Disruptive Conflicts in Computopic Space
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Citation

Roth, M. E. (2014, August 27). *Disruptive Conflicts in Computopic Space*. Retrieved from https://hdl.handle.net/1887/28265

Cover Page

Universiteit Leiden

The handle http://hdl.handle.net/1887/28265 holds various files of this Leiden University dissertation

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Title: Disruptive conflicts in computopic space : Japanese sf videogames as sources of otherness and radical political imagination
Issue Date: 2014-08-27

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" (Ricoer 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.
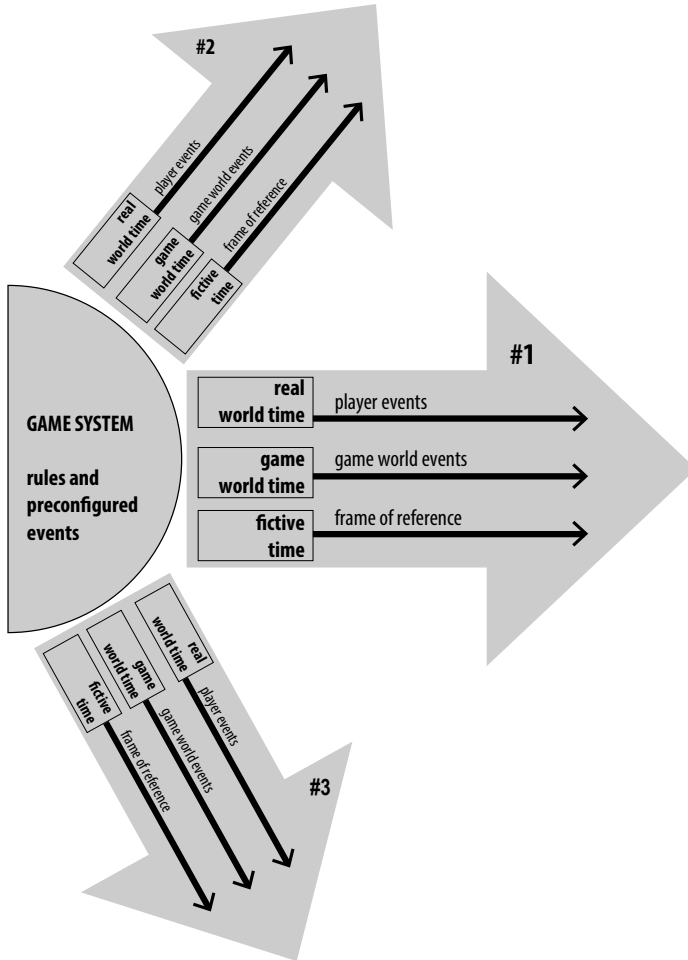

Figure 10. The temporal structure of videogames.

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 in 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.

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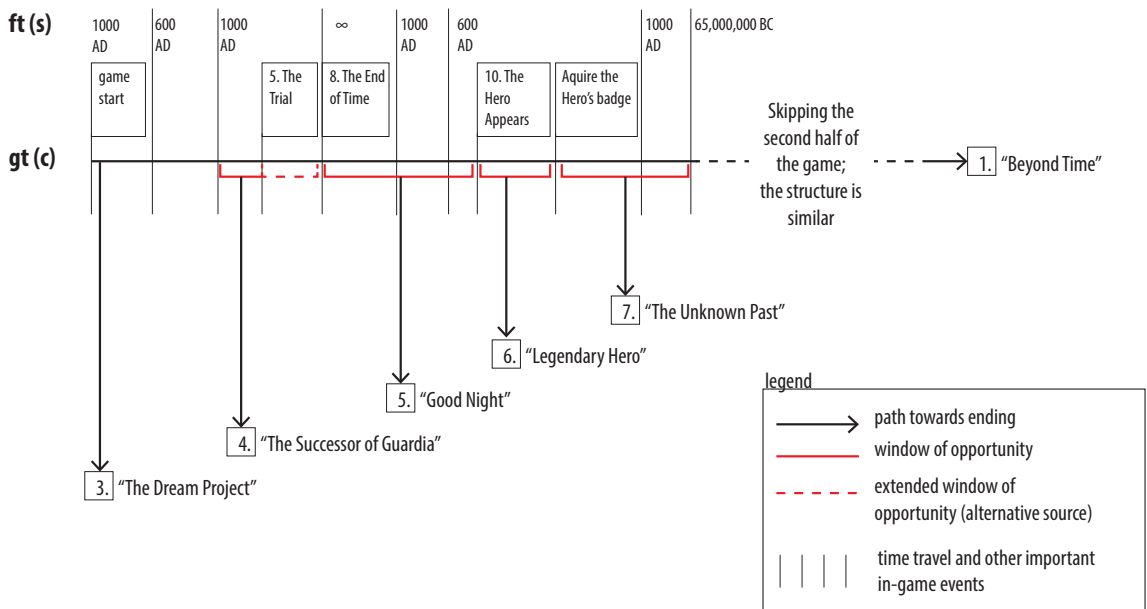
Figure 11. Multiple endings in *CT*. Compiled based on Haunter 120 (2004), McFadden (2003), nemiminijam (2009), Pringle (2009), wikia (2013e).

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.[92] 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.

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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.
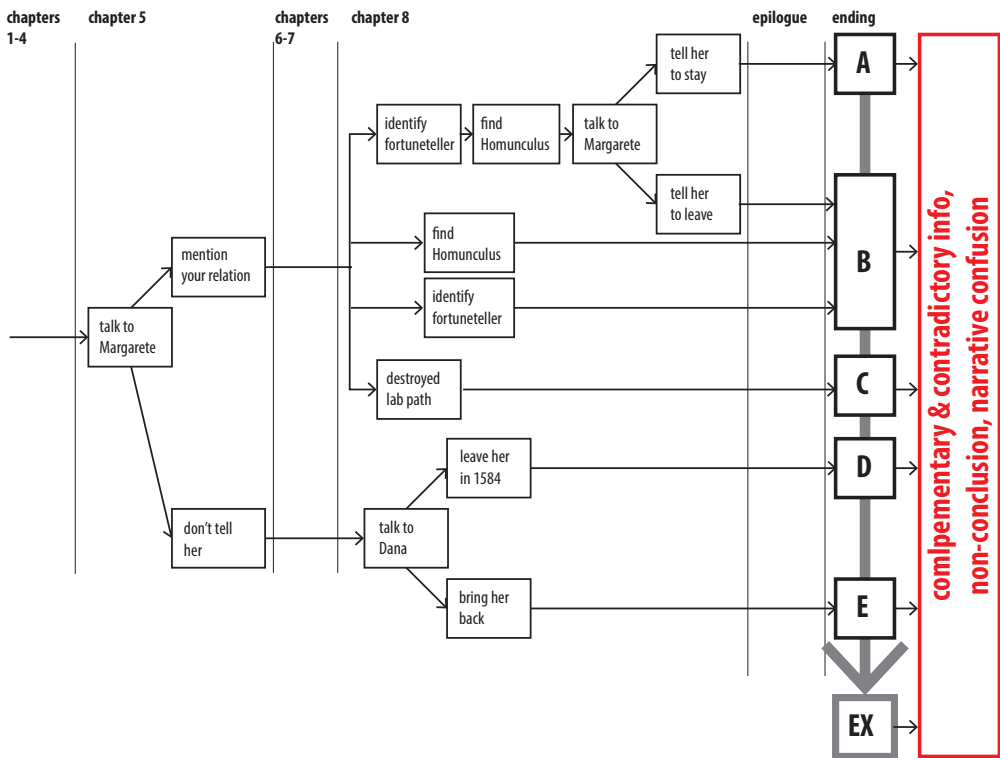

Figure 12. Multiple endings in *SoM*. Complied from Virgil (2001) and the *SoM* Wikipedia (2013r) entry.

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).

RESULT	Best Clear Time	Achievement
Prologue	0:17:56	20%
Chapter 1	0:04:51	37%
Chapter 2	0:29:38	55%
Chapter 3	0:16:53	54%
Chapter 4	0:20:19	36%
Chapter 5	0:37:29	50%
Chapter 6	0:10:56	22%

各章の最も短いクリア時間と、イベントの達成率です。
× ボタンで戻る。

Figure 13. Achievements first author attempt at *SoM*.

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.

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┌─────────────────┐
│  intro dialogue  │
│       i 1        │
└─────────────────┘
         │
┌─────────────────┐
│  assassination   │
│        1         │
└─────────────────┘
         │
┌─────────────────┐
│   Homunculus     │
│       H 1        │
└─────────────────┘
         │
┌─────────────────┐
│  game starts,    │
│ back to square   │
└─────────────────┘
         │
┌─────────────────┐
│  intro dialogue  │
│    i 1 (rep.)    │
└─────────────────┘
  use the digipad        try to run
┌───────────┐
│   avert   │    ┌─────────────────┐
│   death   │    │  dialogue Dana   │
└───────────┘    │       d 1        │
  use the digipad        try to run
┌───────────┐
│   avert   │    ┌─────────────────┐
│   death   │    │  dialogue Dana   │
└───────────┘    │       d 2        │
                 └─────────────────┘
         │
┌─────────────────┐
│  assassination   │
│        2         │
└─────────────────┘
         │
┌─────────────────┐
│   Homunculus     │
│       H 2        │
└─────────────────┘
         │
┌─────────────────┐
│  intro dialogue  │
│       i 2        │
└─────────────────┘
  use the digipad        try to run
┌───────────┐
│   avert   │    ┌─────────────────┐
│   death   │    │  dialogue Dana   │
└───────────┘    │       d 3        │
         │
┌─────────────────┐
│  assassination   │
│        3         │
└─────────────────┘
         │
┌─────────────────┐
│   Homunculus     │
│       H 3        │
└─────────────────┘
         │
┌─────────────────┐
│  intro dialogue  │
│       i 3        │
└─────────────────┘
  use the digipad        try to run
┌───────────┐
│   avert   │    ┌─────────────────┐
│   death   │    │  dialogue Dana   │
└───────────┘    │       d 4        │
         │
┌─────────────────┐
│  assassination   │
│        4         │
└─────────────────┘
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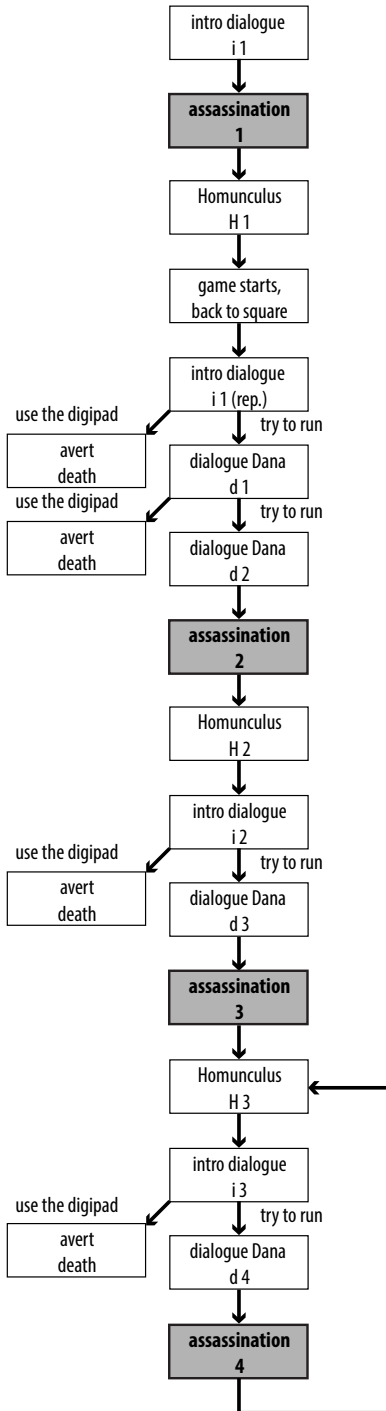
Figure 14. Multiple death scenes in chapter 2.

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

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; mer] 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?*[97] 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.

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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)
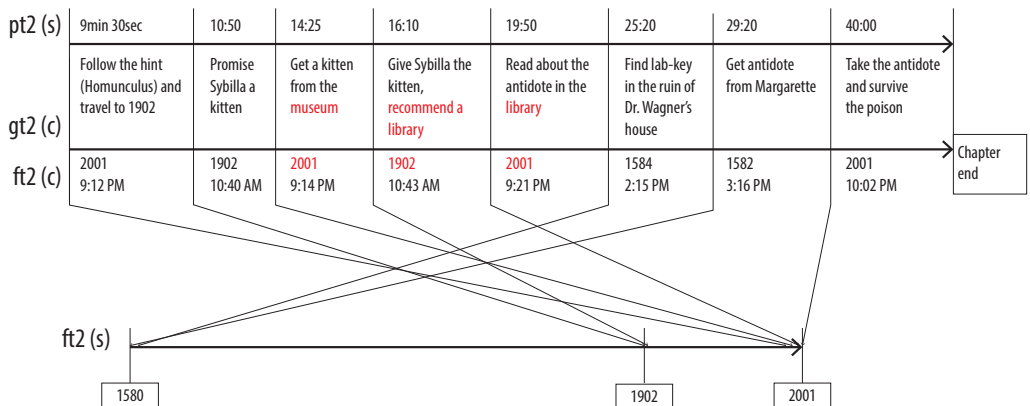

Figure 15. The temporal structure of the main events in *SoM*, chapter 5.

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").[100] 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.
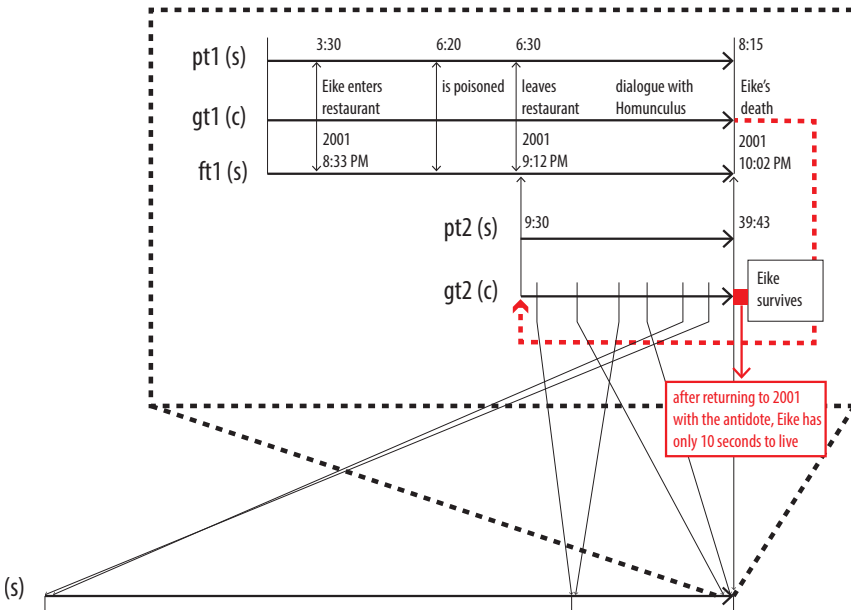

Figure 16. Temporal multiplicity in chapter 5 of SoM.

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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.
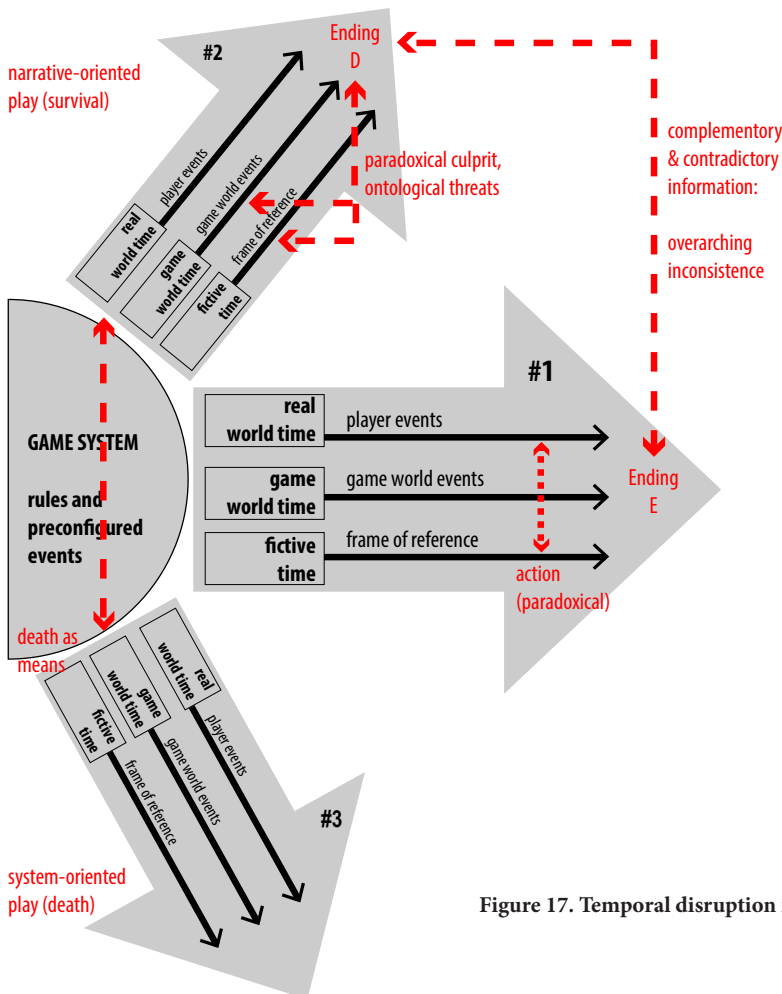

Figure 17. Temporal disruption in *SoM*.

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 priviledged 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.[101] 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,

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101   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.

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?