives, representations, rules, and action offer rich playing fields for critical commentaries on the status quo, and confront the player with disruptive conflicts capable of stimulating radical imagination in central areas of political philosophy. I showed that Shadow of Memories is capable of disrupting our common sense of linear time, which is dominant contemporary society and capitalist economy, thus pointing towards alternative temporalities. Games like The Earth Defense Force, Rez, and Shinseiki Evangelion 2 confront us with uncanny, unintelligible aesthetic aliens and broaden our perception of what is in common, and what serves as the basis of our political community. The Metal Gear Solid games confront us with exceptional situations and offer us a virtual environment for experimenting with novel actions beyond behaviour. In all cases, the conflicts disrupt different pillars of the status quo, which shape the contemporary possibilities of political imagination and political action.

The active, contingent, and partly unimagined computopic spaces videogames
offer, show that Virilio’s initial pessimism about the loss of imagination due to the pre-defined game space referred to in the introduction is not justified. On the contrary, the examples show that, despite its pre-structured, rule-based nature, the computopic space can deploy their multifarious expressive elements dynamically to confront us with issues or problems we can experiment with. In this, they allow for playful engagements that Virilio would welcome. In the aforementioned interview with Sans, he demands of us to “[p]lay at being a critic. Deconstruct the game in order to play with it. Instead of accepting the rules, challenge and modify them. Without the freedom to critique and reconstruct, there is no truly free game: we are addicts and nothing more” (1999). Games facilitate these playfully critical engagements with their structure and content. In sum, they offer rich, non-predetermined, partly unimagined spaces for active and innovative engagements with radical political ideas and stimulate our political imagination of alternatives. In this, I believe that they can reach beyond what Arendt (1998, 168-169) calls “tangible” or “dead” works of art.

The analysis shows that the most radical and most effective moments of disruption emerge where computopic universes offer an internal tension and set up an enclave within their Otherness; one that stands in contrast to it. In the analysis of time, this was the case in the systematic negation of the already confused narrative and its goal of survival. In the analysis of alien aesthetics, it was generated in the experience of a radical negation of intention and game goals in the playful spaces of Rez and Eva2. In the discussion of violent technology, it was identified as a state of exception that negates the conventional gameplay and confronts the player with situations in which unpredictable solutions have to be found playfully. In all these cases, the computopic space revealed its potential to approach ideal play, at the same time showing and sometimes deliberately playing with the limits of this approach. None of the enclaves would be as effective as they are if they weren’t set up against a reverse current of the games.

These tensions prompt an unexpected answer to the question, whether Otherness is possible in videogames—a question I have identified as crucial problem in the theoretical exploration. Given the limits of our imagination (which is grounded in our knowledge), our perception (which is based on our senses) and our action (which requires direction), I remained sceptical about such Otherness throughout the project. Despite this sceptical attitude, the analysis shows that computopic Otherness is in fact possible, but dependent on the extent to which
games can create an experiential tension within their computopic universes. The abovementioned examples of negated narratives, aimless free play or frivolous experiments with violence in situations that escape common sense and knowledge offer such instances of radical Otherness. Strikingly, all these instances involve a distinct, somehow distorted treatment of death: in SoM and MGS, the player negates or deploys it actively, whereas in Eva2 and Rez the game world abandons the threat to life entirely. That death takes on a very different quality in videogames is hardly surprising. However, I did not expect it thus closely related to ideal play.

This relation between Otherness, play, and death is not the only promising field for future research that emerged in the course of this exploration. The limited number of games covered in the analysis calls for a broadening of the scope in terms of titles, genres, and regional constraints. Sf has proven a fruitful starting point to test the theory and methodology, and remains a rich field for plausible experiences of Otherness. Yet, given the discrepancies in genre treatment between literature and videogames, which are more readily categorized into shooters, adventures, and role-playing games, I wonder if the computopic could serve as a framework for more expansive explorations beyond genre-boundaries. In addition to broadening the scope, I hope to be able to pay more attention to the ways in which disruptive conflicts are experienced among players. Apart from a more extensive engagement with online sources, this could involve qualitative research with gamers in Europe or Japan. In the future, I hope to adapt the framework to multiplayer games and pay more attention to disruption that arises from acting in virtual communities. I believe that accepting the challenge of significant adjustments to theory and methodology, might be rewarded with an entirely different set of disruptive experiences and alternatives to the status quo.

Technically and philosophically, all these steps could be paralleled with a more intensive engagement with several of the issues the thesis raised but could not attend to. This concerns for example the role of the computer as performer in general and the idea of artificial intelligence in particular. This leads back to the earlier discussion of intentionality on the part of the designer, and the possibility and status of intentionality in contemporary media in general—particularly in times when media work and media culture is considered to be increasingly ‘playful.’ Furthermore, I wonder if Henri Bergson’s understanding of matter, action, time, and memory—four terms that appeared at several points during this thesis—might
not have more to contribute to a theory of the computopic space and videogame play than my initial brief excursus to his work could discover. However, a further engagement with Bergson might involve a more direct reference to contemporary cognitive science.

A third, slightly different field of interest emerged more clearly from the engagement with games and the perspective I adopted in this thesis. My exploration shows that games can be an expressive medium exploring, or presenting open, contingent ideas. The fact that the video examples succeed in complementing the written analysis, even if they do not succeed in conveying the gameplay experience first-hand, makes me wonder if videogames could not become a more active part of philosophical and political thought experiments, beyond what serious and persuasive games already achieve today. This thesis shows that games can offer disruptive open-ended ideational and experiential playgrounds. I believe it is time to explore them more actively as such.

In sum, I hope to have shown that academically grounded inquiries into videogame content from a political philosophy perspective are important and rewarding. Videogames are a rich medium of experience and offer vast possibilities for critical, disruptive expression worth further active exploration by designers, players, and scholars. The theoretical, methodical, and practical impulses and categories developed here can hopefully serve as a first step.
Appendix
A Excerpts of JackSpade's (2002) SoM Percentage FAQ

This FAQ is list of scenes I and some friends have found out in the game to share it with the people who want a full 100% percentage, thus they need ALL the cut-scenes from each chapter. […] I wish to give Extra Special thanks to Yunakitty for helping me check the validity of this FAQ and supporting me with it, you are great yunakitty! Please read her Character List FAQ as well! Another special thanks to Curty who helped me find some hard to get scenes. Special credits to ichmari for finding the elusive scene in chapter 7 that everyone was looking for!

[...]

From [14/08/01] to [19/08/01]
I finished the game at least 10 times.., recorded about 263 scenes or more..a lot of questions popped into play, about scenes and the fact that you can do them in different chapters..where do these scene belong? For example: You can give Sybila the kitten in 3 different chapters, start a tab in different chapters too..but they only count towards 1..hmm..Also, I'm 92% sure that all scenes in the list counts towards a 100% Total Achievement percentage but I won't be sure until I check them out with the new procedure."

[...]

[26/08/01]>7:45
My worst fear has come true!
I just finished Chapter 8 with 100%..and I have uncovered that the scenes are not tied with a fixed % number! Oh man, how can I explain this to you..I will try..
You see, before today, I thought that a particular scene was worth a fixed % number. Like seeing Eike dying for the 2nd time in Chapter 4 was worth 4%...but it is not so! You see, there are a certain number of scenes in each chapter, and everytime you do one, the percentage goes up, for example:

012 .- Talk with boy: “Will you save my grandpa?”   Worth 4%
013 .- Eike: “Sorry kid.”      Worth 3%
014 .- Talk with boy: “Are you gonna help my grandpa?”   Worth 3%
015 .- The bar on fire(Inside).       Worth 4%

If you delete the game and change a little of those scenes order like this:

012 .- Talk with boy: “Will you save my grandpa?”   Worth 4%
013 .- Eike: “Sorry kid.”      Worth 3%
014 .- Performer cut-scene: Getting the egg     Worth 3%
015 .- Meeting the dogs..again     Worth 4%
016 .- Talk with boy: “Are you gonna help my grandpa?”   Worth 4%
017 .- The bar on fire(Inside).       Worth 3%

As you can see, Scene 014 is worth 3%, no matter which scene it is. I hope someone has enough explaining skill so they can figure this out and send me a mail telling me how to explain this concept...oi... well anyway.
I won’t reformat my FAQ, but I will put up a note that the numbers show there are for my game and may vary from game to game.

*Roberto Corsaro has a different and very interesting theory about this, read onward to read his theory about scene percentages.

[...]
Logged into Gamefaq's board and saw PS2 4 life post about the idea ichmari had about the elusive scene, and it worked! Chapter 7 is at 100%! I'll submit the update soon and afterwards.

[...] Here's Roberto's Theory on scene's percentages:

"I think they are not integer values, but that there's a hidden decimal that might lead to apparent incongruence in scoring when the scenes are played in a different order ("if for instance, and this is just an example" ^_^ we have two scenes worth 3.5 point and the game approximates 0.5 to 0 *when displaying scores*, the first played would be 3 points worth and the second one would be 4 points worth).

Now, let's come to the Prologue.
When you have unlocked the Extra game, you have to play the normal game once more (by answering "am I dead" and "who's there?") to unlock a scene worth 3 point (and this should lead you to reach 100% in Total Achievement too). Then this:

- Curty -[2] - Time runs out with the stone: “You’ll have to work harder”

This only occurs when time runs out twice.
# B Excerpts from Gene’s (2002) *Rez Secrets FAQ v1.2*

3) Unlocking Secrets

There are many secrets to be unlocked over time. Most of them require that you complete a certain task. However, some of them are unlocked over time.

3.1) Completing the game

There are five areas in the basic game. Only four areas are selectable at the start. You must unlock the fifth area. After completing the first four areas, you will unlock Score Attack for each area. After completing the fifth area, you will unlock Beyond Mode (Lost Area), Beyond Mode (Direct Assault) and Score Attack Area 5.

3.2) Unlocking Secrets

Here is the list of the secrets and how to unlock them. Each one must be played in a certain mode. Play mode means the regular Play mode accessed from the main menu. Other secrets are unlocked from Score Attack and Direct Assault.

<table>
<thead>
<tr>
<th>Play Mode</th>
<th>Score Attack Mode</th>
<th>Beyond Mode</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unlock Area 2</td>
<td>Unlock Area 1</td>
<td>Unlock Direct Assault - Normal</td>
</tr>
<tr>
<td>Unlock Area 3</td>
<td>Unlock Area 2</td>
<td>Clear Area 5 (Play mode)</td>
</tr>
<tr>
<td>Unlock Area 4</td>
<td>Unlock Area 3</td>
<td>Clear Direct Assault - Normal (or once)</td>
</tr>
<tr>
<td>Unlock Area 5</td>
<td>Unlock Area 4</td>
<td>Clear Direct Assault - Ambient (or twice)</td>
</tr>
<tr>
<td></td>
<td>Unlock Area 5</td>
<td>Clear Direct Assault - Punk (or 3x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear Direct Assault - Oldschool (or 4x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear Direct Assault - Punk (or 3x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear Direct Assault - Psychedelic (or 5x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear Direct Assault - Oldschool (or 4x)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Clear Direct Assault - Psychedelic (or 5x)</td>
</tr>
<tr>
<td>Lost Area</td>
<td></td>
<td>Clear Area 5 (Play mode) or Play time over 5 hours</td>
</tr>
<tr>
<td>Trancemission</td>
<td></td>
<td>Rank 1st (Lost Area)</td>
</tr>
<tr>
<td>Boss Rush</td>
<td></td>
<td>Area 1-5 Shot down &gt; 95%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Beyond Mode Options</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Player Select</td>
<td>Unlocked with Second Form</td>
<td></td>
</tr>
<tr>
<td>Zero Form</td>
<td>Any Area Shot down 100% (Play mode) / Play time over 5 hours</td>
<td></td>
</tr>
<tr>
<td>Second Form</td>
<td>Any 2 areas Shot down 100% (Play mode) / Play time over 6 hours</td>
<td></td>
</tr>
<tr>
<td>Third Form</td>
<td>Any 3 areas Shot down 100% (Play mode) / Play time over 7 hours</td>
<td></td>
</tr>
<tr>
<td>Fourth Form</td>
<td>Any 4 areas Shot down 100% (Play mode) / Play time over 8 hours</td>
<td></td>
</tr>
<tr>
<td>Fifth Form</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Final Form        Any 5 areas Shot down 100% (Play mode) / Play time over 9 hours
Morolian Form Area 1-5 Shot down, Item capture 100% (Play mode) / Play time over
10 hours
Immortal        Clear all Direct Assault modes
Beam Type 1    Clear Score attack more than 5 times
Beam Type 2    Clear Score attack more than 10 times
Beam Type 3    Clear Score attack more than 15 times
Beam Type 4    Clear Score attack more than 20 times
Beam Type 5    Clear Score attack more than 25 times
Beam Type 6    Clear Score attack more than 30 times
Overdrive Infinity Rank 1st (Boss Rush)

Camera View
Near view       Rank 1st Area 2 (Score attack mode)
Far view        Rank 1st Area 3 (Score attack mode)
Dynamic view   Rank 1st Area 4 (Score attack mode)
First Person view Rank 1st Area 5 (Score attack mode)

C Excerpts from iamradiox’s (2008) *Rez - Complete Game Guide*

Secrets:
----------
- There are different boss fight forms. Tera, Giga and Mega (Tera being the hardest and Mega being the easiest). If you shot down more than 98% of the enemies before a boss fight on any level on any mode, you will fight the Tera form. Also, on Score Mode, that form will give you much more points. For the Giga form, you must get a little less percentage than that and even less for Mega. Sadly, I don’t know the exact percentage to get those two forms.

- On the DreamCast version, there is a line under the name Rez displayed on the VMU (Virtual Memory Unit). If you look at it while listening to any song (in the menu or in the game), it should pulse at the song’s beat.

- A screensaver fonction appears when you leave the game on the pause menu for five minutes or more.

- Here’s the text displayed during Area 5:

“A great prosperity came, as life conquered even the highest mountains...
Mass extinctions came wave after wave...
but empty niches always quickly refilled...
to once again prosper, grow, and reproduce...
Someday the next great emigration will occur...
as we leave this existence looking for another...
The journey will begin anew...
I hold within me all the memories that have passed...
Who am I...”
D List of Examples

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Samenvatting

Vertaling (translation): Esther Truijen, Erik Herber

Kun wij ons een radicaal andere wereld voorstellen? In onze tijd, die gedomineerd wordt door neoliberaal kapitalisme, lijken niet alleen levensvatbare alternatieven hiervoor te ontbreken maar ook het vermogen om ons iets voor te stellen dat hiervoor in de plaats zou kunnen komen. In dit proefschrift laat ik zien dat videospellen een bron van inspiratie en stimuli kunnen zijn om precies dat te doen: zich een totaal andere politieke wereld voorstellen dan men kent. Om dit te doen ontwikkel ik een theoretisch en methodologisch kader waarin videospellen bestudeerd worden als ruimtes waarbinnen ideeën kunnen bestaan of gecreëerd kunnen worden, en waarin ze dienen als aanjagers voor de verbeelding. Ik onderbouw mijn hypothese met een analyse van verschillende Japanse sciencefiction videospellen.

Het proefschrift is opgedeeld in drie delen. In het eerste deel zet ik het theoretische en methodologische kader voor de analyse uiteen. Ik beargumenteer dat radicale politieke verbeelding gestimuleerd kan worden door disruptive conflicts, of uitingen van Otherness die we niet direct kunnen bevatten. Ik gebruik de term “computopische ruimte” (computopic space) om een aantal structurele mogelijkheden en beperkingen van deze Otherness aan te duiden. Deze ruimte wordt bepaald door het totaal van alle regels in de software die het spel reïficeren, en wordt gecreëerd door de ontwerper, uitgevoerd door de computer en in gebruik genomen door de speler. Dit maakt de ruimte voorwaardelijk, experimenteel, gedeeltelijk onvoorspelbaar, slechts voor een deel toonbaar en open voor interpretaties. Hierdoor biedt het legio mogelijkheden om aan Otherness en conflicten uitdrukking te geven. De experimentele eigenschappen van deze ruimte erkennend, is de gebruikte methodologie gericht op een combinatie van eigen (vastgelegde) speelsessies en ervaringen van anderen, die zijn geanalyseerd tegen de achtergrond van empirische werkelijkheid, politieke theorie en politieke filosofie.
In het tweede deel stel ik een reeks samen van videospellen die ik gebruik in mijn analyse. Deze spellen bevatten allemaal sciencefiction elementen. Sciencefiction is voor mij een thema waarbij ik een onmiskenbare politieke inhoud veronderstel. Eerst bespreek ik de grote trends in deze videospellen. Vervolgens verklein ik de selectie van spellen tot een aantal op zichzelf staande titels en spellen die onderdeel zijn van series, die ik onderzoek in het derde deel van deze dissertatie. Ik richt me hier met name op temporele verstoringen in “tijdreis-spellen” als Chrono Trigger en Shadow of Memories; ervaringen van buitenaardse esthetiek in schietspellen zoals Earth Defense Forces en Rez, en politieke actie te midden van geweldstechnologieën in de Metal Gear Solid series. De opnames die ik heb gemaakt van mijn eigen spel versterken en complementeren het tekstuele narratief van mijn bevindingen en dragen zodoende bij aan de overtuigingskracht en transparantie van dit narratief.

Curriculum Vitae

Martin Erwin Roth was born in Stuttgart (Germany) on July 30th, 1983. He received his secondary school diploma (Abitur) from the Robert Bosch Gymnasium in Wendlingen (Germany) in 2003. Martin studied Japan Studies and Communication & Media Studies at Leipzig University (Germany) and Waseda University (Japan, with a DAAD scholarship) and received his diploma (Magister Artium) from Leipzig University in 2009. Since August 2010, he has been a PhD student at Leiden University (Institute for Area Studies), pursuing his PhD project on the political potentials of Japanese videogames as part of the NWO funded VICI project “Beyond Utopia” by Chris Goto-Jones. From May 2011 to April 2012, he was a research fellow at the University of Tokyo, with a scholarship from the Japan Foundation.

While working on this project, Martin designed and taught several BA courses at Leiden University College The Hague and in the Leiden University Japan Studies programme, and was an active member of the State and Society network (Leiden University Institute for Area Studies). In March 2014, he joined the editorial board of Asiascape: Digital Asia as review editor.