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# Between Freedom and Constraint —ROM Hacking of Pokémon Games—

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**概要** This paper aims to study a creative practice widespread in video game cultures: “ROM hacking”. By examining with the tools of rhetoric a defined corpus of ROM hacks derived from 『Pokémon』 games, the presentation will show that the formal construction of these derivative works demonstrates less a free or subversive transformation than a fairly strict respect for the original games’ conventions. By reproducing the structure of official 『Pokémon』 games, these fan productions become mirrors revealing their internal grammar. In this way, hacks can be game analysis tools.

**キーワード** Hacking, Pokémon, Rhetoric, Reappropriation, Gaming Grammar

## 1. Introduction

Hacking is a creative practice (also called “modding”, in the field of PC games) that consists in modifying some elements of a game (characters, levels, maps, sprites, etc.) in order to create a renewed version, or even a fully fledged new game. These transformations can be more or less substantial: they range from simple bug fixing or customization of the interface, to a complete redesign of the game’s content and gameplay. This is why players usually distinguish between two major categories of mods or hacks: “partial conversions”, which are limited alterations of some aspects of the game (to replace Mario’s sprite with Sonic’s in *Super Mario World*, for instance)<sup>[1]</sup>, and “total conversions”, which, for their part, radically transform the original game. The famous first-person shooter 『Counter-Strike』 (1), for example, was initially a total conversion of the game 『Half-Life』 (2): it so deeply modified the original’s components, graphics and rules that we hardly recognize them in the transformed version.

The video game industry’s attitude towards this type of creation varies considerably depending on each case: while some publishers encourage hacking and facilitate it by providing players with editing tools, others are wary of fan productions and try to forbid their diffusion (Nintendo, among others, regularly goes so far as to threaten the players-creators with legal proceedings).

Although hacking has already caught academics’ interest, most research dedicated to this topic only examines it – for now – as a social practice, by questioning its relationship with the industry: what are the economic consequences of hacking? How can it serve the gaming business (on this topic, see, among others, the works of Postigo<sup>[2]</sup> and Nieborg

and Graaf<sup>[3]</sup>)? What legal problems can it cause, especially in terms of copyright (see Scacchi<sup>[4]</sup>, Nieborg<sup>[5]</sup> and Postigo<sup>[6]</sup>)? Do hackers show subversion regarding mainstream video games (Sihvonen<sup>[7]</sup>), or are they only aspiring professionals trying to rejoin the industry (Laukkanen<sup>[8]</sup>, Morris<sup>[9]</sup>) and volunteering (or even being exploited by the studios through a kind of “playbour”; see Kücklich<sup>[10]</sup> and Sotamaa<sup>[11]</sup>)? In the academic field, hacking is thus approached almost exclusively through issues related to property and profit, as if the sole purpose of the practice was, ultimately, to lead players-creators to professionalization and to the commercialization of their hacks. Conversely, very little research has focused on the formal aspects of the hacks, on their aesthetics or on their stylistic processes.

To overcome this deficiency, this paper proposes to study hacking from a rhetorical perspective, with illustrations selected in a *corpus* of ROM hacks derived from 『Pokémon』 (3) games<sup>1</sup>. Within the limits of this presentation, I will focus on two properties of hacking as a rhetorical process: on the one hand, it feeds a given video game language (by opening up its possibilities); on the other hand, it reveals the inner grammar of this language.

## 2. Feeding the Video Game Language

Hacks enhance the expressive potential of the video game language at three levels: lexical, syntactical and enunciative.

First, these modifications enrich the *lexicon* of the original game – quite obviously – by introducing new images, new

<sup>1</sup> This is a brief insight into one chapter of my PhD dissertation<sup>[12]</sup>, dedicated to the *détournement* of video games by players (modding, machinima, speedrun, fanfiction, etc.).

characters or new interactive objects in it. For instance, in the case of Pokémon games, many hacks add “Fakemon” to existing versions: i.e. new creatures unofficially invented by fans<sup>2</sup>.

Secondly, transformations have an effect on the *syntactical* level of the game, by changing the rules for combining the lexicon’s elements or by reorganizing them. Thereby, in ROM hacks, not only the game environments are completely reorganized (through the process called “mapping”<sup>3</sup>), but, moreover, the modes of interaction with these environments can also be modified. In the hack 『Pokémon Prism』 (5), for example, innovative mini-games allow players to change their avatar and play, not just trainers, but Pokémon.

Finally, on the enunciative level, hacking opens the repertoire of Pokémon games to more expressive potentialities by including these games in the field of amateurism, gratuitousness and illegality. This transfer cancels several restraints specific to the commercial and legal framework of the original titles. A hack, for example, does not have to be a completed product: most fan creations are, actually, unfinished works or, at least, “works in progress”. This is a typical property of amateurism (creation being, in this domain, a goal in itself): the production is not an outcome, but a simple step in a never-ending creative process. Besides, the change of enunciative framework also allows hacks to explore themes that could not have been exploited in mainstream games, such as vulgarity and sexuality in the parody hack 『Pokémon My Ass』 (6), or violence and gore in 『Pokémon Snakewood』 (7). In short, hacking can be seen as a creation practice freed from commercial limitations, thanks to the autonomy of amateur field.

### 3. Revealing the Video Game Grammar

However, since hacks are based on a pre-existing game’s structure, they are also, in a way, the result of a “constrained creation” process. As such, they retain marks of the constraints imposed by the source-game. In other words, the original game does not disappear when it is modified: its structure remains visible and readable through the hack, as through a *palimpsest* (incidentally, Stasi<sup>[13]</sup> uses the palimpsest metaphor to describe another fan creation practice: fanfiction writing). Such a “palimpsestuous” dynamic (as would say Genette<sup>[14]</sup>) is actually a peculiarity of parody and artistic reappropriation in general:

<sup>2</sup> As an illustration (among many others), see 『Pokémon Cyan』 (4).

<sup>3</sup> The graphic tiles which make up the original Pokémon maps (trees, textures, buildings, etc.) are reconfigured to produce new villages, forests, paths, caves, etc.

“Parody – at the same time as it deforms and subverts its target – preserves and respects it, by incorporating it into its own form in a recognizable way”<sup>4</sup> (Tran-Gervat<sup>[15]</sup>).

As reappropriations or rewritings, hacks thus function as revealing prisms of the gaming language mechanisms. They expose how this language works, whether by repeating it, by reversing it, or by representing it in a reflexive way.

#### 3.1 Through Repetition

Surprisingly, despite the absence of external obligations imposed on players-creators, hacks of Pokémon games are most often characterized by a pronounced classicism. Even hacks with a completely original story replicate, for the most part, the overall structure behind official Pokémon games: a trainer gets his first creature, then goes on an adventure to acquire eight badges and defeat the League; on the way, he is regularly challenged by a rival, he is confronted with a criminal organization, he helps the inhabitants by conducting brief quests in exchange for rewards, etc.

Beyond these script elements (the sequence of events, the characters’ behavior, etc.), the very mapping style of official games is also reproduced in fan productions. In the hack 『Pokémon Eclipse』 (8), for instance, the player must follow a route which alternates cities (containing Gyms and quest-giving NPC) and several biomes (forests, caves, roads, etc.) sheltering specific creatures. If the scenery varies, the exploration follows a precise rhythm (city - forest - city - cave - city - road, etc.) which is modeled on the original game. Moreover, in the hack, the places’ names obey a thematic coherence: the cities all refer to natural elements (Lapis Village, Coral Town, Wisteria Town, etc.) and the intermediary biomes refer to mythological figures (Oracle Forest, Gorgon Shore, Valkyrie Hill, etc.). This thematization of the universe’s architecture is borrowed from the source-games (in Pokémon Red and Blue, for instance, all the cities’ names derived from colors). The whole structure of Pokémon Eclipse, in sum, repeats an “architectural pattern” defined by the source work.

But this hack also contains more specific quotations: some events, quest structures or puzzles are largely inspired by official games. An example – among many others – is when Pokémon Eclipse asks the player to fight five trainers called the “Flower Brigade”. These characters are placed one after the other on a path and they promise their opponent a “fabulous prize” in case of victory. Their positioning evokes a very similar obstacle in the source game: the fight against

<sup>4</sup> My translation of: « la parodie, en même temps qu’elle déforme et subvertit sa cible, la conserve et la respecte, en l’intégrant de manière reconnaissable dans sa propre forme ».

the five trainers of the "Nugget Bridge", which rewarded the player with a "Nugget" if he managed to defeat them.

Finally, it is interesting to note that Pokémon Eclipse respects Pokémon's conventions even when they do not make sense in the modified version. For instance, in official games, environments are populated with NPCs whose function is to reveal to the player, through dialogues, encyclopedic information about the gameplay and the fictional universe (such as "press the B button to run"; "Pokémon evolve in different ways", etc.). In the hack, these tutorial-sentences (and even their formulation) are replicated very accurately: such a didactic tone is surprising, given that the hack is aimed at an audience of players familiar with the Pokémon saga, who therefore do not need to be guided so firmly. Moreover, this pedagogical tendency is denied by the hack's difficulty (which is significantly higher than in the original games): while dialogues are addressed to the player as if he were a neophyte, the gameplay builds a much more competent "model-player"<sup>5</sup>. By repeating some of Pokémon games' conventions (even when they are not justified), hacks make these codes unnatural and, therefore, perceptible. In addition, through these reuses, players demonstrate a sharp understanding of what makes a game identifiable as belonging to the saga.

### 3.2 Through Inversion

Conversely, hacks can also reveal an implicit rule of the original game by reversing it or by contradicting it.

In the modified version 『Pokémon Glazed』 (9), for example, the fact that the avatar sometimes starts abruptly talking highlights, in contrast, the mutism of Pokémon games' protagonists. Similarly, the constant vulgarity and sexual allusions in the parodic hack 『Pokémon My Ass』 (6) reveal, as a mirror, the radical absence of such registers and themes in the official series. More generally, Pokémon My Ass appears as a vast semantic reversal of its source: the avatar is violent and physically attacks the characters he meets; signs and posters no longer contain tips, but insults; Pokémon are not loved, but can be sold to a butcher; etc.

In these illustrations, the transformative mechanisms could be described as "intertextual metaphors", since the meaning of the game's element or event is replaced by another, following a comparison link: a tutorial sign from the original game becomes, in the hack, a "pornographic poster"; the avatar does not just acquire items, but "steals" them from

<sup>5</sup> The notion of "model player" is an adaptation of the concept of "model reader" developed by Umberto Eco in literature<sup>[16]</sup>. It designates a representation produced by the text of the competence expected of the reader, which is necessary for a text's potential content to be fully actualized.

NPCs, etc.). These figures are an example of what Genette calls "hypertextual comedy"[15] (p. 532), since humor comes here from an effect of contrast which is only perceptible when the source-game and the derivative creation are considered together.

### 4.3 Through Reflexivity

Finally, hacks can reveal the gaming grammar through reflexive mechanisms. In other words, they can appear as comments of the games they are remixing: hacks abound with metaleptic<sup>6</sup> passages, through which the work exposes its own structure or elaboration.

As an illustration, in the official Pokémon games, a graphic convention consists in circling with black texture the inside of buildings in order to mark the limits of the rooms (since these are smaller than the outside maps and since the world is always seen from above according to the same perspective). These black edges are therefore a *non-place* of the game: an area that has no existence – either playful (the player cannot get there)<sup>7</sup> or narrative (it represents nothing). Yet the hack 『Pokémon Eclipse』 (8) (mentioned above) regularly oversteps this limit of the representation by placing hidden items inside the black borders. These objects are announced by the presence of a sporadic spark and, to recover them, the player must blindly find a path which is not indicated by any visual clue. The transgressive nature of these puzzles – which force the protagonist to go out of the frame of the representation – brings out the ambiguous semantic status of these spaces in the original games.

Reflexive figures can also take the shape of comments made by NPCs. Thereby, still in Pokémon Eclipse, the mapping principle of using characters, creatures or obstacles to linearly guide the player's exploration is mentioned (and thus made visible) by a character, who says to the player, exasperated: "seriously, what's up with these random Pokémon and objects blocking my way all the time?". The process is similar when, in 『Pokémon My Ass』 (6), the sign which is supposed to describe Pallet Town – the first village of the original game – is replaced by the text: "Pallet Town – Where there are no more than three houses!" (which ironically points out that the so-called "town" actually contains fewer houses than inhabitants).

Still in Pokémon My Ass, we can also find a reflexive mechanism based on the "ludo-narrative dissonance"

<sup>6</sup> A *metalepsis* is a transgression of a level of fiction, like, for example, when a fictional character speaks directly to the reader (see Genette[15], p. 527).

<sup>7</sup> If we open the ROM hack with an editing tool, we can see that these black spaces are identified in the code as *solids*: tiles on which the avatar cannot walk (like trees, walls or rocks).

principle. In this hack, the Pewter City contains a building with a locked door. If the player tries to enter, a text will inform him of the motive for this closure:

“Night Club – Bitches tonight. Unfortunate[ly] this game sucks and the day never ends”.

The Pokémon FireRed version, indeed, does not set up time management or alternation between day and night: in such a game, a place which only opens during the night is therefore meaningless. The hack thus exhibits its own limits by making discordant the narrative and the system’s technical possibilities.

Hacks, ultimately, are works that lay bare their own creative processes. The presence of reflexive figures, in these secondary games, also has the effect of presenting them, not as finished works, but as representations of the very act of creation. The modifications continuously document (through repetitions, inversions or meta-comments) the process that gave birth to them: they call back the *hacking* within the *hack*, to the point of making the creative performance (and not so much the game produced) appear as being the true end of the activity.

## 5. Conclusion

In sum, by exploring its possibilities, showing its limits and isolating its conventions, hacks reveal the functioning of the game they transform and of the language they appropriate. By refusing the rules and the implicit grammar of video games, by parodying or exaggerating them, *hacks* (as reappropriations in general) render them unnatural and, paradoxically, exhibit them. As such, they can be powerful analysis tools to study and understand video games.

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