Virtual death: on counting, winning, and losing lives in a video game

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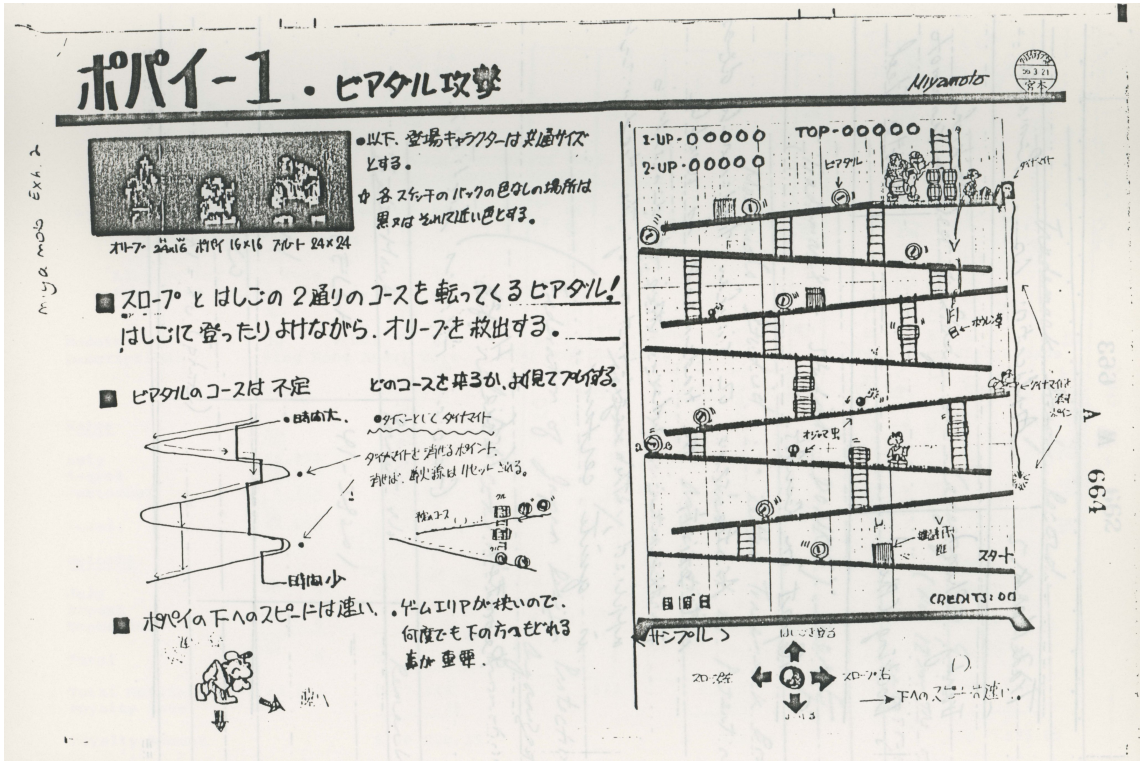
Mario's puzzle

- Have you ever wondered whether Mario *really* has multiple lives?
- This question is ambiguous, depending on whether one takes an *internal* or an *external* perspective on Mario:[1]
  - Is it fictionally true that Mario enjoys multiple lives?
    - No! because, intuitively, Mario does not repeatedly die and return to life in the course of saving the Princess.
  - Is it metafictionally true that Mario enjoys multiple lives?
    - No! because, intuitively, cultural artefacts do not live.[2]
- What is all this talk about Mario's "multiple lives"?
  - It sounds *metaphorical*...
  - ... but we'll see it's a little more complicated than that!

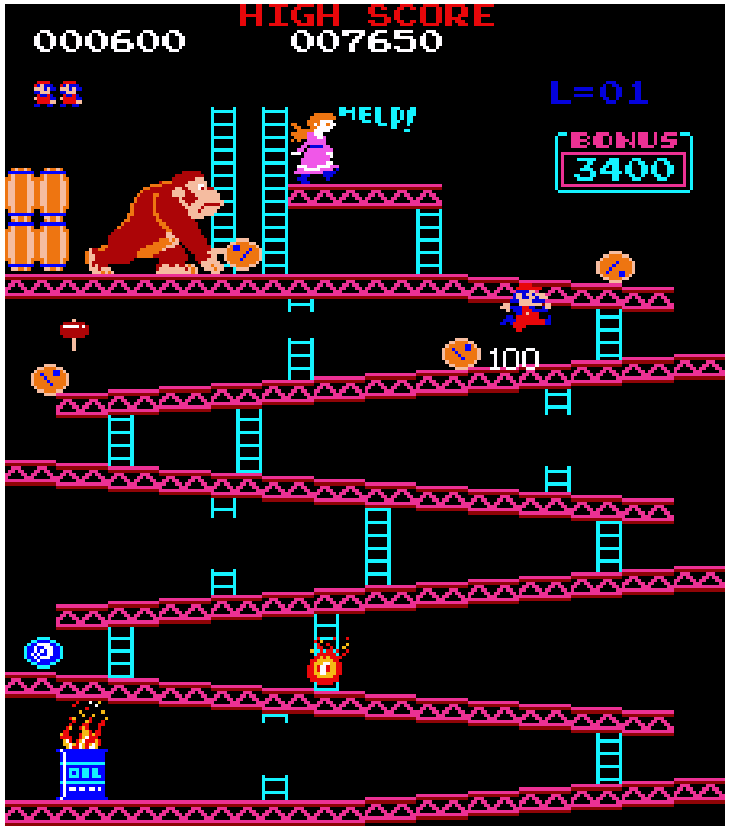
[1] The labels comes from Lamarque and Olsen (1994: 144) There are alternative labels for the same distinction. Following (Bonomi 2008), some philosophers distinguish between "textual" and "metatextual" uses. Others distinguish between "fictional" and "metafictional" perspectives (Friend 2007), (Everett 2013). Kripke (1973/2013: 104) originally contrasted between the "fictional way" and the "'out-and-out' way". See (García-Carpintero 2019) for a comprehensive, opinionated review of the literature on this distinction.

[2] If you are an antirealist: No! because Mario does not exist, *a fortiori* he does not live.

Mario in *The Original Donkey Kong* (arcade)



Miyamoto's preparatory drawings for *Donkey Kong* (1981)



1st level of *Donkey Kong* (1983)

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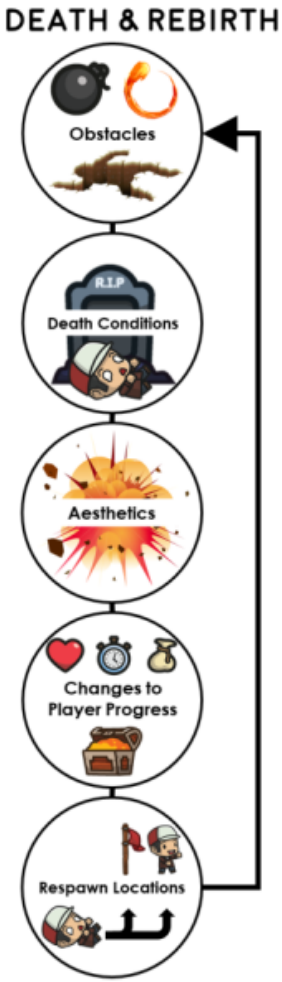
More on the death-rebirth mechanics

- Focus on single-player "platformers":
  - video games where players typically control a character (PC or avatar)[3] who jumps around and must avoid obstacles.
  - but the mechanics extends to most avatar-based games, and multiplayers.
- Cuerdo and Melcer (2020) show that the death-rebirth mechanics has a stable structure, which can vary along 5 dimensions:

> *Our taxonomy describes 5 major aspects of the cyclical process of death and rebirth: (1) Obstacles, which are the cause of (2) Death Conditions being met and resulting in player death depicted through (3) Aesthetics as well as causing (4) Changes to Player Progress before being reborn at (5) Respawn Locations to repeat the entire process. While not every game follows this process exactly (e.g., characters cannot die in some games), this taxonomy provides the high-level structure necessary to understand, break down, and categorize the process of death and rebirth among a variety of platformer games.*

[3] I will use *avatar* to mean *player character* (PC) throughout, making no distinction between the PCs one can customize and those one cannot.

The mechanics of multiple lives



1. *Obstacles*: they can be objects (spikes, pits, moving platforms, rising lava, ...), or characters (following a fixed path or not);
2. *Death conditions*: instant death vs. death when out of health (vs. no death: loss of progress instead);
3. *Aesthetics*: the specifics of the depiction of death (visually, auditorily, tactually);
4. *Changes*: consequence of death (loss of items, points, skills, etc.);
5. *Respawn*: back to beginning vs. checkpoints (automatic or save points).

(Cuerdo and Melcer 2020: 4)

Aside on the function of multiple lives

- In early "coin-operated" machines, death and rebirth had an *economic* function
  - rebirth = one more coin
- More generally, death usually serves a *didactic* function
  - rebirth = try again

> *These deaths, then, have a didactic function and take place on the ludic level of the game and not on its narrative level. [...] Staying alive is rewarded by being able to enter the next level, improving skills, gaining experience points, or reaching a higher rank in a game. Dying results in punishment by losing experience points or the rank and the status related to it, paying for damaged equipment, or for a soul healer to retain the full functionality of the avatar in game again. Following Nohr (2013: 67), "the player subordinates willingly to a procedure of optimizing his or her actions – a self-optimization". (Wenz 2014: 389)*

- Some authors also argue that death serves an *aesthetic* function
  - because of specific emotional responses (Melnic and Melnic 2018),
  - or specific representational resources (Curtis 2015), (Ntelia 2015).

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Back to Mario's puzzle

- What I called "Mario's puzzle" was explicitly "solved" by the game designer and game researcher Jasper Juul:[4]

> *The fictional world of Donkey Kong is only very superficially described, but it is possible to imagine a world in which Mario's girlfriend is kidnapped by an evil gorilla and has to be rescued. [...] It is harder to understand why Mario has three lives: Being hit by a barrel, by a fireball, or by an anvil should reasonably be fatal. Furthermore, the player is rewarded with an extra Mario at 10,000 points. [...] While, technically, any world can be imagined, and we could explain Mario's reappearance by appealing to magic or reincarnation, the point here is that nothing in Donkey Kong suggests a world where people magically come back to life after dying. In an informal survey of Donkey Kong players, all players explained the three lives by appealing to the rules of the game: With only one life, the game would be too hard.*
>
> *[...] Mario is not reincarnated (fiction); the player just has three Marios (rules). [...] I propose that we call this type of fictional world an incoherent world, meaning that there are many events in the fictional world that we cannot explain without discussing the game rules. Still, if we focus on the rules of the game, the experience of playing Donkey Kong is not incoherent. (Juul 2005: 123-130)*

[4] Jesper Juul (2005). *Half-Real. Video Games between Real Rules and Fictional Worlds*. MIT Press.

"Why does Mario have three lives?" as a silly question

- Video games articulate two dimensions one should thus distinguish:
  - the ludic vs. the narrative;
  - the mechanics vs. the dynamics;
  - the real (game rules) vs. the fictional (character's actions).
- "Does Mario have three lives?" thus qualifies as a *silly question* (Walton 1990: 176)
  - a *silly question* is a(n embarassing) *fictional question* which has a straightforward *metafictional* answer.
  - Just like: "Why are Jesus and the apostles on the same side of the table?" in Da Vinci's *The Last Supper*:
    - Not because they wanted to avoid bad breath (fictional answer),
    - but because Leonardo could thus depict all of their faces (metafictional answer).
  - Similarly, "Why does Mario have three lives?":
    - not because he *fictionally* returns to life after death,
    - but because the designers balanced difficulty and fun by giving the player three retries.
- So, Mario's puzzle is not really a problem, but a silly question, pointing to the uncontroversial double structure of video games.

More on the metaphorical meaning of life

- The driving idea is that this talk of "multiple lives" is not *literal*:
  - When one says: "Mario has three lives", one means "the player has three chances to beat the game".
  - That *Mario fictionally dies* means that *the player* controlling Mario *really failed*;
    - just like I can use "I" to refer to Mario, but "I" is not used literally.
  - The meaning of "life" in such context is derivative, or metaphorical.[5]
- This meaning transfer is given by the didactic function of virtual death:
  - "death-as-failure": fictional death = real failure;
  - fictional life = real try, or chance.
- It follows that, fictionally, Mario *does not* have multiple lives.
  - in each gameplay, Mario has one and only life;
  - but there is a possibility for several successive gameplays.[6]

[5] **NB**: the specific figure of speech at issue here is most likely a synecdoche (internal logic) *and not* a metaphor (free association), because the derivation from (fictional) death to (real) failure is pragmatically encoded in the game rules.

[6] cf. Fisher (2022)'s distinction between "branch truth" and "work truth".

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Generalisation problems for "death-as-failure"

- The didactic function cannot be the whole story, because in some games death and rebirth is not tied to trial and error:
  - e.g. The Game of the Goose (board game): dying is tied to chance, so there is no learning mechanism involved.
  - The phenomenon of *permadeath*, i.e. death of an avatar without rebirth blocks the learning mechanism by design.
- Some games have diegetic explanations for rebirth, building on the fact that it is fictionally true that the avatar died (Tocci 2008: 193):

> *Even the Prince of Persia runs out of mystical sand eventually. When this happens, the narrator, in a move reminiscent of 1001 Arabian Nights, speaks over the "Continue" screen, "No, no, that's not what happened." The player may need to repeat certain scenes, but this move likely signals an attempt to preserve some sense of fictional coherence.*
>
> *To consider another example, when the protagonist dies in BioShock, he immediately awakens in a "Vita Chamber," built to bring people back to life. Why it is that the protagonist is the only person in the game who awakens in such devices becomes a major plot point late in the story.*

Fictionally risking one's life

- If "dying" was metaphorical for "failing", then there would be no difference between *abstract* and *representational* games:
  - In *Tetris* (no fictional world to be imagined), when one fails, one can say one "dies" metaphorically;
  - by contrast, Mario dies "less metaphorically", so to speak...
    - Indeed, it is fictionally the case that Mario risks his life to save Pauline from Donkey Kong.
  - The presence of an avatar changes the game:

> *The avatar in early games was not an anthropomorphic figure or part of a storyline but often only a spaceship or a cannon; "death", then, was the loss of a spaceship. The spaceship's passengers were not visible, and the question as to whether a spaceship required a commander within the game world was not relevant. Central to gameplay were objects that the player could manipulate during interaction with the machine. Concepts as "life" or "death" were used only metaphorically. The first game showing the death of a human-like avatar was Gun Fight (Midway, 1975). When the avatar died, the text "GOT ME!" appeared.*
>
> *[...] The representation of death in video games has changed a lot since rather abstract human stick-figures were being shot or run over. The graphic representation of human figures has become more and more photorealistic, and cinematic representations of death and killing are now the norm in action games produced for adult gamers. (Wenz 2014: 387-8)*

Extra lives

- Mario does not only die: he can also get an extra life, thanks to so-called "1-up" mechanisms:
  - e.g. eating a 1-up mushroom, collecting 100 coins, jumping on 8 consecutive enemies without touching the ground, ...
- so the winning of lives corresponds to some literal fictional content:
  - It is fictionally true that Mario eats a green mushroom, *and consequently* it (really ?) produces an extra life;
  - vs. it is not fictionally true that Mario dies, but it is really true that the player failed.
- The metaphorical reading of "dying as failure" is based upon the non-literal meaning of "dying" (i.e. *Mario does not literally die*.)
  - looking at winning (instead of losing) lives rather suggests that what fictionally happens fictionally happens,
  - and that causes whatever the rule says does happen;
  - so we need a story to correlate the counting of Mario's lives with Mario's deeds.[7]

[7] The term "incoherent" used by Juul (2005) precisely suggests there is no such story.

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Taking stock on the life count

- Mario's life count is not, strictly speaking, fictional information about the storyworld.
  - Yet, Mario's lives count tracks Mario's progress, and it appears on the screen while playing;
  - So, what is on screen is not necessarily about the storyworld.
- Moreover, Mario's life count is not information about the real world.
  - Indeed, either Mario does not exist in the real world (antirealism);
  - or it is a cultural artefact (realism) and does not live or die.
- Contrary to the "death-as-failure" solution, we end up with a 3-layered informational model (reality, fiction, periphery):
  - the counting of lives is middle-ground information, so to speak:
    - it is *about* the storyworld,
    - but not within it.
  - Counting lives is as if one was keeping an eye on (part of) the branching structure, while acting in the storyworld.

The fictional periphery

- Take a traditional heterodiegetic narrative fiction like Jane Austen's *Emma*:

  Emma's teller not only never crosses Emma's path, but is in principle prevented from doing so, since, in some sense, that teller and that lady fictionally inhabit different domains. (Predelli 2020: 46)

- This *metaphysical* insularity combines with *semantic* overflow:

  That boundary [between the core fiction and the fictional periphery], though inevitably in place, is also a porous frontier. Emma's fictional teller cannot fictionally kiss that handsome young lady or kick her father. Yet, fictionally, he can speak of them, and he can do so by means of using their names. (Predelli 2020: 53)

- *To mind*: the fictional periphery[8] is not *another* fictional world, but an invisible setting in the middle of the storyworld.

[8] Alternative terminology: "fiction secondaire" (Vuillaume 1990), "game world" (Walton 1990), "'secondary' story world" (Walton 2013). See also the standard structuralist model for narration distinguishing between story and discourse (Culler 2011).

Peripheral information

- The fictional periphery is *the* place for the narrator-naratee encounter...
- ... but it is also a "noisy" place:
  - see in particular narratively significant non-diegetic music in film, as analysed in "Film Music and Narrative Agency" (Levinson 2006: §9)
  - Within game studies, "transdiegetic sounds" (Jørgensen 2011) denotes sound/music that is both non-diegetic and functionally relevant for playing:[9]

> *Such sounds have an important fucntional value in computer games by being an extension of the user interface and providing information such as feedback and warnings to the player. Utilizing the border between diegetic and non-diegetic, transdiegetic sounds merge game system information with the gameworld and create a frame of reference that has usability value at the same time as it upholds the sense of presence in the gameworld. (Jørgensen 2011: 85)*

  - **Rk:** sound is usually a crucial (aesthetic) aspect of the death-and-rebirth mechanics.

[9] She is particularly interested in the fact that sound is used to *integrate* the different spaces smoothly.

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The avatar spriritualism

- Generalising from Jørgensen (2011)'s concept, Ntelia (2015) proposes to consider "what could be called a *transdiegetic consciousness* between the player and the avatar inside the game world."[10]
- The meaning of the word "avatar" is indeed usefully suggestive here:
  - an *avatar* is the embodiment, or the incarnation (the "descent") of an immortal being;
  - so the concept of an avatar suggests a body-mind dualism, that is structurally reflected in the model presented here.
- We end up with a three-layered structure for games (just like for standard narrative fictions):
  1. the *storyworld*: the fictional space for the avatar, and the other non-player characters;
  2. the *fictional periphery*: the fictional space for the ludic narratee, and the counting of its lives;
  3. the *real world*: the space where one interacts with the base artefact.

[10] She uses this concept to signal a double-consciousness in gameplaying; the experiencing of death is thus made more subtle into her "thanatological approach".

One periphery for several worlds

- The proposal is strongly unificatory in that narrative fictions exploit the same structure be they interactive or not:
  - in non-interactive fictions, narrators and narratees standardly have super-powers
    - in space (they can move around instantaneously in the story world),
    - and time (they can go back and forward);
  - in interactive fictions, the ludic narratee's super-power is modal: it can move across ways the storyworld might be.
    - **csq**: when Mario re-incarnates, he does not re-incarnate in the *same* world, but in another possible world.[11]
    - At the periphery, one looks not only at *one* world, but at a set of worlds (endowed with a branching structure (Fisher 2022)).
- **Rk**: there are non-interactive fictions where the narratee also looks at branching worlds.
  - e.g. Kieślowski 1981/87 *Blind Chance*; Resnais 1993 *Smoking/No Smoking*; Howitt 1998 *Sliding Doors*; Tykwer 1998 *Lola Rennt*.

[11] Dunno how it squares with the hinduist theological considerations on the "descent": can Vishnu "descend" in different possible worlds?!

Further thoughts

- The ludic narratee yields an interesting identity conditions for games:
  - one might like the view that a game does not change if we change (real) players or if the (fictional) avatar dies;
  - such identity conditions are part of the artefact (the game design vs. actual playthroughs);
  - that view is intuitive because it builds on the distinction between virtual death and "game over".
- Introducing a finer-grained concept of *identification*:
  - Many video-game scholars distinguish video-games from ordinary narrative fictions on the ground that one should *identify* with one's PC
    - See Tavinor (2005, 2008), Velleman (2008), Robson & Meskin (2012, 2016)
  - we rather predict that players identify (at most) with the *ludic narratee*, and not with the avatar.
    - i.e. identification with a spirit-like entity which can inhabit several worlds...
    - ... and not identification with a flesh-and-blood character in a storyworld.
  - However, this notion of identification across multiple worlds would lead us far too far away!

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