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Video Game Genre, Evolution and Innovation

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Every once in a while comes a video game that claims – or is claimed – to ‘revolutionize’ its genre, to bring it beyond what it used to be, or to ‘evolve’ it, defining a new step along the generic road it is treading.¹ As a case in point, Aki Järvinen’s (2002) review of *Halo* (Bungie Software 2001) boldly states that with this release, “the FPS is dead. Long live the new FPS!” With *Halo*, Järvinen says, came a new generation of First-Person Shooters; he even likens the game’s arrival to a meteorite crashing on “Planet First-Person Shooter”, causing the extinction of prior life (“Quakesauruses”) and paving the way for, metaphorically, the rise of the next life-form. One could not ask for a better textbook statement for showing that the idea that genres ‘evolve’ akin to biological species is second nature to the discourse of most knowledgeable gamers, gaming press people, industry veterans and game studies academics. Innovation in video game genre is consequently understood as either exploring radically new ground by creating a new genre, or refining current mechanics up one notch and taking an existing genre to a new age; or, as Daniel Cook (2005, p. 2) puts it, “Playing King-of-the-Genre”. Järvinen writes:

Halo doesn’t lack innovativeness. Rather, its innovativeness lies in its ability to mix. The game does not come up with ground-breaking yet simple design solutions [...] It does not have (under-used) gimmicks like the “geo-mod” feature in *Red Faction*, or the role-based multiplayer scenarios of *Return to Castle Wolfenstein*. *Halo* is not so much about “combat evolved” as the subtitle suggests, but about “genre evolved”. (Järvinen, 2002)

There are several under-addressed problems resting underneath these assumptions. Two of them will be the focus of this present piece, which we will treat more or less successively though they are significantly interdependent. Both point to a third area of investigation.

One: If the idea of genre evolution is second nature to most that have written on the topic, the idea of genre itself is even more deeply seated. Why are we speaking of video game genres, and what do we mean by that? It is generally accepted that “[v]ideo game genre study differs markedly from literary or film genre study due to the direct and active participation of the audience” (Wolf, 2002, p.114). A question that no one seems to care about is whether it is justified to use the term *genre*, then, if the way in which we use it to talk about games has no common basis in film and literature. Tradition often is the strongest shield-arm: after explaining what video game genres are, Cook (2005, p. 1) thus defends his use of the term: “historical usage in the game industry leaves us little other choice.” Examining the usage of video game genre labels through a brief survey of a few generic taxonomies will reveal multiple different ways of organizing them according to a multitude of criteria. As I will show, it is not problematic to have various crisscrossing criteria for determining video game genres since the very notion of genre is controversial and, quite bluntly, a mess.

Two: If we accept genre to be a fruitful model to identify the multiple kinds of video games that are out there, we have to account for its transformations, adaptations and reinventions. We cannot do so while ignoring the state of research on the topic; to paraphrase one of Tolkien's characters on the land of Mordor, one does not simply walk into genre. Evolution (in the biological sense of progressively becoming better-suited to survive, which means to improve over one's ancestors and forerunners) in literary and film genre theory has been heavily contested as of late, and replaced with alternative models of experimentation. If the same is true of games, then there cannot be a *Halo: Genre Evolved*. We would then be forced to conclude that *Halo*, *Half-Life* (Valve Software 1998) and *Doom* (id Software 1993) are all equal experimentations devoid of any 'evolution', metaphorical brothers and cousins without any generational gap between them. (If this idea does not seem outlandish, let me be more explicit: this is a case of *reductio ad absurdum*.)

Admitting genre evolution requires us to properly address the topic of innovation that lies at its basis. Consequently, a model of innovation specific to the video game industry has to be devised. Such a model will reveal that, far from being reducible to a simple checklist of specific game mechanics, video game genres play the part of the middle-man in a complex ecosystem of functional considerations and aesthetic ideas.

Part I. The Idea of Genre

The trouble with games

Video games tax our current comprehension of object-bound disciplines. As Espen Aarseth signalled in 2001, the term's field of reference is so vast that it causes sizable problems:

[...] computer games are not one medium, but many different media. [...] the extensive media differences within the field of computer games makes a traditional medium perspective almost useless. We end up with what media theorist Liv Hausken has termed media blindness: how a failure to see the specific media differences leads to a "media- neutral" media theory that is anything but neutral. This is clearly a danger when looking at games as cinema or stories, but also when making general claims about games, as though they all belonged to the same media format and shared the same characteristics (Aarseth, 2001).

Indeed, there is danger in making general claims that would apply to all games. As David Buckingham put it:

The attempt to identify an essential 'gameness' of computer games may encourage us to recognize what games such as *Tetris* (1988) and *Final Fantasy X* (2001) have in common; but what they have in common may in fact be rather less interesting or important than the ways in which they differ (in Carr *et al.*, 2006, p.7).

In the past and in another equally object-bound field of study, Noël Carroll and David Bordwell have issued the same warning to film studies scholars, pleading for “piecemeal” theories and “middle-level research” to better account for some specific features of certain kinds of films that were being left out of sight with the prevailing “Grand Theories”.² But going too far down that road is problematic as well: a field of research focused on an object (like *game* studies) cannot thrive if that object is held or claimed to be so heterogeneous that what applies to games X and Y has nothing to do with any other game. Nick Montfort’s 5-year old call “Against *Tetris* Studies” (Montfort, 2004) still has significance outside the ludology/narratology debate, lest we end up with “*World of Warcraft* (Blizzard Entertainment, 2004) studies”, “*Halo* studies” and “*The Sims* studies”. Some kind of balance has to be struck between the cosmopolitan whole of “video games” and the tiny ant of “*this* game” (I am ready to admit that *World of Warcraft* may be a really large ant, especially in the Social Sciences, but still an ant, and not a colony in itself.)

Those in game studies who have echoed Aarseth’s call have mostly invoked the concept of genre as a useful bridging tool between the over-particular and the over-universal. The most explicit is Rune Klevjer’s piece for the DiGRA Hardcore column appropriately titled “Genre Blindness”:

There is a gap on our field between general theory and analysis of particular games. [...] We see a lot of theoretical investigation into aesthetic, social and psychological mechanisms that applies either very broadly or to games and play in general. On the other hand, there is also quite a lot of analysis that focuses on one, or maybe two or three games, and which may include some general observations on the condition of modernity and so on, but which does not make any consistent claim to describe the typical characteristics of larger categories of games (Klevjer, 2006).

One of the “notable exceptions” Klevjer mentions that is doing work at the level of genre is Bernard Perron. He and his research team Ludiciné identify the same “gap” in the description of their two most recent research projects:

In light of the multiplication of general studies on the video game, the proposed notions now need to be tested using a clearly defined corpus. [...] The video game is increasingly the subject of academic study, but few research projects focus on a video game corpus of a generic nature. (Perron *et al.*, 2008; freely translated)

These postulates may seem strange given that there have been forays into the topic of genre in video games as early as Chris Crawford’s 1984 *Art of Computer Game Design* and David Myers’ 1990 “Computer Game Genres”. Perhaps genre has remained under-theorised through the years because it appears to be unproblematic. As anyone remotely familiar with gaming knows, genre is how gamers, retailers, and the industry alike parse out the vast landscape of the joystick realm. A few examples of generic taxonomies should suffice here. The *MobyGames* database website’s front page allows visitors to either search for specific games, or browse by platform, year, and genre. The website’s glossary lists and explains the following terms across multiple categories:

Basic Genres	Action, Adventure, Educational, Racing / Driving, Role-Playing (RPG), Simulation, Sports, Strategy
Perspectives and Viewpoints	1st-Person, 3rd-Person, Isometric, Platform, Side-Scrolling, Top-Down
Sports Themes	Baseball, Basketball, Bike / Bicycling, Bowling, Boxing, Cricket, etc. (29 total)
Non-Sports Themes	Adult, Anime/Manga, Arcade, BattleMech, Board / Party Game, Cards, Casino, Chess, Comics, Cyberpunk / Dark Sci-Fi, Detective / Mystery, Fighting, Flight, Game Show, Helicopter, Historical Battle (specific/exact), Horror, Interactive Fiction, etc. (42 total)
Educational Categories	Ecology / Nature, Foreign Language, Geography, Graphics / Art, Health / Nutrition, etc. (14 total)
Other Attributes	Add-on, Coin-Op Conversion, Compilation / Shovelware, Editor / Constructor Set, Emulator, Licensed Title

Fig. 1: Extracts from MobyGames' genres glossary.

(Source: <http://www.mobygames.com/glossary/genres/>)

Another website, *AllGameGuide*, breaks games down by *genres*, each containing a number of *styles*:

Genres (15 total)	Styles
ACTION	2D Action, 3D Action, 3D Platform, Action Adventure, Ball and Paddle, Combat, First-Person Action, Fixed Screen Platform, Interactive Screen Saver, Maze, Miscellaneous, etc.
ADVENTURE	Action/RPG Adventure, First-Person Adventure, First-Person Graphic Adventure, Interactive Movie, Survival Horror, Text-Based Adventure, Third-Person Graphic Adventure
FIGHTING	2D Fighting, 3D Fighting
RACING	Aircraft Racing, Bicycling, Boat/Watercraft Racing, Demolition/Combat, Drag Racing, Extreme Racing, Formula-1/Indy Racing, Futuristic Racing, Go-Kart Racing, etc.
SHOOTER	First-Person Shooter, Fixed Screen Shooter, Overhead Free-Roaming Shooter, Platform Shooter, Shooter with Weapon Peripheral, Side-Scrolling Shooter, Squad-Based Shooter, Third-Person 3D Shooter, Vehicle Shooter, Vertical Scrolling

	Shooter
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Fig. 2: Genres and styles used by AllGameGuide.

(Source: <http://www.allgame.com/genres.php>)

Metacritic's classification scheme on the surface seems more straightforward, containing only a list of game genres: action, adventure, extreme sports, fighting, first-person shooter, flight/flying, party, platform, puzzle, racing, real-time strategy, role-playing game, simulation, sports, strategy, third-person shooter, turn-based strategy, wargame, wrestling.³ It is worth noting that *genre* also refers to the various other sections of *Metacritic* aside from games, as a notice on the page reads: "You are currently using the GAMES-ONLY SEARCH page. You may switch to a different genre, or search all genres simultaneously, by making a selection from the menu at the left." By clicking "Multi-Genre Search" at the top-left of the page, users can check boxes in the "Narrow Search By Genre" section and thus limit their search to the following "genres": all movies, movies on dvd or video, movies in theaters, books, music, and games. Back to our game genres, the list that I cited is also problematic since individual game entries often use other generic labels, such as "Massively-Online Role-Playing Game" (conspicuously absent from the listing of genres) for *World of Warcraft*. When contacted on the subject, site editor Marc Doyle replied via email that the genre labels were simply text fields, which in other words could be freely entered as little more than tags, and were often based on the marketing claims of the game publishers.⁴

This makes the system in practice a simpler form of *GameSpot's* relatively intricate system, in which genres can be subdivided in as many sub-branches as necessary, resulting in a blunt list of 157 categories whose diversity we may illustrate with the following excerpts:

Action > Beat-'Em-Up

Action > Fighting > 2D

Action > Fighting > 3D

Action > General

Action > Shooter > First-Person > Fantasy

Action > Shooter > First-Person > Tactical > Modern

Action Adventure > Modern

Adventure > First-Person > Fantasy

Driving > Car Combat

Driving > Racing > Arcade

Driving > Racing > Kart

Miscellaneous > Party

Miscellaneous > Puzzle > Action

Role-Playing > Action RPG

Role-Playing > First-Person

Role-Playing > PC-Style RPG

Simulation > Sci-Fi > Large Spaceship

Sports > Traditional > Ice Hockey > Arcade

Sports > Traditional > Ice Hockey > Sim

Strategy > Real-Time > Fantasy

Strategy > Turn-Based > Modern

Fig. 3: Selected genre paths and branches from GameSpot.

(Source: <http://sitemap.gamespot.com/>)

While every category is unique and independent in principle, some of the lower-tiered descriptors appear as sub-branches of multiple genres (for instance, 'Modern' comes up as a sub-branch of three different first-level descriptors: Action, Action Adventure and Strategy), sometimes on different levels ('Modern' appears at the 5th level in Action > Shooter > First-Person > Tactical, at the 2nd level in Action Adventure, and at the 3rd in Strategy > Turn-Based). Note that the levels or branches themselves are not named, which means there is no basis on which to compare them. "Point of view" comes both in 3rd for Action > Shooter > First-Person and 2nd for Role-Playing > First-Person. Comparing all 2nd-level classes would probably amount to comparing apples to oranges to shoes to faith: what do Fighting, Party, First-Person, PC-Style RPG, Sci-Fi, Traditional (Sport) and Real-Time have in common?

One thing that these different taxonomies highlight is the fluidity and impreciseness of the concept of genre itself, and how it is used in actually describing games. As a quick example provided by Sébastien Genvo, the game *American McGee's Alice* (Rogue Entertainment 2000) was identified with four different genres across four of the gaming magazines that reviewed it in February 2001: "Platform" in *GEN4 PC CD-ROM #142*, "Third-person Action" in *Joystick #123*, "Action/Adventure" in *PC Fun #69*, and "Adventure/Platform" in *PC Team #65* (Genvo 2003, p. 12). Aside from differing opinions on where should game X be placed among genre categories, there is also the question of the typologies themselves. The first determining factor of any generic typology lies in the criteria it uses. In the case of video games, we have two types of criteria: those pertaining to gameplay, and those of theme or narrative.

In scholarly writing on video game genre, most taxonomies either focus exclusively on interactive genres, or recognize the multiple nature of interactive, narrative,

thematic, social and/or even material genres. On one hand, thematic or iconographic genres, such as Science-Fiction, Fantasy and Horror, are either seen as little more than window-dressing by the ludological line of thinking⁵, or as narrative enablers and aesthetic or iconographic throwbacks to prior media that can guide interpretation (enter the narratologists!). On the other hand, there are gameplay or interactive genres, such as Action, Adventure, Role-Playing, Strategy, and so on, that are in truth a combination – or rather a *conflation* – of multiple different criteria, but all linked to gameplay. Such is the case with the usual suspects we encounter most of the time: Real-Time or Turn-Based Strategy, First-Person or Third-Person Shooter, Action/Adventure, Role-Playing, Sports, Platformers, Fighting, and so on. Mark J.P. Wolf's taxonomy in "Genre and the Video Game" (Wolf 2002) is one of the few that seems to blur the line between the two genre categories by including terms such as "Abstract", "Interactive Movie" and "Text Adventure" alongside "Adventure" and "Shoot'Em Up", yet the predominance of interactive genres over thematic ones is ascertained:

While the ideas of iconography and theme may be appropriate tools for analyzing Hollywood films as well as many video games, another area, interactivity, is an essential part of every game's structure and a more appropriate way of examining and defining video game genres (Wolf 2002, p.114).

This is echoed, for instance, by Diane Carr and Andrew Burn:

a game can simultaneously be classified according to the platform on which it is played (PC, mobile phone, Xbox), the style of play it affords (multiplayer, networked, or single user, for instance), the manner in which it positions the player in relation to the game world (first person, third person, 'god'), the kind of rules and goals that make up its gameplay (racing game, action adventure), or its representational aspects (science-fiction, high fantasy, urban realism). All these possibilities for classification coexist in games, and none are irrelevant, but we would argue that the *style of gameplay* on offer is of fundamental significance (in Carr *et al.*, 2006, p.16).

From a more industry-centric point of view, Daniel Cook straightforwardly addresses the issue in "My Name is Daniel and I am a Genre Addict": "In the game industry a genre is a common set of game mechanics and interface standards that a group of titles share. [...] *Warcraft* and *Starcraft* have very different plots and settings, but they still belong to the same genre of RTS [Real-Time Strategy]" (Cook 2005, p.1). Game designer Ernest Adams identifies 5 dimensions of game classification: Genre, Setting, Audience, Theme and Purpose. Unequivocally, "video game genres are determined by gameplay: what challenges face the player and what actions he takes to overcome those challenges." (Adams, 2009, p.2)

All these examples clearly show that genre is being used in a similar manner across popular, industrial and academic taxonomies: as a way of breaking down the vast continent of video games into more manageable provinces, with the same *credo* applied across the board: "gameplay comes first". The real question then does not concern the choice of criteria –as I demonstrated, everyone seems to think likewise – but rather, as the quote from Carr and Burn shows, and as Thomas Apperley rightfully points out in his 2006 piece "Genre and game studies: Toward a critical approach to video game genres", what comes after and around gameplay; for even

once recognized sovereign, gameplay can still be broken down into a myriad components such as type of player skill involved, avatar abilities, progression structures, point of view, temporal unfolding, etc.:

[...] genre is a category that needs to be rethought with a critical perspective in mind, because the current established genres accepted by the audience and industry do not take into account the complex layering of genre that occurs within video games. (Apperley 2006, p. 9)

The Great Genre Illusion

As we have seen with the few earlier examples of generic taxonomies, one man's genre can be another's sub-genre, simple flavor or salad dressing, and presumably another's media (I have yet to encounter a study detailing how different video game genres constitute unique media positions, but the thought appears reasonable enough that I wouldn't be surprised to find one). The problem of genre is not so much that it is practiced with different criteria, but that these criteria are of different levels, and often a different nature. The difference between Arcade games and Console games has very little to do with the difference between Strategy and Action games, which is still very different from what separates Shooters from Fighting games, and we haven't gotten to First/Third-Person Shooters yet. And dare we point at Science-Fiction First-Person Shooters and their Historical counterparts, or to the Story-Driven and Emergent Historical FPS? The more we gaze, the deeper the abyss reveals itself.

We could always go look for greener pastures elsewhere. Unfortunately, this problem is not unique to video games, but as I would argue, it is a staple of the concept of genre itself. For some twenty-five centuries, it has been treated (and mistreated) in poetics, then aesthetics and literature, and linguistics and film studies have also taken a few jabs at it in the 20th century. All those disciplines have struggled with the issue that we could name "genre leveling". Literary genre theory, especially, has been desperately swatting the air with nets in the hope of capturing something for as long as one can remember⁶. As film scholar Rick Altman puts it after a short review of the question of literary genres:

Even so simple a question as the meaning and extent of the term *genre* remains confusing, for the term inconsistently refers to distinctions derived from a wide variety of differences among texts: type of presentation (epic/ lyric/ dramatic), relation to reality (fiction versus non-fiction), historical kind (comedy/ tragedy/ tragicomedy), level of style (novel versus romance), or content paradigm (sentimental novel/historical novel/adventure novel) (Altman 2006, p. 11).

A few relatively recent attempts at sorting out the levels of genre, among many others, are those of Lauri Honko and Martine Roberge. Though 35 years apart, their systems are very similar. The Finnish folklorist claims that folk tale genres can be based on content, form, style, structure, context, function, frequency, distribution, and origin (Honko 1968, p.62). The Canadian ethnologist sees six levels of genre criteria for narratives: enunciation, reception, semantics, syntax, function, and context (Roberge 2004, p.49). In literary theory, Jean-Marie Schaeffer has similarly identified

five levels (Schaeffer 1989, p.79-116), which Raphaëlle Moine has adopted for film studies (Moine 2005, p.20-23): enunciation, destination, function, semantics, and syntax.

While I agree with Apperley that it is a problem to have multiple levels of categories conflated together, I do not believe this is something that can be worked out, even by rethinking genre with a critical perspective. This is due to something I would like to call the Great Genre Illusion. In brief, the idea is that the word *genre* is an umbrella word, and that the bundling of disparate concepts under a single name gives them a false impression of unity. I claim that the word has no more internal coherence than the word “thingy”. To paraphrase Wittgenstein on games, consider, for instance, what is a thingy; what is common to all of them; what do all thingies share? It is natural to expect literary genres, speech genres and film genres to share certain characteristics – they are all *genres*, after all – but the reality might be far less logical and satisfying. As Rick Altman writes, “it cannot be taken for granted that film genre is the same thing as literary genre.” (Altman 2006, p.12) Many forms of poetry can be characterized by the lyrical mode of address and specific formal schemes regarding the number of stanzas, length of verses, or patterns of rhymes, but none of these criteria has any basis in film genres. What emerges from Steve Neale’s overview of genre across linguistics, literature and film studies is that:

genre as a term has been used in different ways in different fields, and that many of its uses have been governed by the history of the term within these fields – and by the cultural factors at play within them – rather than by logic or conceptual consistency (Neale, 2000, p.28).

As an example of the vagueness of the word and concept at stake here, it is worth taking a little linguistic detour. The word *genre* as we use it comes from French (inherited from Latin and Greek) and means type or kind, but it also subsumes gender (in Greek, it also included race!); more importantly, it is used as a “filler” word akin to the English “like”, “kind of”, and “sort of”. What I’d like to stress is that it means *nothing more specific* than that. Northrop Frye’s famous assertion that “The very word “genre” sticks out in an English sentence as the unpronounceable and alien thing it is” (Frye 1957, p.13) is illuminating. There may be an estranging effect when using the word in another language, such as English: people hearing the word might assume it has some kind (=genre!) of specific, well-defined meaning, perhaps akin to dropping a quiet little *gestalt* or *chakra* or what-have-you. Andrew Tudor provides the perfect illustration of this duality:

Now almost everyone uses terms like “western”, the neurotic critic as much as the undisturbed cinemagoer. The difference, and the source of difficulty, lies in how the critic seeks to use the term. What is normally a thumbnail classification for everyday purposes is now being asked to carry rather more weight. The fact that there is a special term, *genre*, for these categories suggests that the critic’s conception of “western” is more complex than is the case in everyday discourse; if not, why the special term? (Tudor 1973, p.3)

Of course, in its native language, there is no special term. Foreign words are typically used for specific concepts that can’t be translated without losing something, but not so much in the case of genre. In fact, this is not exactly true: what gets lost is the very openness and extent of the vagueness of the concept. In French, it is used in

everyday, layman sentences such as “*Quel genre de film est-ce?*” To translate this sentence into “What *genre* of movie is this?” would be an unfaithful translation implying some sort of higher degree of knowledge, or at least a higher level of speech, than a more correct translation which would read: “What kind of movie is this?”. There is no mystique or prestige associated with the word *genre* in French. Not only is it used colloquially in everyday language, but we use *genre* in these kinds (=genre!) of situations as a *marker of impreciseness*: we place the word to indicate that we are making broad, imprecise generalizations. Saying “*c’est genre un film de science-fiction*” or “*c’est un genre de film de science-fiction*” amounts to “it’s kind of a Science-Fiction movie” or “it’s a kind of Science-Fiction movie”, and is very much unlike the assertive, unhesitant “it’s a movie of the Science-Fiction kind”. In the first case, *genre* allows us to say that the movie shares many characteristics with other movies of the Science-Fiction genre, but not that it is absolutely, or exclusively, a science-fiction movie. Indeed, it seems to imply a follow-up sentence that is going to explain why it *isn’t just* a Science-Fiction movie (or else we would have said it like it is: “it’s a Science-Fiction movie”). We can read between the lines and anticipate a twist: “it’s kind of a Science-Fiction movie,” (but.../except that.../only...) “the spaceships are pulled by horse-carriages”.

I may have painted in broad strokes, and in the process blurred out the landscape – which is exactly my point about genre: I think usage of the word in other languages contributes to an illusion of coherence that the concept does not have in everyday use in its native language, and hence the image of genre as blurry. If this is true, then we are facing a contradiction, for academics – linguists, literary types, film scholars, and game theorists alike – obviously do not use or build genres in such a free-form way, and are genuinely interested in defining them as well and as coherently as possible. These two usages of the same word echo Tzvetan Todorov’s (1970) historical and theoretical genres: everyday usage that acts as little more than tags in a diffuse and imprecise whole, and theoretical categories or constructs meant to be structured and rational. How do we reconcile these two then?

Simply put, we don’t – or rather *can’t*. The layman and critic’s uses of the term do not differ, despite the contingent fact that many languages rely on an imported French word to differentiate one from the other. According to the view of the concept I have presented, historical and theoretical genres share only one thing: impreciseness. While it is undeniable that theorists *try* to come up with genre categories and criteria that are fixed and unambiguous, it does not mean that they succeed in doing so. More importantly, producing theoretical generic categories does not mean that they become superimposed on the historical generic tags and labels, that they refine or alter them in any way. The earlier quote from Tudor has a key element in it: the difference between the usage of genres such as ‘western’ by laymen and critics “lies in how the critic seeks to use the term” (emphasis added). Genre study, when understood in this way, is the history of repeated attempts from academics, critics and institutions to impose order onto a chaotic, messy and fluctuating mass of terms that respects no authority – or at least, no *apparent* authority, and certainly not theirs. For all the critics and academics who profess that *Star Wars* (Lucas 1977) is better understood as a Western, the ordinary cinemagoer will probably continue to view it as a Science-Fiction movie. As film studies scholar Raphaëlle Moine puts it:

there can be no universal typology of genres, built on distinctions recognized by all, organized in stable categories and partitioning the landscape of cinema in definitive clear-cut groups of films. (Moine 2005, p. 20; freely translated)

In the bleak light of this look on genre, a few conclusions can be reached. Genre appears to be an imprecise and intuitive concept; it is impervious to rigorous classification and systematization; it denotes potentially very different phenomena across media or disciplines; and it is a multifaceted and multidimensional phenomenon. Those are common to all usages of the concept, and are about the only thing that all kinds of genres share, whether in literature, linguistics, or film studies: and they apply to video game genres as well. No amount of critical thinking can get us past these points to a grand, unified and stable genre categorization. If anything, my brief *exposé*, the different taxonomies I have shared, and Apperley's (2006) plea have all demonstrated that video games are perhaps the best at making salient the relativity of genre. But if video games can be seen as fully embodying the internal characteristics of genre, we could be tempted to apply onto them the conclusions reached by genre theory from other disciplines. More to the point of concern to us here, current genre theory has abandoned the idea of genre evolution in its strongest, biological sense ('things getting better'), and the only admission of the word nowadays is to describe 'the changing of things through time'. Is this a general property of the concept of genre, or only a localized, isolated phenomenon common to literary and film genres for instance but in which games differ? It could be easy to brandish the stick of theoretical imperialism in self-defense (Aarseth 2001), but as any *Civilization* (MicroProse 1991) player knows, blindly swinging at anything that approaches is generally a bad long-term strategy. I propose then to earnestly examine how and why genre theory has arrived to these conclusions regarding genre evolution, and then come back to game genres.

Part II. Genre History and Evolution

Against Biology

The earliest writings on the "nature", "kinds" or "species" of the "poetic art", which we would call today *literary genres*, were mostly concerned with evaluation and prescription: evaluation in determining which type of "poetry" was the best for the education of youth and inspiration of men, and prescription in telling poets what they should do and how to do it (for instance, the dogma of reciprocal appropriateness of style and substance). Things took quite a turn in the 20th century however due to one major influence: Darwinism. 1890 saw the publication of French theorist Ferdinand Brunetière's *Évolution des genres dans l'histoire de la littérature*, in which Charles Darwin's principles of natural selection are applied to the history of literature in order to explain its evolution. This biological model of a "survival of the fittest literature" is established as a new paradigm and can still be found, as I have pointed out at the beginning of this piece, for genre in the context of the video game. In literary theory, however, it has largely fallen out of fashion. The French literary theorist Jean-Marie Schaeffer offers some solid arguments to debunk this conception of genre in his book *Qu'est-ce qu'un genre littéraire?* ("What is a literary genre?"). The biological-evolutional model is simply refuted as a confusion of categories. While biological beings reproduce and are the primary cause (in the philosophical, Aristotelian sense)

of their offspring, texts and other works do not reproduce but *are* reproduced by human agents who act as external and secondary causes. Biological (natural) genre predetermines the characteristics of a species and individual, while literary (and other artificial) genres *are determined from* the work's characteristics, themselves determined by an author. In short, genre works the other way around: "Maupassant's *Une vie* does not contain a narrative structure because it belongs to the class of narratives, because it was born from this class, rather it belongs to this class because Maupassant decided to tell a story." (Schaeffer 1989, p. 73; freely translated)

What is the answer to the evolutionary model then? Late 20th century genre theory rejects the idea of genre evolution altogether and replaces it with nonteleological experimentation and variation. One of the most well-known authors of this shift is Hans Robert Jauss and his concept of horizon of expectation. In this statement from *Toward an Aesthetics of Reception*, he defines genre as a perpetually mutating range of productions, a playground in which writers try out new possibilities to surprise the reader until the experiment is stretched so far that it yields a new genre.

If one follows the fundamental rule of the historicization of the concept of form, and sees the history of literary genres as a temporal process of the continual founding and altering of horizons, then the metaphors of the courses of development, function, and decay can be replaced by the nonteleological concept of the playing out of a limited number of possibilities (Jauss 1982, p.94).

Genre does not "evolve" here, but simply changes or mutates; things are tried without any sense of progression towards anything. This has become the prevailing view through most, if not all, genre studies, whether literary or filmic. One needs only to look at a few of the section titles from Raphaëlle Moine's *Cinema Genre* for reference, such as "To put an end to the theory of generic evolution", or "The limits of historical determinism".

To enter the specific question of video game genre, it is worth quoting Rick Altman's own take on the inadequacy of the biological metaphor:

According to the Darwinian approach to evolution, the specificity of a new genus is guaranteed by its inviolability. That is, no genus is interfertile with another genus. Besides the lack of fertility between genera, the purity and thus the identity of the species is also guaranteed by the fact that previous life forms, once extinct, disappear from the world forever. Only in the multi-era imaginary world of a 'Jurassic Park' do the categories of a previous evolutionary state continue to exist. In the genre world, however, every day is Jurassic Park day. Not only are all genres interfertile, they may at any time be crossed with any genre that ever existed (Altman 2006, p. 70).

The freedom given to authors, filmmakers and game designers in choosing to mix whichever part of whichever genre they want without any physical or theoretical restrictions is a result of their indirect causality, *contra* biological genii and species. It implies a degree of free-form and non-linear mutations that is unavailable to regular models of biological evolution. And this observation also highlights the limits of commonality between literary and linguistic genre, as Alastair Fowler comically remarks:

writers are free to return to earlier conventional forms as no speaker of a natural language can. [...] One might hope for some success by reintroducing Gilgamesh epic conventions in a modern poem, but not by using Anglo-Norman to order a meal. (Fowler 1982, p. 49)

We have learned a few things from this brief overview of the idea of genre development in literature and film. We know that a cluster of works sharing common characteristics (culturally identified as a genre) do not mate once in a while and engender new works that bring the genre forward in an ultimate forward progression (like an early platformer such as *Super Mario Bros.* in which the screen never scrolls back, only forward); rather, new works appear somewhere near them because someone decided to make them as such. Since a new game coming out in 2009 might borrow an element or otherwise lean on some obscure game released in 1989 with limited success, there does not seem to be any proper 'evolution': genres don't die, they simply cease to be used for some period of time. We might say that they hibernate, ready to return when someone deems it appropriate to wake them from their cryogenic sleep. Though no FMV adventures are being created anymore (at least not on a significant scale), the ones from the 1990s are still viewed through the lenses of this generic label, and are available and ripe for plucking. The permanence and cycles of genres is evidenced by the current trend of retrogaming and, as an example, the release of *Mega Man 9* (Capcom 2008) that is constitutively identical to the NES games of yore.

Yet we should not accept the findings of genre theory from other media too hastily. If someone were to make an FMV adventure in 2009, it would not use grainy, 256-color video occupying only a fraction of the screen and running at 12 or 16 frames per second. Such a game would likely not require the user to flip through 5 or 6 CDs during gameplay, but rather fit all the data on a DVD. For all its old-schoolness, *Mega Man 9* still incorporates a save system instead of a password system. There seems to be an obvious degree of technological determinism in video games, if only by virtue of Moore's Law. And yet, ever greater technological prowess cannot be held as a necessary mark of generic evolution. A remake of an old game with updated graphics – or an FMV game with quality video – but no change to the gameplay whatsoever does not mark an evolution of the genre, only a general technical evolution on the level of media, exactly as a book in electronic form that we read on a portable digital device or on the internet does not constitute an evolution of a "genre". We can back down a level and look into the evolution of a genre from within, and how the individual works build and expand it.

Fiddler on the Genre; or, Variability is the Name of the Game

For a while, certain academic circles have turned a condescending eye on "genre films" and "genre literature", considering them as endless repetitions of the same-old, made to comfort audience expectations or as "mythic embodiments of the dominant ideology" (Grant 1988, xiii). Many genre theorists have reacted by showing in what ways genre could constitute a code of conventions capable of subversion, critical discourse, and much more. One of the most important contributions to the understanding of genre is the paradoxical pleasure of variability, as mentioned in Barry Keith Grant's introduction to the *Film Genre Reader*: "Stated simply, genre

movies are those commercial feature films which, through repetition and variation, tell familiar stories with familiar characters in familiar situations.” (Grant 1988, p. xi) Aside from the obvious presence of the word “variation”, Grant also adds a little further: “While it is true that genre movies tell familiar stories with familiar characters in familiar situations, it by no means follows that they do so in ways that are completely familiar.” (Grant 1986, p. xiii; see also Neale 2000, p.207-211) As Thomas J. Roberts elegantly put it, variation inside familiarity seems to be the name of the genre game:

readers sense the formal scheme as the norm that permits them to appreciate the figural variations. The writers [of genre fiction] are like the jazz musicians who give us a familiar melody at the opening of the piece so that we can understand the variations that follow. We do not listen for that melody, we listen for the variations. (Roberts 1990, p.166)

‘Variations on a theme’ certainly fits the prior discussion of literary genre theory: there is no evolution, only multiple experimentations. Where things get interesting, however, is when Roberts opposes this assessment in his discussion of science-fiction literature and the convention of the ‘body shield’. As he explains, Edgar Rice Burroughs introduced, in his 1912 novel *The Princess of Mars*, lizard-like aliens that carried heavy spears and used radium rifles reportedly accurate at 200 miles. The goal was to offer magic-like high technology with the rifles, and exciting hand-to-hand combat with the spears. The question then becomes why would the warriors “carry heavy spears if they already had rifles accurate at two hundred miles?” (Roberts 1990, p. 176), and the answer for readers was to shrug and solicit even more their suspension of disbelief.

Interestingly, Roberts (1990, p. 177) asserts that “Burroughs never did find a way to permit man-to-man combat inside high technology; and his successors spent thirty years in the search for a solution”, exemplifying with the old tricks of guns jamming up or running out of ammo at the most critical moments. The definitive answer came with the invention of the body shield, a personal field of protection around individuals that stops ballistics but not physical weapons. Roberts (1990, p. 180) notes that it “contributed to the genre the resolution of an internal anomaly that had defeated the best efforts of writers for at least thirty years”, and that readers familiar with science-fiction, when reading the 1940 A.E. van Vogt story “Weapon Shop” that introduces the body shield, “had the *Aha!* experience: at last someone had found a way to combine ray guns and sword play without embarrassing all the rest of us” (Roberts 1990, p. 180). From this example, he concludes that “Literary conventions are solutions and enablements. That body shield saved for technological adventure the image of the purposeful individual” (Roberts 1990, p. 180).

This example invites us to reconsider the previously rejected idea of genre evolution. While there seems to be no ‘evolution’ of literary genres on a macro-level (unless one is prepared to make the case that modern tragedy is a demonstrably superior form of antique tragedy, for instance), there is nonetheless an internal logic of innovation on a micro-level. Gérard Genette invoked the concept of *generic memory* that he did not so much explain as exemplify to argue for evolution:

the fact of *generic memory* (*Jerusalem Delivered* remembers the *Aeneid*, which remembers the *Odyssey*, which remembers the *Iliad*) does not incite only imitation, and thus stagnation, but also differentiation – one cannot evidently

repeat what one imitates –, and thus minimal evolution (Genette 1986, p.154; freely translated).

The model of evolution here is only *metaphorically* biological. To return to our example, there is no primary internal cause that meant the body shield was inevitably going to appear; something else could have been found to solve the guns & swordplay problem. We can understand the internal evolution of a genre as a series of problem-solving proposals. The generic memory ensures that once the body shield has appeared and has been recognized as a viable solution to the problem, future writers will either use it (like Frank Herbert in *Dune*, 1965) or develop their own take on it (Roberts notes the *Star Wars* lightsaber's ability to repel enemy fire, serving the function of the body shield all the while enabling a mechanic of duelling). Once the problem has been addressed, it cannot simply be brushed under the rug, as science-fiction readers now have a new horizon of expectations. Merely dismissing an incoherence of this type will prove difficult now that they've known better, so to speak. To bring back Jauss' prior "nonteleological concept of the playing out of a limited number of possibilities", there is no denying that creators try multiple different solutions to a problem; but there is no denying either that some of these solutions are viewed as *better* than others, hence why we have seen many works of science-fiction using the idea of the body shield (or some derivative idea of the principle) while the "out of ammo!" convention seems contrived or artificial.

The idea that evolution in a genre is problem-solving does not imply that creators decide to "do a genre work" as some noble endeavor to "improve" a genre; therefore, we need to look at the conditions and reasons for the production of genre works. To funnel the discussion towards the video game, let us shift our focus on another media that shares a similar industrial production template with the video game: cinema. Film studies scholars Rick Altman (2006, pp.117-122) and Raphaëlle Moine (2005, pp.60-66) both speak of a dual principle at work in film production, a dialectical opposition between innovation and standardization. It is generally understood that studios produce genre films for two reasons: first, they allow the reusing of costumes, sets and props which the studio invested sometimes considerable money in making, and their production thus is more streamlined; second, they allow them to expect some portion of audience loyalty, and so minimize the risks of investment. This has some degree of analogy in video game production insofar as game developers can create custom engines tailored for specific gameplay types and use them for multiple projects. However, this only applies to films and games consciously made according to genre. Drawing on the work of Noël Burch, Raphaëlle Moine explains that before 1908, there was no concept of artistic copyright in cinema, and as a consequence a widespread practice of copying entire films in their substance and details was in place. As she writes, "this practice contributes in creating genre effects and generic corpuses which cannot be compared to the production of genre films in classical cinema." (Moine 2005, p.165; freely translated) We are striking here a vital point in respect to video game development.

Part III. Game Genre and Innovation

Imitation and Evolution

When Nolan Bushnell and Atari unleashed the pixilated fascination of *Pong* on the unsuspecting American public in 1972, scores of “jackals” soon flooded the market in a gold-rush effect (see Kent 2001, pp. 60-62). Were they producing a genre game to reduce the costs and risks of original, innovative gameplay, or simply producing an imitation product hoping to make a quick buck? As the reader will have noticed, this is a rhetorical question, as there was in effect no “genre” to speak of at the time. This highlights a crucial tradition in game production: the imitation of a model game, either as a “clone” of a famous game for cash-in opportunism or as a genuine attempt at improving a formula. Journalist Steve Kent probably nailed it best: “Bushnell had entered into an industry in which success spawned imitation” (2001, p. 60). This tension is not limited to games nor industrial media, but can be found across all artistic traditions. Art historian E.H. Gombrich’s theory of schema and revision states that an artist creating an artwork also sets in place a schema, which the successive artists influenced by him can either replicate or correct/revise with alterations that they judge ‘better’. In a quote now made famous, “The artist cannot start from scratch but he can criticize his forerunners” (Gombrich 1960/77, p.272). It could be said, tongue-in-cheek, that Rick Altman’s sixth hypothesis on the origin of film genres replicates Gombrich’s *schema*: “Genres begin as reading positions established by studio personnel acting as critics, and expressed through film-making conceived as an act of applied criticism.” (Altman 20006, p.44)

Video game production has many different traditions of innovation and variation from which to draw. Games can be created according to a specific genre to lessen the financial risks, as Matthieu Letouneux explains (in *Genvo*, p.39-40); they can also be modeled specifically after a prior game, either as a “clone” (by replicating the schema) or as an “enhanced” version (by revising the schema). The production logic underlying these different traditions is that of problem-solving criticism. An original and/or successful game is taken up and examined by its makers (or their peers at a competing company, or by players who are inspired to undertake game development, etc.) who identify a number of perceived problems, weaknesses or perfectible areas; they then set out to produce a game that will address these features – or lack thereof. I know of no better example to illustrate this mechanic than the hordes of so-called “*Doom* clones” that swarmed the video game industry. Titles such as *Gloom*, *Marathon*, *Blood*, *Chex Quest* (Digital Café, 1996) – a game specifically made as a prize to be found in Chex cereal boxes – and *Strife* were all decried by many as imitations with little to no innovation, hence popularizing the “doom clone” moniker. The following graph shows the number of occurrences for the phrases “doom clone” and “first-person shooter” in Usenet posts following the release of *Doom*.

Usenet posts per month containing the phrase "doom clone", vs "first person shooter"

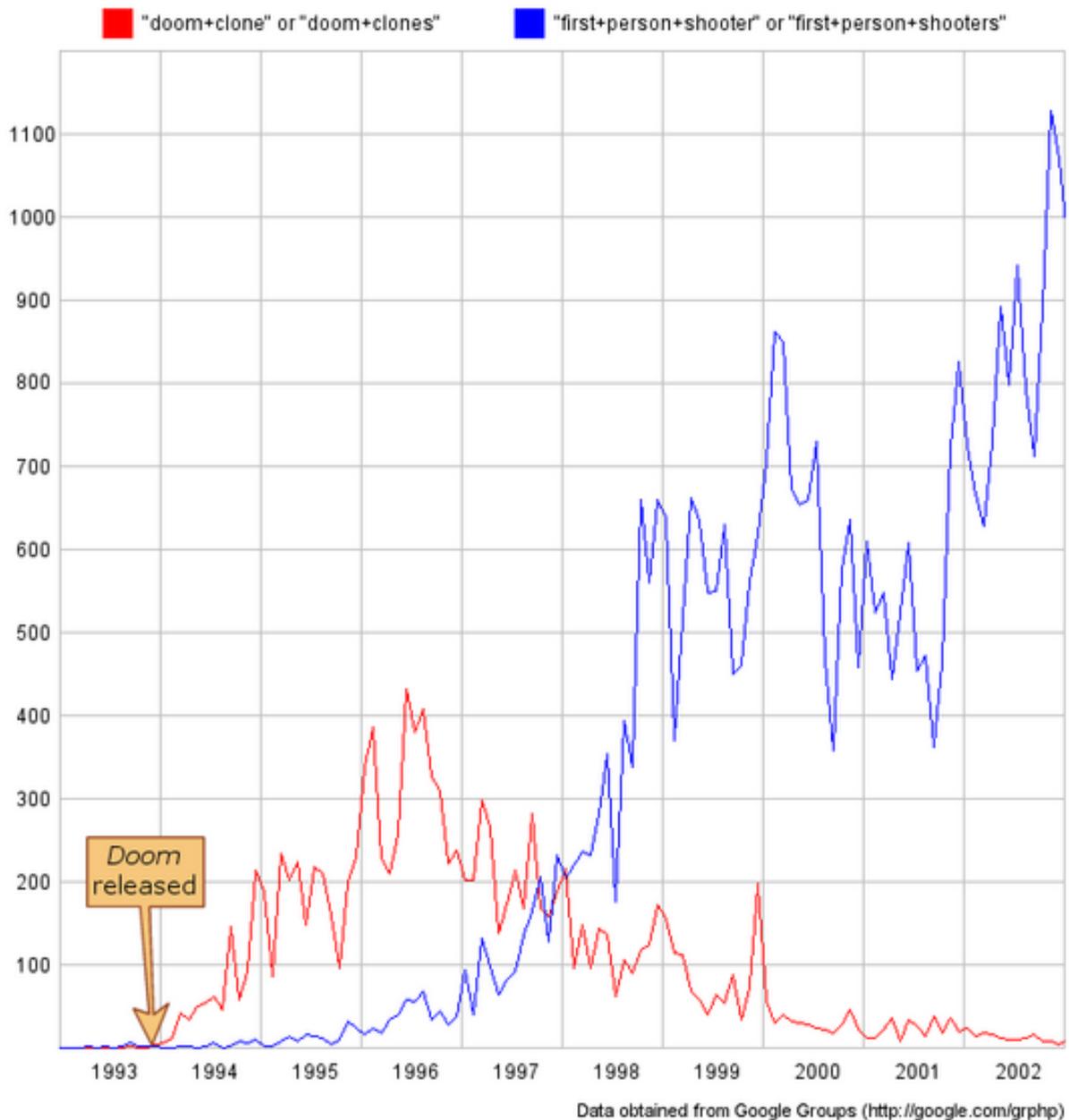


Fig. 4: The birth of the 'First-Person Shooter' label in Usenet discussion.

(Source: [http://en.wikipedia.org/wiki/Doom_\(video_game\)](http://en.wikipedia.org/wiki/Doom_(video_game)))

As can be seen, the birth of a genre in this case (and many others) hinges on a popular game that defined a new area of possibility. The title was imitated in significant numbers until, sometime after this "genre effect" (as Moine coined it for early cinema), a proper name for the genre appeared and gained acceptance. This is why genre always is "a postdated phenomenon". (Moine 2005, p.122) As we have seen, for a genre to exist there cannot be only repetition, but variation. Accordingly, while some of the so-called "Doom clones" were indeed little more than derivative

products with a new skin but the same game underneath, many at least tried a few things. In these cases, the game creators went for revision instead of replication. We can further characterize these revisions as either progressive or revolutionary, as Laurent Creton said for film production:

The processes of innovation can be classified according to two modalities: rupture or evolution. As rupture, innovation is mainly represented in the dimension of its results, generally spectacular. As evolution, the process is brought to the front and it is the adaptations, ameliorations, and recombinations that are underlined (Creton 2005, p.45; freely translated).

As an exercise, one could easily apply these notions in writing a history of the Shooter genre. Such a history could start with *Space Invaders* (Taito 1978), while recognizing its forerunners *Spacewar!* (Steve Russell et al. 1962) and *Computer Space* (Nutting Associates 1971). It would then recognize clones and derivatives that make up its evolution, probably *Galaxian* (Namco, 1979), *Galaga* (Namco 1981) and *Tempest* (Atari 1980) as a case of stretching the boundary of the fixed screen with a 3D perspective. A point of rupture would be identified with *Defender* (William Electronics 1980) that spawns the Scrolling Shooter, and from there a similar onslaught of adaptations, ameliorations and recombinations such as *Xevious* (Namco 1982) and *Gradius* (Konami 1985), until a new spectacular revolution appears with *Wolfenstein 3D* (id Software 1992) and the First-Person Shooter takes over. This is in fact something Chris Bateman says in "The Evolution of Games": "the genre exemplified by Taito's 1978 *Space Invaders* (albeit not the first shooter)", he writes, "by the 1990's had evolved into the first person shooter" (Bateman 2003). While it is true that First-Person Shooters did indeed push the 2D Shooters to the wayside, I would challenge the idea that this constitutes two steps, or two evolutionary periods, of the same genre. I will argue that Static or Fixed Shooters constitute a first period of a genre that later evolved with the 2D Scrolling Shooter, but that 3D First-Person Shooters are part of a wholly different generic tradition.

Our current understanding of genre and innovation, inherited from aesthetic disciplines, is not sufficient to correctly parse out this problem. As Ian Bogost put it in his piece "Windows and Mirror's Edge" (Bogost 2008), video games are both an artistic, cultural, aesthetic and expressive object, and a functional and technological construct. While there is significant overlap between the two and it can sometimes be difficult to distinguish them (see Juul 2009), we usually have some pretty clear cases at both ends of the spectrum: a game's narrative and plot is taken to be situated on the aesthetic level, while corrupted save files or proper button-mapping belongs on the layer of functionality. But there are multiple problematic cases popping up in the gray zone, especially concerning game design, which can be seen, like architecture, as one of the most acute blending of aesthetics and functionality. Accordingly, Thomas Apperley adds a tremendously strong specification for innovation in video games: "The expectation is that the stability of genre will be tempered by innovation; this innovation may be technical, not necessarily stylistic" (Apperley 2006, p.9). We will then focus on the case at hand: how should we view the passage from 2D Scrolling Shooters to 3D First-Person Shooters? Is this a technical improvement, as Bateman claims, or an aesthetic switch?

Case Study: The Shooter Genres

The reason for seeing a connection between Shoot'Em Ups (whether fixed-screen or side-scrolling) and First-Person Shooters is based on the common action pattern of 'shooting'. Yet the vast majority of First-Person Shooters contain a healthy share of melee fighting, be it with a knife in *Wolfenstein 3D*, a chainsaw in *Doom*, kicking in *Duke Nukem 3D* (3D Realms 1996), a staff in *Heretic* (Raven Software 1994) or the famed *Half-Life* crowbar. In fact, many First-Person Shooters go as far as providing specialized melee characters, classes or character development skills to choose from. In *Hexen: Beyond Heretic* (Raven Software 1995), the player can play as a Fighter who mostly uses swords and other close-range weapons; in *Aliens versus Predator* (Rebellion Developments 1999), playing as an Alien leaves one with only claws, bite and a tail-whip to attack; and in *Deus Ex* (Ion Storm 2000) (admittedly, not a run-of-the-mill FPS but a complex RPG/FPS hybrid), one can opt for nano augmentations that increase the potency of melee combat instead of shooting. I personally bludgeoned my way through *BioShock* (2K Boston/2K Australia 2007) by similarly investing my character with plasmids that made him the ultimate wrench-swinging machine. In all of these cases, a secondary frame is inserted so that the game's dominant activity consists not in aiming and shooting a distant target, but in moving an avatar near an enemy and keeping it up front and close to successfully deliver blow after blow.

Melee fighting apart, this is to say nothing of many First-Person Shooters in which there are sequences where the player must run and escape, or otherwise perform non-combat actions across space instead of shooting everything in sight. Järvinen (2002) cites *Thief: The Dark Project* (Looking Glass Studios 1998) as an example of a game "substituting the generic "seek conflict" convention with "avoid conflict". *Quake* (id Software 1996), an otherwise emblematic and generic First-Person Shooter, takes this to its extreme by having the final boss, Shub-Niggurath, completely impervious to weapon fire. The player must monitor the movement of a small ball that floats around the room and enter a teleporter while the ball is floating through the boss. The teleporter sends him at the ball's location, but as the player is now occupying the same space as Shub-Niggurath, she is instantly killed (a practice called *telefragging*). Here, the mastery of space, body position and movement trump the aiming and shooting mechanic.

All in all, it could be said that First-Person Shooters are not so much about shooting than about fighting as someone directly in the field. In the broader schemas "fighting", "conquering", "exploring" or "escaping", to name a few classically exploited in the FPS, is contained the "shooting" action, but a myriad others as well. If shooting was the be-all, end-all of the First-Person Shooter, we would trace its line of ancestry not among the 2D Shooter, but rather with 'light gun' Shooting Gallery games like *Wild Gunman* (Nintendo 1984) and *Duck Hunt* (Nintendo 1984) instead of the 2D shooters. The fact that these genres rely on players using a gun-like controller should be enough of an indication that they are 100% focused on shooting. Conversely, there are very little gun-controlled First-Person Shooters on the market today; and the fact that the Nintendo Wii, despite its motion detection controller, is so slow in picking up quality first-person shooter titles that would appeal to the "core gamer" demographics which Nintendo so desperately needs, should be the last straw in making us realize the complex, composite nature of the FPS genre. Tight shooting mechanics are of no use in a FPS if players have a hard time moving around,

exploring, or strafing. Far from mindless itchy-fingered shooters – as their detractors like to portray them –, FPS players are involved in a multitude of actions, of which shooting does not necessarily hold the lion's share.

A last argument against the conception that 2d Scrolling Shooters and First-Person Shooters are two evolutionary steps of a same genre is that the implications of the first-person perspective do not necessarily have a correlate among Scrolling Shooters. The FPS requires orienteering through the mental representation of space and positioning within the fictional world, while the space in a Scrolling Shooter is displayed to the player in its entirety (even more so in a Fixed-Screen Shooter). Enemies in a FPS fire at the player from outside his own field of view, while in a Scrolling Shooter they start existing (they are *spawned*) only when they enter the frame. In a FPS the player must explore the space, backtrack, find keys and open doors, push switches, stage assaults and identify suitable cover, etc.; in a Scrolling Shooter, the screen inexorably carries him forward, and the player has to meet the assaults and ambushes of his enemies head-on. These points suffice to show some of the differences between 2D Scrolling Shooters and 3D First-Person Shooters. It is not a given that these genres are linked in straightforward evolution. To identify where the FPS came from, it is necessary to tackle Bateman's affirmation that the breakthrough of *Wolfenstein 3D*, and with it that of the First-Person Shooter, is technological in nature.

Certainly, *Wolfenstein 3D* had some innovative technology with its ray casting technique.⁷ But First-Person Shooters had existed before – long before, as *Maze War* was there in 1974. In anticipation, I suppose one could argue that *Maze War* was not a proper shooter because the player did not actually aim, since pressing the spacebar would send a bullet and eliminate any opponent occupying the same space, thus making the game closer to a maze chase. We could debate for quite a long time, but I would instead simply cite another case of "prior art" with a 1988 game titled *Hostages: Rescue Mission* (Infogrames 1988). My only experience with it is through the NES port titled *Rescue: The Embassy Mission* (Kemco 1989). This game is divided into many parts with differing gameplay, and the last part involves navigating through an embassy hunting down terrorists and shooting them. As with *Maze War*, it is step-based 3D, in which the player's character can advance one square forward or turn 90 degrees either side. However when an enemy is spotted in the same square, the player can hold the A button and enter a continuous firing mode; the directional pad of the NES controller now controls the aim of his rifle and he must shoot at the enemy occupying a fraction of this space. In addition, the enemies exist outside the frame delimited by the player's viewpoint, wander around the corridors, and can enter the frame to surprise the player who might not have enough time to react (while they do not shoot from off-frame, that may have more to do with the difficulty level that would result from the one-shot-kill nature of the game, a feature intended to provide maximum realism in line with the game's narrative).

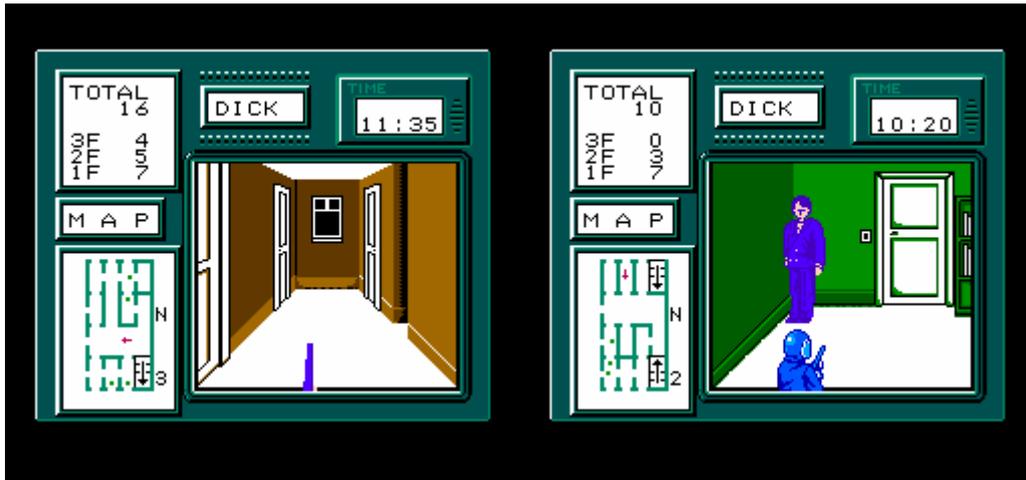


Fig. 5: Seamless alternating between First- and Third-Person viewpoint in *Rescue: The Embassy Mission*

(Source: <http://www.mobygames.com/game/nes/hostage-rescue-mission>)

As the example of *Wolfenstein 3D* has made clear, there is some degree of technological determinism in video games. Step-based 3D shooters had a number of hurdles to overcome: enemies “popping up” in the frame could conceivably irritate gamers; dodging bullets was an unreasonable proposition; aiming and moving at the same time would prove infeasible; and so on. These technological restrictions no doubt shied many away from developing an action game with first-person perspective, until the problems were solved with the free movement allowed by the ray casting technique and then fully polygonal 3D levels. However, it is crucial to recognize that the technology here served as a facilitator for gameplay ideas that were *already existing before*. In this respect, this is very much like the development of the body shield in Science-Fiction literature, with the obvious difference that the first is a technological expansion of possibilities for interaction, while the second is a plot device for aesthetic experiences.

A word of caution, though: while the idea that game development can be seen as applied criticism, with each new game correcting the perceived flaws of the previous model-game (or the previous generation of the genre), means there is a notion of proper evolution internal to a genre, it by no means implies that evolution is linear. Indeed, it appears that mobilizing new features to address past problems often leads directly to new problems – a startling metaphor for the very process of game design by reiteration and testing, if I may add in passing. In the case of the FPS, one new problem that was introduced was with being shot at from off-frame (from enemies the player was not directly facing). In a 2D shooter, the enemy firing would be on screen, or if he wasn’t, then at least the stream of bullets was visible before hitting the player, so that even if he took a bullet, he could react and not take the rest of the burst. By contrast, in *Wolfenstein 3D* and *Doom*, taking a hit resulted in the screen flashing red. Players were routinely maimed to critical levels or killed by enemies that caught them from behind; while the screen was flashing red, they had no way of knowing where the blows came from, and turning around often proved fatally long. Later

games added an arrow that appears on-screen when the player is hit, pointing at the direction from where the attack came.

Beyond Mechanics: Genre Aesthetics

Let us now return to my example of *Rescue: The Embassy Mission* in order to make a final point. As I presented the game, all the elements of first-person shooter gameplay were present. Gamers that know the title, however, may remember that the game actually switches back-and-forth between a proper first-person perspective (when the player's avatar is in a hallway) and what could best be described as an over-the-shoulder third-person camera view similar to *Resident Evil 4* (Capcom 2005), *Gears of War* (Epic Games 2006) or *Mass Effect* (BioWare 2007) when in a room. Elsewhere, I have argued through an analysis of *Gears of War* that an over-the-shoulder camera can share a primal phenomenological quality with an actual first-person view in framing subjective vision and favoring player-avatar identification, so that the splitting of both into neatly separate categories is in fact detrimental to a broader understanding of the gameplay experience⁸. In short, the camera in *Gears of War* performs a number of operations that either express the subjectivity of the player's avatar living the action, or make the game behave like a first-person shooter. During a *roadie run* it follows the crouching character from a lower angle, restraining the player's vision; and when chainsawing an enemy, blood splatters the (fictional) camera lenses violently. Both of these processes attempt to approximate the avatar's experience by breaking the usual voyeuristic safety of the player. More importantly, the strong zoom it performs when the player is aiming brings it to about the level of a first-person perspective.

In actual experience, we do not usually give much importance to whether the camera is first- or third-person, or rather we do not give it as much importance as the gut feeling of the actions and general gameplay. There *is* such a thing as "third-person shooters that play like first-person shooters", as evidenced by Natalie M. Ward's abstract for her game review of *Mass Effect* that reads: "A brief review of Bioware's successful sci-fi game *Mass Effect*, a combination first person shooter and role playing game" (Ward 2008). We know that *Mass Effect* is not a First- but a Third-Person Shooter, and we know that Ward has played it and knows what she is talking about since she is reviewing it. But she nevertheless labels it as a First-Person Shooter, perhaps as a typo and/or as a result of the predominance of the FPS genre in this day and age of gaming. That does not explain, however, why Thomas Apperley makes the same "error" (or is it one?) in his entry for "Genre Studies" in the appendix to the *Video Game Theory Reader 2*: "*Mass Effect*, for example, is a role-playing game that draws on elements from the first-person shooter genre" (Apperley, 2009, p.354). To bring back the old biological metaphor, sometimes it doesn't look like a duck, but still walks and talks like one.

We have seen that the multiple points of difference between 2D scrolling shooters and 3D first-person shooters means that we should consider them as two separate genres – or rather, strands of genres – instead of two epochs of a same genre. A more proper line of ancestry for the FPS would start with the First-Person games I listed, while the 2D Shooters would form another branch moving from fixed-screen to scrolling shooters. We can speak of genre evolution, and of generations of game

genres, with each new release fixing (or at least attempting to fix) lacks from its predecessors and cementing progressive technical ameliorations. Interactive genres are correctly identified as primordial in video games; however, we must be careful not to equate these genres with their technical implementation, for a third-person shooter can mobilize its virtual camera in a way that makes it very similar to a first-person shooter. This is because the genre of a game is tied not to an isolated, abstracted checklist of features, but to the phenomenological, pragmatic deployment of actions through the gameplay experience. Gameplay is partly functional and partly aesthetic. Video game genre is rooted in game aesthetics, not game mechanics. To apply my linguistic musings on the impreciseness of the word and concept of *genre*, we could describe a First-Person Shooter as “a game in which you sort of shoot at stuff from a kind of view as if you were there in person”. *Shooting* can be actually shooting a gun as well as taking a picture with a camera (as in *Yoshi's Safari* (Nintendo 1993) or *Pokémon Snap* (Nintendo 1999); but think of *BioShock* where the player has to do both!). As for *First-Person*, just as the function of the body shield from Science-Fiction was transposed into the *Star Wars* lightsaber, so can the function of a first-person perspective, (“facilitate an active subject position that enables and facilitates the gamic apparatus” (Galloway 2006, p.69)) find solace in third-person view.

Video game genres embody what Thomas Schatz identified film genres to be: a “*range of expression* for filmmakers and a *range of experience* for viewers” (Schatz 1981, p.22). The convergence of the production and reception sides of the video game industry hinges on genre conventions, and permits aesthetic appreciation from the players literate in these conventions (the “variations on a theme” of which Roberts spoke earlier) by streamlining the functional aspects of a particular game. This highlights the main function of genre: communication. Thanks to genre conventions, we can jump into new 3D Shooters and look around, walk, crouch, reload our gun, change weapons, and so on, much more easily than the very first time we laid eyes on one. I can't resist including here a quote from webcomic *Penny Arcade's* Tycho: “Games that come to us gibbering in strange tongues often don't get far - we need some basis for understanding them.” (source: <http://www.penny-arcade.com/2008/10/6/>) Game mechanics are not an end in themselves, but constitute the means to achieve an end, as Katie Salen and Eric Zimmerman pointed out: “The goal of successful game design is meaningful play, but play is something that emerges from the functioning of the rules. As a game designer, you can never directly design play. You can only design the rules that give rise to it. Game designers create experience, but only indirectly.” (Salen & Zimmerman 2004, p.168) From the production side of the business, then, video game genre can be understood as *the codified usage of particular mechanics and game design patterns to express a range of intended play-experiences*. In this respect, charting the history of a video game genre requires one to go beyond the “laundry list” of mechanics (“First-person perspective...check. Shooting...check”), and investigate the history of the general play-experience of which the particular mechanics are only one possible materialization. What I have done with the FPS, though only an introduction to its study, needs to be done for multiple other genres, and may shed further light on the specificity of video games and their position among the larger landscape of games and aesthetic practices.

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Notes

- ¹ I use the term “video game” to refer to the whole of computer-processed, visually represented games, which can then further be divided in console games and computer games (a specific subset for personal computers). Others may use “digital games” as a synonym.
- ² See Carroll, Noël (1988). *Mystifying Movies: Fads and Fallacies in Contemporary Film Theory*. New York: Columbia University Press; and Bordwell, David & Noël Carroll (eds.) (1996). *Post-Theory: Reconstructing Film Studies*. Madison: University of Wisconsin Press.
- ³ (Source: <http://apps.metacritic.com//search/games.jsp>)
- ⁴ The email reply this author received on 01/08/07 reads: "Those genres are simply texts fields. I label them based on my own personal understanding of what the game is. It's less-than-scientific, but I think I'm closer than just about anyone in the industry in accurately labelling the games. I generally start with the press release."
- ⁵ I use “ludological line of thinking” instead of “ludologists” because, as should be obvious, ludology did not spring out of a cereal box; there have been “ludological” gamers at least since the NES days (and most probably earlier, but I wasn’t there to see them). Most gamers have, once or multiple times, had an argument with someone touting the quality of a particular game’s graphics, and quipped that “graphics don’t matter”, meaning “the quality of graphics isn’t sufficient to salvage the game’s unappealing gameplay”. Some gamers have however pushed the idea to its logical extreme and made it into a dogma, claiming that “graphics *never* matter, only gameplay”. Nowadays, we have the internet to watch them, often commenting on kotaku.com, gamefaqs.com, or other similar gaming hubs. As such, I see ludology (in the context of the narratology/ludology debate) not as a particular school of Copenhagen theorists, but first and foremost as a natural philosophical and aesthetic position that has later found an outlet in academic thinking.
- ⁶ More on the differing criteria used by pre-modern thinkers would take too much space for our needs here; we can at least point out that from Aristotle to Romanticism, some commonly used criteria included the moral quality of the characters (higher/lower/equal), the way of expressing the events

(telling/showing/both), the nature of the events (fictional/non-fictional), and the goal of the text (aesthetic enjoyment/philosophical or natural teaching).

- 7 From Wikipedia's Ray Casting entry: "The world in *Wolfenstein 3-D* is built from a square based grid of uniform height walls meeting solid coloured floors and ceilings. In order to draw the world, a single ray is traced for every column of screen pixels and a vertical slice of wall texture is selected and scaled according to where in the world the ray hits a wall and how far it travels before doing so." (Source: http://en.wikipedia.org/wiki/Ray_casting)
- 8 This was presented at the 2008 ACFAS conference "Le jeu vidéo: une expérience multidimensionnelle" in Québec City; it should appear in a future publication by this author.