Did You Really Get a Mushroom?
Players' Fictional Actions in Videogame Playing

MATSUNAGA Shinji
Ritsumeikan University, Kyoto

1. The Puzzle of Fictional Action Sentences

Just as works of fiction such as novels and films, many videogames represent fictional characters, places, and events: that is, a fictional world. In this sense many videogames are a kind of fiction [1].

Nevertheless, videogames do have a feature that films and novels do not have. When describing videogame playing, we often attribute actions that seem to be performed within a fictional location to players who are at a real location. For a player *S*, for example, we can state "*S* got a mushroom," "*S* rested at an inn," "*S* built a power plant," "*S* thieved a car," and so on [2]. Such statements cannot, at least in standard cases, apply to the audience of novels or films. Call this kind of sentence that attributes apparently fictional actions to the audience of fiction *fictional action sentences* or, for short, *FA sentences*. FA sentences are ones by which we ordinarily describe our videogame playing, and so are meaningful ones.

FA sentences raise an ontological puzzle, however. Taken literally, they seem to say that a player as an agent performs her actions within a fictional place although she is a real person and therefore located in a real place. Certainly it is possible for one to stay in a certain place and cause an event in another place, or to interact with other people who are far away. But the problem we face is not that some actions are beyond a distance. The problem is that there seems to be an ontological gap between the space in which we locate performed actions as individual events [3] and the space in which we locate the agent who performs the actions [4]. The puzzle can be formulated into this:

(1) An FA sentence "a player *S* performed an action *A*" can be true,

(2) where "*S*" refers to an existent located in the real world,

(3) and "*A*" refers to an action located in a fictional world;

(4) therefore, it can be true that an existent located in the real world performs an action within a fictional world.

(5) But in the ontology we are standardly committed to, it is impossible that an existent located in the real world performs an action within a fictional world [5].

The acceptance of all (1) to (3) necessarily leads to the consequence (4), which is contrary to our common view (5). Thus, as long as we should defend the common intuition, we must deny at least one of (1) to (3) that all seem plausible. This paper's goal is to show how this puzzle will be solved.

2. Approach and Background

I take an analytic approach: I try to clarify what situations FA sentences indicate. Requirements for this approach are as follows: First, I have to interpret FA sentences as not contrary to the above formula (5) as much as possible. Second, I have to interpret them as consistent with their ordinary uses in the gaming community. Third, I have to make a rational explanation of why we are disposed to use FA sentences in spite of their apparent ontological error. To satisfy all of these requirements will be sufficient to solve the puzzle.

There may be other approaches to FA sentences. For example, one may take an approach that focuses on players' perceptions and experiences in the cases where FA sentences are used, and ask how and why peculiar perceptions (if any) arise. The perceptual theorists may tend to roughly assume what situations FA sentences indicate, and argue about our experiences within or in relation to those situations. But even where the focus is on players' perception, it is the primary task to accurately specify the situation in question. Without the specification, we will have a risk of working with something that never exists.

My interest is not just purely metaphysical but also practical. There are a lot of ordinary discourses that deal with the situations that FA sentences apply to without any specification of the meaning of FA sentences. Among such discourses, the most problematic is the ethical one that accuses videogames and players of, for example, having a preference for violent actions in fictional, or "virtual" as is often said, worlds. However, we will not be justified in judging a given playing action as guilty or not unless we clarify what the sentence that describes it actually stands for. While this paper is not intended to present any moral claim or suggestion, it may provide a conceptual framework for more substantially dealing with such ethical issues.

In the following I will consider some candidates for the answer to the puzzle. Theories I will treat are not always intended to be an analysis of FA sentences, but all of them focus on the peculiar relationship between players and fictional worlds in videogame playing, and therefore are worth considering.

3. Immersionism

A line of thought may come up easily: In a situation that an FA sentence applies to, a player has an experience as if she *immerses* herself in a fictional world, or *identifies* herself with a player character who acts in the fictional world, and the FA sentence is about her experience. Call this theory *immersionism*. Immersionism seems to be a widespread thought from researchers to developers to people who do not play videogames (Salen & Zimmerman, 2004, pp. 450–451).

According to immersionists, the formula (1) ought to be modified as follows:

(1$_i$) "*S* experienced as if she performed *A*" can be true.

This modification resolves the inconsistency between (1)–(3) and (5) since, in general, experiences can be different from facts. In other words, immersionists interpret FA sentences as subjective reports about kinds of "illusion" or "simulated experiences" (Matsumoto, 2013).

The immersionist explanation obviously fails. First, players do not always have such experiences as immersion and identification in all cases where FA sentences apply. For example, in the case where the predicate "rest at an inn" is attributed to a player who plays a title from the *Final Fantasy* series, she usually never experiences as if she were resting at an inn or as if she were a fictional character resting at an inn. This is not a special case. The same may be true of many cases where FA sentences are used. Second, in general, a person who observes a player's playing is able to properly apply an FA sentence about the playing action without any consideration for the player's subjective experience or phenomenology. This means that FA sentences are not about subjective experiences.

Thus, the immersionist theory is not the answer to the puzzle. Of course, this does not deny that a kind of experience of immersion or identification can occur in some cases. And if in fact there are such cases, it will be important to investigate them. However, as stated above, even in such cases, the primary task should be the examination of whether the case in question is really of immersion or identification, and whether the fact of immersion is not concluded only from the fact that an FA sentence applies [6].

4. Virtualism

Another assumable answer is that players' actions in videogame playing are neither real nor fictional, but virtual. This view, *virtualism*, may be as popular as immersionism. Take as an exemplar Espen Aarseth's theory (Aarseth, 2007) which explicitly defends virtualism.

A prominent case Aarseth refers to is doors in the classic first person shooter *Return to Castle Wolfenstein*, in which "most of the doors are merely textures on the walls that look like doors, but whose function is purely decorative" while "other doors actually do behave in a door-like manner; they can be opened, closed, seen through, walked through and fired through" (Aarseth, 2007, p. 41). According to Aarseth, the former "purely decorative" ones are "fictional doors," and the latter are "virtual doors." Of course, virtual doors are not real ones. To be virtual is "a mode of existence that is neither fictional nor real" (Aarseth, 2007, p. 42).

Thus, Aarseth assumes the third ontological domain, "virtual worlds," which is distinguished from both the real and fictional worlds. According to his virtualist view, the formula (3) should be modified as follows:

(3$_v$) "*A*" refers to an action located in a virtual world.

Things in virtual worlds are supposed to "actually behave" and to be capable of interacting with players. Therefore, this modification leads to the revised consequence of (4) which has no inconsistency with (5).

Virtualism has a fault in that it itself explains nothing [7]. Aarseth seems to simply define "virtual" as not real but capable of interacting. This notion of "virtual" gives us no explanation but only the circulation of the question: What is videogame interaction? Virtual one. Then what is it to be virtual? To be capable of interaction! In order for virtualism to be explanatory, it is necessary to propose some informative definition of "virtual."

One can define "virtual" as, in terms of its more original use, *being functionally equivalent* to its target or counterpart (Tavinor, 2012, p. 195). Indeed, this definition is suitable for real things functionally equivalent to any other real things, like virtual computers or virtual memories. It might seem to match with Aarseth's use given that he describes something "behaving in a door-like manner" as a virtual door. However, in the context of videogame playing, contrary to the real context, what "being functionally equivalent" means is quite unclear. Do Aarseth's "virtual doors" really have functions that real doors have? They are not functionally equivalent to real ones at least as to whether they can be opened and closed, for virtual doors can never be opened or closed *in the same sense as* real doors are capable of being opened and closed. This is more obvious as to the virtual things that do not have any real counterpart: for example, virtual goblins. How are we supposed to identify an object as functionally equivalent to a goblin? [8]

After all, to assume actions and their targets in videogaming as virtual is problematic in the first place. This brings us back to the initial question: What action is it to open a door in videogames? In short, the concept of "virtual," unless more informative specification is given, will not explain FA sentences but rather will be explained only through some other analysis of them. Thus, the virtualist theory is not the answer to the puzzle, either.

5. Fictionalism

Another candidate may claim that FA sentences are not true but *fictionally* true [9]. Call this view *fictionalism*. Fictionalists are sure to change the formula (1) as follows:

(1_F) "*S* performed *A*" can be fictionally true.

According to fictionalism, in a case where an FA sentence, for example "*S* got a mushroom," applies, there is a practice in which we are supposed to *imagine* (or, as many prefer, *make believe*) that "*S* got a mushroom" is true. More precisely, along major theories of fiction, to imagine that the sentence is true is prescribed in the situation (Walton, 1990), or the utterer intends the hearer to deliberately imagine that the sentence is true (Currie, 1990). Fictionalist theory can also avoid the inconsistency between (1)–(3) and (5) because, from this view, fictional actions attributed to players are just imagined, and therefore never really take place.

Two difficulties can be pointed out about this simple fictionalism, each of which seems, if not decisive, hard to dispel. First, even if in such cases we imagine or are prescribed to imagine a certain action in a fictional location, is it exactly the *real* player that we imagine has performed the action? When "*S* got a mushroom" or "*S* rested at an inn" properly applies, do we really imagine that not Mario but *S* got a mushroom or that not Cloud Strife but *S* stayed at an inn? This is questionable even as to what the player herself imagines, and more unlikely as to what onlookers will imagine.

Fictionalists might try to avoid this first problem by making some amendment to the formula (2): We imagine that not the real player but *the player in the fictional world* performs such and such actions. The player in the fictional world may be called the player's "fictional self" (Davies, 2009, p. 275) or "fictional proxy" (Tavinor, 2009, p. 70), and sometimes may be said to

be identified with the so-called "player character" or "avatar" who is properly a character located in the fictional world. However, we again have to answer the question of what is "fictional self" or "fictional proxy." And, as stated above, appealing to equivocal concepts like "immersion," "identification," or "virtual" is pointless.

The second problem for simple fictionalism is that it seems to overlook the peculiarity of videogames. It is true not only of videogames but also of fiction in general, whether novel, painting, or film, that an audience of a fiction imagines in appreciating it that she herself does such and such in a fictional location (Walton, 1990; see below). Therefore, simple fictionalism seems to fail to explain features of FA sentences, which are supposed to be characteristic of videogames.

Unless it resolves these problems, fictionalist theory is quite insufficient as an answer to the puzzle. But there is a more sophisticated version of fictionalism which could overcome the challenges.

6. Interactive Fiction Theory

Grant Tavinor (2005) attempts to explain the FA sentence cases, invoking Kendall Walton's make-believe theory. Tavinor draws attention to the Waltonian distinction between "work world" and "game world," each of which, according to Walton, is a kind of "fictional world."

Walton's basic conception is as follows: In children's playing games of make-believe it is explicitly or implicitly prescribed by the game's rules that, say, if there is a stump in the forest, players should use it as a *prop* and imagine that there is a bear there. In the same way, in our appreciating works of fiction, it is prescribed by the practice to appreciate the work, i.e. by the *game*'s rules, that we should use it as a prop and imagine given contents (Walton, 1990, pp. 35–43) [10]. For Walton, that a proposition is true of a fictional world is that the proposition is prescribed to be imagined in a game of make-believe. But Walton divides the "fictional world" into two: "We must be careful . . . not to confuse *the worlds of games that appreciators play with representational works* with *the worlds of the works* [italics added]" (Walton, 1990, p. 58). He briefly calls the former "game worlds" and the latter "work worlds." In short, the distinction between a game world and a work world is one between what is prescribed to be imagined in *particular* practices using a work of fiction as a prop and what is prescribed to be imagined in *all authorized* practices. For example, when a viewer, Richard, appreciates Georges Seurat's *A Sunday Afternoon on the Island of La Grande Jatte*, the proposition that Richard sees a couple strolling in a park may be true of the world of *his game* but should not be true of the worlds of *other appreciators' games*. In contrast, the proposition that a couple is strolling in a park is true not only of Richard's game but of all authorized games using the work as a prop. The former sort of propositions constitute individual game worlds and the latter the work world (Walton, 1990, pp. 58–60).

Walton's concept of "work worlds" is roughly coextensive with our "fictional worlds." Waltonian theory's point is that it posits not only public fictional truths of work worlds but also more private ones of individual game worlds that may vary according to the appreciators.

Now, Tavinor introduces the distinction into his interactive fiction theory of videogames. It

is important for Tavinor that, as seen in Richard's case, propositions true of game worlds can involve reference to the appreciators themselves. Tavinor uses this fact to explain the peculiarity of videogames. According to Tavinor, the "distinction between work-worlds and game-worlds that is so clear in traditional narrative fictions is beginning to smudge with the focus on videogames" (Tavinor, 2005, p. 34). This derives from the feature of videogames as *interactive* fiction that allows the players to "contribute to the truths of the work-world" (Tavinor, 2005, p. 33). In interactive fiction, "the distinction between work-worlds and game-worlds can become somewhat fuzzed, as the game-world effectively *projects* into the work-world because of the fictional interaction" (Tavinor, 2005, p. 33). The point is, as far as I understand, that in appreciating a work of interactive fiction including videogames, appreciators themselves can contribute to the instantiation of the work differently, and thereby influence its truths differently, too; and therefore the boundary between the authorized work worlds and individual game worlds is obscure.

From Tavinor's view, FA sentences will be construed not as those fictionally true of rigid work worlds but as those fictionally true of some blend of work worlds and game worlds. If this is true, the two difficulties for simple fictionalist theory posed in the last section may be relieved, for, first, it may define a "fictional self" as an appreciator in such a blended situation, and second, it may explain FA sentences as peculiar to interactive fiction including videogames.

However, there is a problem with Tavinor's account. As Aaron Meskin and Jon Robson (2012) show with a number of examples, even in videogames, game worlds are obviously distinguished from work worlds. For example, when Richard plays *Super Mario Brothers*, the proposition that Richard saw Mario get a mushroom is fictionally true not of the work world but only of the world of Richard's own make-believe game. In the world of the work, *the mushroom world*, there is no Richard, no character who has a large amount of the properties Richard has. This fact is independent of whether Richard can contribute to the truths of the mushroom world without being there. It is likely that while sitting in an armchair in his room he has some influence on its truths: for example, on whether Princess Toadstool shall be saved in a session. The same will be true of almost all works of videogame fiction including narrative oriented ones and sandbox genres, which Tavinor might keep in mind. The gap between game worlds and work worlds may be more distinct in cases where the player character's emotion as prescribed to be imagined deviates from the player's own emotion about the fictional situation (Meskin & Robson, 2012, pp. 212–213).

As Meskin and Robson accurately point out, Tavinor's fault is clear in terms of the analogy between videogames and performing arts such as theater (Meskin & Robson, 2012, pp. 214–215). Tavinor seems to confuse the distinction between work worlds and game worlds with the distinction between *works themselves* and *their instances*. If we think of performing arts in general, it is obvious that these two distinctions are different. In theater, while there can be work worlds of pieces of play as types, there can be work worlds of individual performances as tokens; and while there can be game worlds of individual audiences that use play works as props, there can be game worlds that use individual performances as props. In the same way, works of videogames can have their own work worlds while each individual session can also have its own work world; and in each session, the work world is still distinguished from the game world that

each player personally or unauthorizedly prescribes herself to imagine.

Thus, Tavinor's interactive fiction theory has difficult problems to resolve. As stated at the beginning, it is certain that most videogames are fiction because they represent fictional worlds: that is, they are props intended to be used to imagine that given propositions are true. It is also true that our imaginative attitude plays a significant role in our appreciation of videogames. However, it is hard to analyze FA sentences in terms of fiction, whether interactive or not.

7. Realism

The final candidate claims that the actions FA sentences refer to are neither virtual nor fictional but real. Call this view *realism*. Realists will undoubtedly change the formula (3) as follows:

(3_R) "*A*" refers to a real action.

Of course, according to the realist theory, there is no inconsistency between (1)–(3) and (5).

Some videogame theorists can be interpreted as realists. Jesper Juul (2005) characterizes videogames as consisting of the two sides of "real rules" and "fictional worlds." He says that "real rules" are real in the sense that "players *actually* [italics added] interact" with them (Juul, 2005, p. 1). For example, a statement about the rules of *Tetris*, "when you have covered an entire row, it disappears," is "a statement about the real world" and can be "true in the normal sense" (Juul, 2005, p. 167). The rules of *Tetris* are just as real as the rules of tennis. "The rules of *Tetris* are not physical but programmed; but this does not change the fact that it is a verifiable statement about the real world" (Juul, 2005, p. 167). This is true not only of purely abstract videogames such as *Tetris*, but also of videogames that are "not abstract" or "representational." Juul argues that "there is no real-world person called *Eddy Gordo*" and such a person exists only "in the *fictional world* of *Tekken 3*." Nevertheless, "in the real world, it is factually true that you can choose Eddy in *Tekken 3*, and that you can control the character of Eddy so that he attacks his opponent using capoeira moves" (Juul, 2005, pp. 167–168).

James Newman's account (Newman, 2002), which Rune Klevjer (2007, pp. 61–65) summarizes under the name "the cursor theory," can also be counted as a kind of realist theory. Newman regards player characters or avatars as "vehicles" of players' agency: that is, not as the characters who inhabit fictional worlds but as cursor-like instruments [11]. "Lara Croft is defined less by appearance than by the fact that 'she' allows the player to jump distance *x*" (Newman, 2002, n.p.).

It is certain that actions which we perform in sports and those by which we operate cursors are real ones. Therefore, if the actions that FA sentences refer to are just like such real actions, the puzzle of FA sentences will be resolved. However, these accounts are insufficient because they give no answer to the important questions: What actions are actually described by such expressions as "get a mushroom" and "attack the opponent using capoeira moves"? In what sense are they the same as actions in sports or cursor-operating actions? Why do we naturally use FA sentences to describe such real actions? Realist theories are not a satisfactory answer to our

puzzle unless they explain these issues. In what follows, both Sageng's theory and my own theory take a realist position and try to fill the insufficiency.

8. Reference Shift Theory

With interest similar to mine, John Richard Sageng (2012) attempts to analyze what actions FA sentences describe [12]. Sageng bases his argument on our intuition that we *actually* do something in videogame playing, and on our commitment to the *causal relationship* between our behaviors and the events reported: that is, our "ownership" of the in-game actions (Sageng, 2012, p. 225). We are usually committed to the view that the actions FA sentences describe are the real actions performed by players themselves. For Sageng, this is also supported by the fact that "evaluations of in-game action that pertain to movement, such as 'swift' and 'skillful' or 'precise' apply in full force to the players [*sic*] ability to execute his intentions about in-game actions" (Sageng, 2012, p. 226).

Thus, Sageng defends the realist view by observing our practice in which FA sentences are used. As stated above, any plausible realist theory has to explain, if the actions FA sentences describe are real, what kind of real actions they are, and why we are disposed to use special expressions that are literally false in order to describe some real situations. Sageng does explain both by the notion of "a *reference shift* for the terms describing the action from the represented happenings to on-screen spatio-visual happenings" (Sageng, 2012, p. 219). The core idea is this:

> . . . the semantic consequence of introducing real action with pictorial representations is that the players' intentional object will change from the fictional happenings originally cursivated to the things he now interacts with, which are simply the computer generated spatio-visual *graphical shapes* that he sees before him on the screen. Thus, normally when the player intends to perform a "shooting" or "walking" in the context of gameplay the contents of his mental states have shifted reference to graphical happenings on the screen. (Sageng, 2012, p. 228)

According to Sageng, this reference shift affects our language.

> Prior to interaction, the term "running" in a description of depiction refers to an ordinary running, but after interaction we have the option to regard the term as directly referring to computer generated shapes on the screen that have spatial similarities with runnings. . . . The problem with these new actions [whose intentional objects are graphical shapes] is that we for the most part only know their identification conditions from their historical connection with their representational role and for the most part we do not have special words for them. (Sageng, 2012, pp. 228–229)

That is, for Sageng, when one intends to do something to a fictional object *O* depicted by a pictorial representation *R*, her intentional object changes from *O* to the graphical shape in *R* that depicts *O*. And since it is only through specifying the "history" of *R*'s representational function

that we can identify the action and its object, and we have no special word for the action, we cannot help using the term that originally described *O* in order to describe the new action towards the shape on the screen. In the context where FA sentences are used, "to get a mushroom" means to do something to the graphical shape that depicted a fictional mushroom (or a fictional action of getting a mushroom). Of course, Sageng continues, most videogames involve fictional events and settings as essential, and players' desires for in-game actions are often to *pretend* to do such and such. Nevertheless, even in such a case, the player's intention is still towards the graphical environment (Sageng, 2012, p. 230).

Sageng's reference shift account seems plausible in some important respects. First, he clearly shows the theoretical motivation for the realist position in terms of the observation of our practice. Second, he reasonably explains why FA sentences are used in order to describe real actions. In particular, it is a convincing claim that the terms originally standing for represented contents are used for the individualization and description of graphical elements that represent the contents. Finally, he points out that even when players perform with pretenseful or imaginative motivations, it is not fictional but real actions that they actually intend and perform.

Sageng's theory has a crucial difficulty with regard to what real actions FA sentences apply to, however. According to Sageng, FA sentences describe players' "graphical actions," that is, the interactions between players and the on-screen spatio-visual graphical shapes. But, in standard cases where FA sentences apply, it is obvious that the actions players intend and perform cannot be reduced to graphical ones. For example, where "*S* rested at an inn" or "*S* got a mushroom" applies, *S* did not intend to do something to a certain graphical shape on the screen itself that had originally represented the fictional action of Cloud and his party's resting at an inn or of Mario's getting a mushroom.

This is evident from two facts. First, it is the case that even though in a player's action the intention for the screen, the physical input, and therefore the output, all are just the same, what FA sentence applies to the action can still be variable. For instance, when a player who does *not* understand the rules of *Super Mario Brothers* at all deliberately handles the gamepad with the intention for a certain graphical shape, and successfully brings about the graphical output that represents Mario's getting a mushroom as intended, she cannot be described as having got the mushroom since she does not understand the *significance* of getting a mushroom in the game. Second, it can be the case that two actions that are about different on-screen graphical states are still described by one and the same FA sentence. For example, you can do and be described equally in both cases where the monitor is normally on and where it is off or flickering badly.

This suggests that the actions FA sentences describe are not about the on-screen graphical shapes, but rather another thing that may be usually *comprehended through the graphics*. Of course, from the realist view, it is not any fictional thing represented by the screen. The last challenge the realist theory faces is to elucidate what this real situation is.

9. Institutionalism

My own view is that if we pay attention to what the actions in traditional games are and how they are described, then our problem concerning videogames will be resolved without any

difficulty. My argument is this: (i) In traditional or non-electronic games, such as card games, board games, sports, and so on, the rules of a game *constitute* the real actions that are possible only within the context of playing the game, which I call *gameplay actions*. (ii) It is very common that gameplay actions are specified by the *symbols* introduced only for such a purpose, and consequently are described by using the expressions containing the *names* of such symbols. (iii) In this respect, non-representational videogames have the same feature except that their symbols all are graphical. (iv) What is peculiar to representational (i.e. fictive) videogames is that they have the symbols for gameplay actions that are *individuated in accordance with their fictional contents*. (v) Because of this, the gameplay actions in videogame fictions are described by using fictive vocabularies: that is, the expressions originally for describing fictional contents. This explains what actions FA sentences describe and why FA sentences are naturally used to describe such actions. Each claim needs to be more detailed.

(i) Such actions as *checking* and *taking a knight* in chess, and *hitting a home run* and *striking out* in baseball, would all never exist if there were not the rules of chess and baseball. Of course, without any rule, you can perform the action of moving a horsehead-shaped black piece into a certain place on a white and black checkered board, or that of clouting a ball far away with a wooden club; but some rule is required for those behaviors to be *counted as* a move or a home run: that is, a gameplay action. In characterizing speech acts, John Searle takes up this feature that rules of games in general have (Searle, 1969, pp. 33–42). Rules that "create or define new form of behavior" typically seen in games, Searle calls *constitutive rules*, whose form is usually "*X* counts as *Y* in context *C*" (Searle, 1969, pp. 33–35). According to Searle, the facts and actions that in a given context constitutive rules make possible are *institutional* (Searle, 1969, pp. 50–53) [13]. It is true that institutional facts are not "brute" ones, but they are still a kind of fact. Thus, facts and actions in traditional games are no less real than those in any institutional situation like marriage or court, at least in the ontological sense [14].

(ii) In most traditional games, special symbols are introduced in order to specify what the present state is and what event or action takes place: for example, chess pieces, the grid of a chessboard, bases and lines in baseball, and so on [15]. Because of this, in order to describe a game situation, whether a state, an event, or an action, one usually uses the *name* of the symbol that specifies the situation. For example, we usually use a name like "knight" or "second base" to describe a game situation such as "taking a knight" or "stealing second base" [16].

(iii) The same applies to abstract or non-representational videogames like *Tetris*. Gameplay actions in videogames also require constitutive rules as long as they are a kind of institutional action. It is constitutive rules that enable us to count a certain state of computer hardware as a certain game situation such as *beating the game*, *losing*, *getting an extra life*, *performing combos*, and so on. In a sense, they give gameplay actions a kind of significance, which encourages us to perform or not perform the actions. What is peculiar to videogames in this respect is that the game situations (objects, states, events, actions, etc.) are represented exclusively by graphical symbols on the screen [17]. And consequently, we need to use the names of graphical symbols to describe the game situations. In *Tetris*, for example, we may usually say "the *I*-tetrominoes can clear four lines" or "I misplaced the square," where "*I*," "four lines," and "square" all are obviously the names of certain on-screen graphical shapes that specify certain

game situations.

(iv) Videogames that represent fictional worlds differ slightly: Graphical symbols that specify game situations and gameplay actions are usually individuated by their own fictional contents. For example, on-screen symbols standing for game events like *getting an extra life* or *recovering hit points* can be individuated only through their own fictional contents like *Mario getting a green mushroom* or *Cloud resting at an inn*. That is, in fictive videogames, we often need to understand what fictional content a part of the screen has in order to understand what game situation the graphical part specifies. This is true whether the fictive representations are pictorial or linguistic.

(v) Thus, players' actions in fictive videogames can be correctly described like this: A player *S* intends and performs a gameplay action, say, getting an extra life, where she (and perhaps onlookers too, if any) understands that the on-screen symbols representing the fictional content of Mario getting a green mushroom simultaneously stand for her getting an extra life. In our ordinary terminology, this action is described by using expressions containing the names of the symbols like "getting a green mushroom." As a result, the description attributing the action to S takes the form of "*S* gets a green mushroom," the very form of FA sentences.

There might be some objections against this argument. First, some might say that my account gives no explanation about players' motivations and experiences of the gameplay actions; if we pay attention to such aspects, we will need to take up as significant some fictive (or make-believe) motivations or some special experiences like immersion or player-character identification. This claim is quite plausible as such, but irrelevant to our present discussion. Motivations or experiences of gameplay matter, but they are not the matter of its ontological status.

Second, some might think that I should explain further why it must be the very fictional content rather than others that is represented by the symbol for a certain game situation. In other words, I have to explain what pairs of game situations and fictional contents are *natural* and *not arbitrary*. This is also right. In this paper, I certainly give no explanation about the relation between gameplay actions and fictional contents, and it may be true that the relation is essential for the analysis of cases where FA sentences are used. However, again, even if the investigation of the relation is crucial for understanding the nature of gameplay actions, it is not the ontological matter on which we have concentrated in this paper [18].

Third, some might suspect that my argument is true not only of videogame fictions but also of a number of non-electronic fictive games like pen and paper role-playing games or most modern German-style board games. I fully agree with this opinion. What I said is just that gameplay actions in videogames and those in non-electronic games are not different in regard to their ontological status. And I have never said that both are not different in some other respects. In fact, actions in videogames and those in traditional or non-electronic games differ in so many respects such as their temporal density (i.e. how temporally detailed individual actions are). But the differences between them in any respect that is not ontological are also irrelevant to what we have focused on.

10. Conclusion: The Answer to the Puzzle

Here is my conclusion. The actions FA sentences describe are real ones that are constituted institutionally. That is, they are ontologically the same as institutional facts. The reason why FA sentences are naturally used in order to describe such real actions in videogame fictions is that the individualization of the actions is dependent on the fictional contents which are represented by the symbols that stand for the actions; thereby we naturally use the names of the symbols in order to describe them; and the names are fictive vocabularies that originally referred to fictional situations.

Notes

[1] I roughly use the term "fiction" to refer to anything that represents a fictional world. This is far from the definition of fiction, but it will be sufficient for my present purpose. My intention for this terminology is (a) that I will pick up the feature of representing fictional worlds as shared by both videogames and other art forms like films, novels, comics, theaters, etc., and (b) that in order to avoid some confusion, I will exclude a common but problematic terminology that uses "fiction" to refer to *separation from real or ordinary life*, which is often thought to characterize play and games in general.

[2] The examples I suppose here are such well-known titles as the *Super Mario Brothers* series, the *Final Fantasy* series, the *SimCity* series, and the *Grand Theft Auto* series.

[3] I here adopt Donald Davidson's ontology of actions that analyzes an action as an event (Davidson, 2001).

[4] It may be possible for one located in a real place to interact with a fictional character (supposed to be) located in a real place such as Mickey Mouse, who is located in Tokyo Disneyland, Urayasu. Therefore, the puzzle of FA sentences focuses not on our interacting with fictional characters but on our acting and interacting *within fictional locations*. Rune Klevjer (2009) points out a similar issue, where he explains the difference between a fictional object in "fictional space" and one in "real space" in terms of the Waltonian notion of reflexivity.

[5] The proposition (5) might need explaining further. According to the Davidsonian line, "an agent performs an action *A*" is analyzed into "$\exists x \exists e(A(x, e))$" where *x* is the variable for the agent and *e* is the variable for the event of which the properties of *A* are predicated. In order for this sentence to be true, there must exist an individual that satisfies *x* and an individual that satisfies *e*. Both are concrete individuals and so must be particularly located in time and space. Therefore, if we interpret an FA sentence literally, in order for it to be true we must have an odd ontology that commits us to the possibility that both a real person and a fictional event are located in the same time-space. (5) describes our (perhaps common) refusal of this consequence.

[6] Moreover, another common difficulty seen in discourses on "immersion" or "identification" is that such terms are unclear and/or equivocal. In fact, as Gordon Calleja (2011, pp. 25–34) surveys, the term "immersion" used in game studies and game design is very ambiguous.

[7] For a similar criticism, see Sageng (2012, pp. 226–227).

[8] Grant Tavinor (2012, p. 196) attempts to defend the virtuality of fictional objects in the way "the depictions of the game allow for an interaction that corresponds to an interaction that one *might have with an actual goblin* [italics added]." This appeal to counterfactual assumptions about fictional characters gives us no solution. If there were a real goblin, it could have a function of, say, hitting or being hit by someone. However, its virtual counterpart can neither hit nor be hit in any

literal or real sense.

[9] Theories of fiction, which attempt to analyze fictional sentences that can be formulated as "it is true fictionally (or in fiction) that *p*," are varied. Here I have in mind exclusively those who define fiction in terms of imaginative propositional attitude or make-believe, such as Kendall Walton (1990) and Gregory Currie (1990). Although make-believe theories are also varied (see Friend, 2008), the differences among them hardly bring any crucial consequence here.

[10] Note that Walton's use of the term "game" is somewhat metaphorical, and his focus throughout is on fiction and representational works in general, not on games in the literal sense. The terminology is perhaps intended to highlight such aspects as *rules* prescribing imagination and appreciators' imaginative *participation* in appreciating fiction.

[11] Here Newman uses the term "vehicle" to refer not only to literal vehicles, such as cars in racing games, but also to any *medium* for players' in-game agency.

[12] Sageng uses the term "in-game action reports." Given his argument and examples, I take it as a synonym of "fictional action sentences" in my terminology.

[13] Later, Searle uses the same conception to explain the ontological status of social facts and constructs his philosophy of society (Searle, 1995; Searle, 2010).

[14] Certainly, there may be a difference between facts in games and other kinds of institutional facts in how strongly they are related to other real facts, for, as many have pointed out in the tradition of game studies, it may be true that games (or more generally play) tend to be relatively separate from our ordinary or *real* interests and life (Juul, 2005, pp. 33–36). However, the difference is the matter of the relative amount of practical *interests* or that of the *attitude* players take when playing (Suits, 2014), and not that of the ontological gap between the real and the fictional (see note 5 above).

[15] Such symbols are often called "game tokens." I prefer not to use the term "token" here because it often has some ontological implication as in the type/token dichotomy.

[16] Besides those that contain the names of symbols, most games introduce their own vocabularies for game situations. They may be quite new words for the games (e.g. "home run" or "checkmate") or somewhat metaphorical uses of existing words for real situations (e.g. "*stealing* a base" or "knights can *jump over* others"). But what matters here is only the uses of the names of symbols.

[17] To be precise, there can be not only on-screen visual symbols but also auditory and tactile ones.

[18] I have discussed in my other paper why a certain relation between game situations and fictional contents is natural and motivated in terms of the *realism in simulation* (Matsunaga, 2015; only in Japanese). Roughly speaking, if a game situation is (a) detailed enough, (b) structurally similar (i.e. homomorphic) to a fictional situation, and (c) one whose relation to the fictional situation is conventionally familiar to us, then it is a realistic simulation and has a kind of motivatedness.

References

Aarseth, E. (2007). Doors and perception: Fiction vs. simulation in games. *Intermédialités*, 9, 35–44.

Calleja, G. (2011). *In-game: From immersion to incorporation*. Cambridge, MA: MIT Press.

Currie, G. (1990). *The nature of fiction*. Cambridge: Cambridge University Press.

Davidson, D. (2001). *Essays on actions and events*. Oxford: Oxford University Press.

Davies, S. (2009). Responding emotionally to fictions. *The Journal of Aesthetics and Art Criticism*, 67(3), 269–284.

Friend, S. (2008). Imaging fact and fiction. In K. Stock & K. Thomson-Jones (Eds.), *New waves in aesthetics* (pp. 150–169). Basingstoke: Palgrave Macmillan.

Juul, J. (2005). *Half-real: Video games between real rules and fictional worlds*. Cambridge, MA: MIT Press.

Klevjer, R. (2007). *What is the avatar? Fiction and embodiment in avatar-based singleplayer computer games* (Doctoral dissertation). Bergen: University of Bergen.

Klevjer, R. (2009). Model and image: Towards a theory of computer game depiction. In J. R. Sageng (Ed.), *Proceedings of philosophy of computer games conference 2009*. Oslo. Retrieved from http://proceedings2009.gamephilosophy.org/

Matsumoto K. (2013). Supōtsu geemu no sosei: Sore wa genjitsu no nani wo mohō shite seiritsu surunoka [The composition of sports games: What they simulate and how they are comprised]. In Japanese Association for Semiotic Studies (Ed.), *Semiotopos 8* (pp. 71–87). Tokyo: Shin-yo-sha.

Matsunaga S. (2015). Kōi no shimyurēshon toshite no bideogeemu [Videogames as simulation of actions]. In Japanese Association for Semiotic Studies (Ed.), *Semiotopos 10* (pp. 184–202). Tokyo: Shin-yo-sha.

Meskin, A., & Robson, J. (2012). Fiction and fictional worlds in videogames. In J. R. Sageng, H. Fossheim, & T. M. Larsen (Eds.), *The philosophy of computer games* (pp. 201–217). Dordrecht: Springer.

Newman, J. (2002). The myth of the ergodic videogame: Some thoughts on player-character relationships in videogames. *Game Studies*, 2(1). Retrieved from http://www.gamestudies.org/0102/newman/

Sageng, J. R. (2012). In-game action. In J. R. Sageng, H. Fossheim, & T. M. Larsen (Eds.), *The philosophy of computer games* (pp. 219–232). Dordrecht: Springer.

Salen, K., & Zimmerman, E. (2004). *Rules of play: Game design fundamentals*. Cambridge, MA: MIT Press.

Searle, J. R. (1969). *Speech acts: An essay in the philosophy of language*. Cambridge: Cambridge University Press.

Searle, J. R. (1995). *The construction of social reality*. New York, NY: Free Press.

Searle, J. R. (2010). *Making the social world: The structure of human civilization*. Oxford: Oxford University Press.

Suits, B. (2014). *The grasshopper: Games, life and utopia* (3rd ed.). Peterborough, ON: Broadview Press.

Tavinor, G. (2005). Videogames and interactive fiction. *Philosophy and Literature*, 29(1), 24–40.

Tavinor, G. (2009). *The art of videogames*. Malden, MA: Wiley-Blackwell.

Tavinor, G. (2012). Videogames and fictionalism. In J. R. Sageng, H. Fossheim, & T. M. Larsen (Eds.), *The philosophy of computer games* (pp. 185–199). Dordrecht: Springer.

Walton, K. (1990). *Mimesis as make-believe: On the foundation of the representational arts*. Cambridge, MA: Harvard University Press.