

The Key Features of Persuasive Games: A Model and Case Analysis

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Digital games are increasingly being recognized as more than entertainment media by policy makers, the industry, and idealistic developers. They are claimed to be able to alter players' worldviews and change the way they think (Connolly, Boyle, MacArthur, Hainey, & Boyle, 2012). This view has been advocated strongly by the Games for Change platform that aims to 'catalyze social impact through digital games' ("Games for Change," n.d.). Some researchers believe games influence players on an abstract level by, for example, making players feel empowered and teaching them the virtues of confidence and persistence (Granic, Lobel, & Engels, 2013; McGonigal, 2011; Neys, Jansz, & Tan, 2014). Others have theorized the ability for games to promote societal change by focusing on specific knowledge, skills, and attitudes in players, for instance by foregrounding the game's rhetorical potential (Bogost, 2007). Such games are tailor-made to serve a particular purpose, such as teaching math, promoting healthy diets, or considering humanitarian crises in the Global South. These games are generally labelled as 'serious games', with subdivisions as educational games, advertising games, and health games, among others.

This chapter will discuss *persuasive games* as a subset of serious games. We have embedded our definition of persuasive games in current theorizing about persuasion (O'Keefe, 2002), defining them as serious games made with the primary intention of changing or reinforcing specific attitudes (O'Keefe, 2002), where an attitude is defined as "a learned, global evaluation of an object (person, place or issue)" (Perloff, 2014, p. 71). Although many games

have this intention, we looked at games that place this intention front and center by being free to play. The present chapter aims to deepen our insight into the nature and possible impact of persuasive games by analyzing several existing games that are united in their intentions to change or reinforce attitudes. This investigation was aimed at answering the following research question: How are persuasive games equipped to persuade their players and maximize their impact?

Because the research field focusing particularly on persuasive games is nascent, most previous research cited a handful of examples of games that were made to persuade, like *Darfur is Dying* (Cohen, 2014; Peng, Lee, & Heeter, 2010), *Food Force* (Raessens, 2015), *PeaceMaker* (Alhabash & Wise, 2012; Neys & Jansz, 2010) and *September 12th* (Bogost, 2007). Given the dynamic socio-political context these games are published in, we find it necessary to provide the community of game researchers with a broader set of contemporary examples of how these games aim to persuade players. However, because of the variety in the themes, styles, and formats of persuasive games, it is impossible to represent all forms of this genre in one study. Therefore we discuss in detail a set of 11 games that are playable online at the time of writing to serve as exemplary cases. Each case shows in its own way how a game can convey certain messages and how the message is translated into the game's operations. The focus of the current study is on manifest game content. By playing these games, we analyzed them to determine how the persuasive elements emerged. This means that we did not study the games' actual impacts on their players. In sum, this chapter investigates a set of 11 exemplar cases of contemporary

persuasive games to get a better understanding of the elements that game developers employ to persuade players.

A conceptual model to analyze persuasive properties

Previous work on persuasive elements in games focused on games as a consumable product that delivers a rhetoric embedded in the game's systems and rules (Bogost, 2007). This proceduralist view posits that games offer a unique opportunity to engage with a message through their interactive nature, proposing that developers and researchers interested in game rhetoric focus on the systems underpinning this interactivity. As our analysis is concerned with the dynamics of game design we needed to go beyond procedural rhetoric to a more holistic view of persuasive elements. De la Hera's (2015) conceptual model (displayed in figure 1) describes many different ways to persuade players of persuasive games, combining methods of persuasion unique to games with those that could also be employed in different media. Moreover, games are experiences that not only allow for interaction but also interact with players to create a context of play. The conceptual model of persuasive dimensions distinguishes possible persuasive properties or features across three levels: signs, systems and contexts (Figure 1). Signs (the inner ring of the figure) refers to the visual, auditory, linguistic and tactile stimuli, incorporating all the information that reaches the players across different sensory modalities. Next, in the figure's middle ring, the system-level persuasive strategies establish meaningful ties between the signs and are divided into narrative, procedural and cinematic persuasion. These dimensions cover the way a game's interplay of signs and structure can create a persuasive argument. For example, successions of linguistic and visual elements constitute a narrative of events that offers a

different message than the signs could have offered independently. The third level describes how games could effect change through the social, tactical, sensorial and affective contexts of play (displayed on the figure's outer ring). These contexts focus on how the players experience the game. Though browser-based persuasive games are experienced through endless combinations of players and social environments that all influence the play session, this level of persuasive dimensions refers to what the game could possibly stir up in players under ideal circumstances (for example, when users are emotionally and attentively engaged and make optimal use of all of the games' affordances). Taken together, these eleven dimensions describe the different ways a game can attempt to persuade players. In practice, games of course employ several methods simultaneously. The current study applies this model of persuasive dimensions (originally posited by De la Hera, 2015) to the exemplar cases of browser-based persuasive games to determine which dimensions are used to effect the persuasive message and to what degree the games' arguments rely on each of these dimensions.

[INSERT FIGURE 1 ABOUT HERE]

Method

Selection

A set of criteria determined our selection of persuasive games: First of all, the games had to appear to primarily argue for a certain topic or stance in an effort to persuade players to change

or reinforce their attitudes towards a particular subject. For example, the game *Darfur is Dying* was designed to convince players that the situation in Sudan was untenable to motivate them to act. Secondly, the games needed to be freely available online and in English. Games related to marketing efforts for commercial products or brands were excluded. Different methods were used in our online search. To identify the games, we used a wide range of search terms on Google, including persuasive games, political games, health games, news games, impact games, or games for change¹. Forty-three persuasive games were found this way. This list was then compared to three online databases of serious games. These were the Health Games Research website (<http://www.healthgamesresearch.org/db>), the MIT Game Lab overview of purposeful games for social change (<http://purposefulgames.info/>), the Games for Change website (<http://www.gamesforchange.org/>), and the listing by the Center for Games and Impact (<http://gamesandimpact.org/>). After removing overlap, 66 unique games remained. Next, these games were played (to completion, where applicable) by the primary author. During these explorative play sessions, the styles of gameplay, themes and topics were noted, and an inference was made as to the persuasive message the game intended to convey. From the 66 games that fit the definition, 11 were selected as exemplar cases for in-depth analysis. Our selection was based

¹ The preliminary overview of persuasive games generated by our intern Clarissa Spiekerman in the first half of 2014 enabled us to fine tune the selection for the analysis in this chapter.

on two criteria. The first was concerned with the developers. Care was taken to select games from different game-designers or institutions commissioning the game (organizations, single authors, activist groups) to represent the different ways in which such games are made. The second criterion was diversity. We chose games that were as different as possible while still sharing key elements. By focusing on shared elements, we tried to gain insight into how similar topics can be approached in different ways as well as how similar design choices can support games that proffer different messages. The application of these criteria resulted in a meaningful set of 11 games which are listed in Table 1.

The games spanned three broad themes. The first was poverty and hardship. These games addressed poverty in different situations in an effort to promote empathy for people who are worse off, stir players towards action, or inform them about how to handle this kind of life. Games in this category included *Survive125*, *Poverty Is Not a Game*, *Ayiti: The Cost of Life*, and *My Cotton Picking Life*.

The second theme was about lived experiences and suffering from disorders. Though these are two different things, these games were grouped because they were all deeply personal experiences. These games wanted to let players experience life in a certain situation, either for its own sake or to promote action and included *Depression Quest*, *Power and Control*, *Dys4ia*, and *Auti-Sim*.

The third theme included games that dealt with the topic of violence and politics. While these games usually included violent content, they strayed from entertainment games in that all

of them carried messages about the consequences and futility of violent acts. This category included *September 12th*, *The Best Amendment*, and *Endgame: Syria*.

It should be noted that these three themes do not represent the breadth of topics that are currently being explored by developers of persuasive/serious/games for change. For example, there are games about animal abuse (e.g. PETA, n.d.), energy conservation (e.g. Bang, Torstensson, & Katzeff, 2006), and smoking cessation (e.g. Deleon, 2011), among many others. It is outside the scope of this chapter to provide a full overview of the entire catalogue of persuasive games. However, by including games that fit within these three themes, we aim to draw meaningful comparisons between the persuasive mechanisms in these games.

Analysis

After describing the games, they were analyzed for their persuasive elements using the model by De la Hera (2015) and subsequently compared with the other game(s) in each of the three themes. The emphases games place on each of the 11 persuasive dimensions (De la Hera, 2015) were coded by one researcher, distinguishing different levels and kinds of emphasis for each dimension.

Results

The analyses are divided in three different themes. Table 1 contains an overview of how the games in this study attempted to persuade their players by noting to what degree each of the 11 persuasive dimensions of the model by De la Hera (2015) are employed in each game.

The games' persuasive emphases were divided into strong, nominal or no emphasis. In some instances, the message of the game as a whole seemed to be contradicted by an individual dimension, in which case the emphasis was marked as conflicted. Finally, some games employed signs, systems or contextual dimensions to support the other elements, rather than to bring across the game's message. In these cases, the emphasis was marked as supportive even if a dimension would not be persuasive by itself.

[INSERT TABLE 1 ABOUT HERE]

The following sections present the three themes we used to label the different games. Each game is first briefly described and next compared to the other games within the theme with respect to their persuasive intent. Overarching analyses are shared in the conclusion and discussion section.

Poverty and Hardship

Four persuasive games were found that dealt with the subject of poverty and hardship. These games are *Survive125* (Live58, 2014), *Poverty Is Not a Game* (iMinds, 2010), *Ayiti: The Cost of Life* (Global Kids, 2006), and *My Cotton Picking Life* (Rawlings, 2012b).

Survive125 is a short text-based narrative game where players have to survive as a working single mother in India for 30 days by making decisions about family and health matters. The presentation is minimalist, as it only shows players how their actions affect their health and available money, though the actions do result in small snippets of text about their consequences.

Ayiti: The Cost of Life (Ayiti) describes a similar situation as it is about a family living in poverty in Haiti. In this strategy game, players control the actions of a family of five, determining the family members' access to education, work, health care, and rest. Few players will make it to the end of a 20-minute session (spanning 4 in-game years), as family members often fall ill and die in their efforts to keep their heads above water.

Poverty Is Not a Game (PING) is a 3D roleplaying game about individual poverty wherein players guide a recently poverty-stricken teen boy or girl through the process of finding a job, getting education, and maintaining a roof over his or her head in a big Belgian city. As one storyline takes around 45 minutes to complete, it is one of the longer games in our selection.

Lastly, *My Cotton Picking Life (MCPL)* explores the despairing monotony of being forced to pick cotton in a field in Uzbekistan. Picking one day's quota of cotton (50 kg) in the game would by our estimation take up to 6 hours of uninterrupted gameplay. Because the game is very repetitive and offers no incentives to keep going for that long, it is unlikely that many players play the game for more than a few minutes.

With the exception of *MCPL*, all the games covering this theme in this sample rely heavily on linguistic persuasion. All are trying to convey the situation their characters have found themselves in, and for the first three games this takes not only a backstory but also explanations of how their actions change their situation, taking the players through a narrative that the players have authorial control over. *MCPL*, on the other hand, does not focus on any story of the character, their situation is left vague while the displayed text addresses the general

issue of forced labor in Uzbekistan. This game focuses a lot of its persuasive signs on visual representation. The character looks unhealthy and unhappy, his (literal) outlook bleak. In the other games about poverty, the visuals are often underplayed. *Survive125* offers only schematic icons and a single background image. *Ayiti* and *PING* however, both styled their protagonists to best fit their target demographics. *Ayiti*, seemingly made for children, is visually and aurally gaudy despite the grave circumstances. Characters trot to and fro with cheerful tunes, and only when they get severely ill does their demeanor change to an unhappy one. *PING* shows 3D models in baggy pants and loose clothes, while portraits shown during dialogues show edgy haircuts and the odd piercing. Again, however, their state is not reflected in the way they look. The characters do not look tired, grimy, or even unhappy. This was likely done not to shock or scare away players. Because the developers of *PING*, *Survive125*, and *Ayiti* used such a “tell, don’t show” approach, players can slowly get to grips with the situations detailed in the games. Lastly, haptic signs are not used to any serious degree for the first 3 games. However, *MCPL*’s message that the work involved in picking cotton is an arduous and monotonous task is carried out through its reliance on players to constantly click buttons. The movement itself is dull, perfectly reflecting its task in its sheer futility while avoiding the intensity of the work and the fatigue it creates.

When looking on the level of systems, the haptic signs of *MCPL* also form the backbone of its procedural rhetoric. The game mimics the real-world work and instills the sense of hopelessness and lack of freedom through its monotonous gameplay. *Ayiti* also employs strong procedural rhetoric; the choices players make for their characters could keep the family afloat but

restrict individual development, and driving characters to work hard to eke out enough money can push them to the brink of death. The balance that players must seek mirrors the struggles of families in Haiti and other poverty-stricken countries. *Survive125* also covers that balance, but abstracts control of actions to one decision per day. Whether players send their child to school or to fetch water has an impact on both their current and future lives. In this regard, the games are similar, but because of the level of abstraction in *Survive125*, the choices are more easily made than if players would have to force these actions as it is in *Ayiti*. *PING* is about poverty in a Western city. The systems to be reflected in the game are necessarily different. *PING* therefore focuses its gameplay on the bureaucratic rat-race that destitute Western citizens fall into. Running to catch appointments at employment offices as well as asking friends for a place to stay are part of this routine.

Although *PING* reflects these real-world trials and tribulations in their procedures, it is impossible to fail. Spending what little money the characters have on hamburgers does not incur a fail state. Leaving his or her boss waiting for an hour does not mean they are terminated. In other words, this game employs conflicting tactical persuasion, as its difficulty does not match the problems faced in the real world. *Ayiti* fares better at this as it is quite difficult to make it through one session. Although this outcome is not inevitable, the family bond easily disintegrates into a game screen lined with tombstones. In fact, the tactical scope of this game is such that walkthroughs have been made available online by other players, and optimal strategies have been the topic of discussion on several online spaces. *Survive125* finds the middle ground between

these games as it is possible to fail, but players who choose carefully can easily ‘survive’ its 30 day run.

Evidently, the difficulty levels of these games are the result of their specific messages and target audiences. *Survive125*’s minimalist aesthetic is aimed at more adult players when compared to *Ayiti*’s cheery animations and melodies, which might mean *Survive125*’s players crave less game-like elements (such as challenge). This is why these games can have the same message of finding balance while being poor but have very different degrees of difficulty. *PING*’s purpose was split between informing and persuading (De Grove, Looy, Neys, & Jansz, 2012), which in this case meant that (young) players who were not proficient would still be able to learn the appropriate actions in preparation of their own lives. Lastly, *MCPL* approaches difficulty differently. Despite threats of harm from an off-screen aggressor, there is no fail state. Still, the size of its quota means it is also nearly impossible to win, and a button marked ‘Alright, I’ve had enough’ is visible all while playing. In this way, the game pushes players to give up, to stop playing to prove the point that forcing children to pick this much cotton is reprehensible.

The theme of poverty and hardship is prevalent in persuasive games because people want to spread awareness of humanitarian crises in novel ways (see also *Darfur is Dying*, for instance). However, adding a social component to help spread awareness seemed to have only been an ancillary concern for these games. Overall, these games employ few direct calls to action, apart from *MCPL*’s share buttons and *Survive125*’s options to post messages to

Facebook. It needs to be noted that some games outside of the current selection, such as *Darfur is Dying* (mtvU, 2009), do link to mobilization pages.

Lived Experience and Disorders

Games in the theme of lived experience and disorders are about personal stories. These games were made to reflect on what life is like for certain individuals, whether those individuals are insecure, repressed, or suffer from a neurological disorder. The games subsumed under this theme were *Depression Quest* (Quinn, 2013), *Power and Control* (Sain, 2011), *Dys4ia* (Auntie Pixelante, 2012), and *Auti-Sim* (Kay, 2013). Two of these games, *Depression Quest* and *Dys4ia* are partly autobiographical, as their developers relay their experiences with depression and hormone replacement therapy, respectively. *Auti-Sim* is biographical, developed by a parent of an autistic child. They all engage the player in first-person accounts of salient events or experiences.

Depression Quest is a branching text narrative that integrates the level of depression as a modifier that limits players' options as it deepens. Because the unavailable responses are still visible, the few months of the protagonist's life (shown through mood pictures, soft music, and text) the game follows are noticeably affected by this affliction.

The second game, *Power and Control*, is a uniquely designed game about a young female who is in a relationship with an abusive male. Displayed on a stark pink background and aurally accompanied by a male voice and varying background score, words are used to represent objects,

actions, or thoughts that the players can approach and touch or even avoid. All interactions in this game occur through the mouse cursor.

Dys4ia is the developer's account of the situations she dealt with while undergoing hormone replacement therapy (HRT). The game is played as a series of around 40 micro-game vignettes (reminiscent of Wario Ware games (Nintendo, 2014)), that all use one gameplay mechanic to display a situation, thought, or feeling.

Lastly, *Auti-Sim*'s title is a portmanteau of autism and simulation. The game itself is a 3D simulation of an autistic child walking through a playground filled with children. Approaching these children leads to social anxiety in the child, which is relayed through off-putting shrieking sounds while white noise blurs the screen. Players are driven to avoid the other children and seek out quieter areas, reflecting how difficult it typically is for individuals with this disorder to establish human contact.

Similar to the previous theme, three of the four games about personal experience rely heavily on linguistic persuasion, although they differ in their presentation style. *Depression Quest* offers a full narrative with fleshed out characters who react to each choice made, with every situation described in detailed text. *Power and Control*, on the other hand, presents single words that take the place of visual stimuli and behavior. The interactivity these words allow often give them meaning as they stand in for the protagonist's thoughts as well. *Dys4ia* presents the middle ground, with short sentences describing a situation or feeling. This shows how even in the relatively narrow genre of first-person experiential games, text can be used to either create

a total picture, or adversely to shield players from what would surely be off-putting (not to mention costly to produce) images. In all three cases, it allows for easier identification with the protagonist as players' minds fill in the blanks left by the text.

Auti-Sim, as can be seen in Table 1, is the only game in this sample that does not in any way rely on in-game text for persuasive effect. Instead, its emphasis is on visual and aural presentation. The masking of the screen and piercing noises form a deterrent to players from seeking out contact with others. The sensorial bombardment stands in for inner turmoil in anticipation or as a result of interaction. The game thus attempts to spread beyond the confines of the audio-visual browser game to simulate an internal state of being. Similarly, *Depression Quest* projects white noise on the game's background to signify deepening depression. However, in this case, the noise is not used to deter players but to frame the current situation. *Dys4ia* employs visuals in a very different way, though towards the same purpose. Its visuals are metaphorical, often either supreme close-ups of body parts or abstracted top-down views of social events. As the treatment progresses and insecurities come and go, the protagonist's body is in turn shown as silhouettes of oddly-shaped lumps or stereotypical male and female icons. The transition is also marked aurally through the developer's deep voice as it was used to create high-pitched sound effects.

Lastly, while *Power and Control* uses its words to great effect, the power of the game's signs comes from the physical mouse interactions. The cursor is at once a finger, a body, and a decision. Told to approach, stay on, or avoid some of the words, the game is lent a physical

dimension as the player is forced to ‘touch’ disconcerting concepts. Since there are no visuals beyond the words, the game’s constantly oppressive male voice-over enforces the brunt of the emotional engagement.

Of the three themes, lived experience and disorder persuasive games seem to rely the least on procedural rhetoric. *Depression Quest* crosses off unavailable (often assertive or positive) ways to deal with situations, explicitly showing players that what they would normally do is simply not an option for the protagonist. Moreover, this funnels the player, making it harder to ‘choose’ their way back from the depression. Despite the limitations, it remains possible for players to simply always choose the most positive option available to work their way up – which is in our model labelled as conflicting tactical persuasion. This means the unavailability system does not necessarily cause *Depression Quest* to have players think or act as if they were depressed. The game therefore relies primarily on affective persuasion (by drawing the player into its narrative and making it their own) to envelop the player in its message.

Looking at *Dys4ia*, procedural rhetoric is not only limited (in that its systems do not meaningfully reflect real-world processes), players can get a sense that since the game is a straightforward set of micro games, undergoing HRT is also not really a struggle. Its many tiny mechanics can be interpreted to show that each situation the protagonist finds themselves in is unfamiliar and requires novel ways of dealing with a situation. However, as with *Depression Quest*, *Dys4ia*’s power lies in narrative and affective persuasion, showing the players what such an idiosyncratic process feels like in a personal way.

What is then different from the other themes is that the games about these personal experiences are not hard. The developers have prioritized the game's experience and story over providing a challenge. The lack of difficulty does not always help the game's messages (*Depression Quest*, *Dys4ia*), but in most cases these games do not need to hinder the player more than needed to tell their stories. Lastly, just like in the poverty and hardship theme, social persuasion is mostly absent. *Depression Quest* does underline the importance of social contact for this affliction, though, by linking players to sites where they can look for help.

Persuasive games are a fitting home for personal experiences. Players can try to match their thinking to that of the protagonist, trying to get a feel for what cannot easily be transferred through an audio-visual medium. Similarly, many commercial games are picking up on this trend (coinciding with a shift towards greater diversity) and portray lived experiences in critically acclaimed games (e.g. *Gone Home*, *Life is Strange*, *That Dragon, Cancer*) as gaming culture is slowly becoming more inclusive (see section 3 of this volume). Interestingly, these high-profile games tend to show the same pattern of branching or uncoverable narratives as the smaller non-profit counterparts described in this chapter.

Violence and Politics

This theme includes three games that seek to address the use of violence in wars and civilian contexts. The violence these games contain is therefore meant to address violence in society on a broader level. The games are *September 12th*, (Frasca, 2003b), *The Best Amendment* (Molleindustria, 2013), and *Endgame: Syria* (Rawlings, 2012a). Two of these games (*September*

12th and *The Best Amendment*) condemn it outright, while the third (*Endgame: Syria*) explores its apparent necessity and uses in combating dictatorships.

September 12th is a self-titled ‘toy world’ exploring aggressive tactics used against terrorists. On a single screen, the player can fire missiles at terrorists walking among civilians in a Middle-Eastern country. The delay between a missile’s launch and impact as well as its large blast radius means it is impossible to keep from killing civilians. Those that are caught in the blast are mourned by other civilians who subsequently turn into terrorists, presenting a perennial cycle of violence where more terrorists are ‘created’ than are killed.

The second game, *The Best Amendment*, is concerned with gun violence in the United States. In this top-down twin-stick shooter, players are competing with their former selves. By shooting these prior versions, subsequent levels then have this same aggressive act in them, increasing the violence and danger until it becomes impossible to survive. The message this extolls is that the use of violence only fights fire with fire, adding more violence until the situation becomes untenable and the player character is killed.

The third game is *Endgame: Syria*. Coming from the same developer as *My Cotton Picking Life*, this game similarly tackles a contentious topic: the early years of the Syrian civil war. Players play tactical and aggressive cards in an abstracted card game environment (in the vein of *Magic: The Gathering*) to maintain support for the rebels, weaken the regime’s forces as well as negotiate cease-fires and peace talks.

The way the games are presented is surprisingly varied. *September 12th* displays text only before the game starts, though that text sums up most of the game's message: "It has no ending. It has already begun. The rules are deadly simple. You can shoot. Or not. This is a simple model you can use to explore some aspects of the war on terror" (Frasca, 2003b). *The Best Amendment* intersperses its combat scenes by quoting and referencing famous pro-gun activists from the National Rifle Association (NRA). The text explicitly references a dichotomy of good and bad and immediately problematizes this: "Be the good guy with a gun! Stop the bad guys with guns! But will that make you a bad guy in the eyes of somebody else?" (Molleindustria, 2013). Both games offer thinly veiled critique through the use of certain phrases. *Endgame: Syria*, conversely, does not include many subversive or explicitly persuasive messages. Instead, players are given a lot of information on each possible action, detailing effects such actions have on the rebels, support for the regime as well as civilian life. Through the act of playing this game, players can therefore get a sense of how both parties have behaved in this conflict.

Visually and aurally, both *September 12th* and *Endgame: Syria* make use of stimuli without relying on them for their argument. Though *September 12th*'s cell-shaded visuals seem out of place, they are never cheery, and the sounds of explosions and mourning establish a bleak atmosphere that reflects the continuing tragedies in this region of the world. *Endgame: Syria*'s visual and aural cues are all icon-based and mostly designed to quickly relay necessary information. As with the games on poverty and hardship, these games eschew horrific images, masking them with menus filled with numerical information in the case of *Endgame: Syria* or abstracting them to small and simple sprites (*September 12th*). Conversely, *The Best Amendment*

seems designed for shock value. Characters bleed after being shot, for instance. The player character is a conical white figure, invoking images of Ku Klux Klan (KKK) robes. This racist connotation is made explicit as the enemies the player shoots are black cones and the game's score consists of frantic banjo riffs. The game's author, Paolo Pedercini, indeed drew a comparison between the NRA and the KKK when asked about this interpretation (Webster, 2013).

All three games approach violence differently. *The Best Amendment* is fast-paced and becomes progressively more difficult. *September 12th* is sedate, as the terrorists do not pose a threat to players and the time delay between firing a rocket and hitting the target precludes a fast rate of fire. *Endgame: Syria* allows players to set the pace, valuing strategy over reaction times. For the first and third game, this difference is caused by the distinct messages of these games. *The Best Amendment* aims to satirize and subvert pro-gun ideology, with zesty, violent gameplay conveying its message. *Endgame: Syria* instead treats its subject matter more solemnly. It aims to provide a realistic view of the different actions one can take to fight a civil war – though it leaves out civilian-targeting atrocities such as chemical warfare. Its message is therefore more one of understanding and, perhaps, sympathizing. *September 12th*'s succinct point is delivered mainly through the single gameplay loop of firing missiles and hitting innocents to 'create' new terrorists. The similarities of these games therefore come down to a shared focus on the game's systems to relay the message. *Endgame: Syria*, in contrast to the others, further adds a narrative element to these systems. Through constant battles and contact with outside organizations and nations, players not only manage their resources but can also actively choose to minimize

civilian casualties, for example. The story of the civil war this creates will be counterfactual, but it is meant to let players experience how decisions they would make would work out.

In opposition to the previous theme's focus on narrative over gameplay, all three violence-focused games offer some degree of tactical freedom. While this is comparatively limited in *September 12th*, players are likely to try to wrestle with different times of firing and different locations before they give up. This entails getting to grips with the inevitability of collateral damage, but the game leaves enough leeway for first-time players to get the sense that it is possible to only hit terrorists. In *Endgame: Syria*, the luck-based drawing of cards as well as the multiple advantages and disadvantages each card offers lend the game surprising depth. Players can choose to play in different ways, and the game's relative difficulty means there is an incentive to play tactically. The design of both of these games is aimed at tactical persuasion, as the leeway and freedoms granted to players all further promote the messages they send. *The Best Amendment* is fun to play and surprisingly addictive, incentivizing repeated attempts in pursuit of a high score. Indeed, the game is such an enjoyably frantic game that its message could easily be lost on players amid the carnage. In that way, the game's score counter is to the message's detriment as it might cause players to want to add violence in pursuit of the leader boards, meaning it can be played and enjoyed by exactly those individuals it should be persuading. These players might get the feeling that though violence only builds up, it does make for an interesting experience. This is likely not the message its creators have wanted to spread.

Conclusion and Discussion

Overall, with the exception of *Auti-Sim*, all of the games discussed in this chapter rely on linguistic persuasion. The appeal of communicating with players through text is obvious; it is an efficient (and comparatively cheap) way of reaching the audience to make a message explicit. Moreover, while all games also emphasize other persuasive dimensions, the addition of text in most cases does not disturb the flow of the game or its core message. From the current selection, it seems that most games therefore include text to bolster an otherwise less clear message.

All games in this selection also employ procedural rhetoric, though not every game is successful in this regard. Table 1 supports the contention that when developers set out to make a persuasive game they develop it around either a core narrative (*PING*, *Depression Quest*, *Dys4ia*, *Endgame: Syria*) or around their principal gameplay elements (*Ayiti*, *MCPL*, *September 12th*, *The Best Amendment*). Developers want to (allow the player to) tell a powerful story or they rely on the gameplay elements to tell the story for them. While this harkens back to the ludology/narratology debate (Frasca, 2003a), there is no indication that narrative-focused persuasive games have uninteresting gameplay or vice-versa. Moreover, both routes seem to lead to concrete and interesting experiences that offer strong messages.

Apart from procedural, linguistic, and in half of the cases narrative persuasion, other persuasive strategies are used only in a few of the games. Visual persuasion especially is used sparingly. This is likely the result of the reduced budgets available to persuasive game developers. However, *PING*'s 3D graphics – signifying a more generous production – are not used to convey elements like negative emotions or griminess often associated with living in

destitution. The other reason for this paucity is the desire for developers to shield their audience from shocking visuals. The likely argument behind this is that shocking players would scare them away or at the very least remove attention from the game's message. This also holds in the case of *PING* and *Ayiti* because of their younger target audiences. For games like *Survive125* and *Depression Quest*, the clean and unthreatening presentation seems to cater to a target audience that takes the subject matter seriously and is playing to be informed, rather than entertained. On the other hand, the bold visual styles of *Dys4ia* and *The Best Amendment* make these games stand out. Overall, the way persuasive games are presented depends on their target audiences and specific persuasive goals.

Several persuasive games studied here are trying to break free from their constrictive medium (i.e. the browser window). *Power and Control* draws players into an oppressive situation. Using only written and spoken words, it aims to unsettle players and cause them to feel threatened and belittled. *Depression Quest* and *Auti-Sim* both apply visual signals to indicate negative states of feeling. Compared to non-interactive media, these games more easily elicit empathic responses from players, as they are given a role to play, uniting their goals with that of their protagonists at least for the duration of play (Juul, 2013). The games about lived experiences and disorders all try to invoke an affective dimension, in keeping with the emphasis on personal stories. Interestingly, this does not necessarily coincide with a focus on narrative persuasion. *Auti-Sim* does away with it entirely, and *Power and Control* relies more heavily on moment-to-moment interactions between the protagonist and her abuser, only developing into a coherent story as it reaches a crescendo where the protagonist is deciding whether or not to leave

her tormentor. However, in keeping with their browser-based nature, only one game (*PING*) out of eleven can be said to apply cinematic persuasion. For the others, there are no cut scenes, and the framing of each scene is often abstract, minimalist, or purely functional. In other words, the viewpoint and mise-en-scene are not used to express the games' messages. The games are certainly attempting to expand beyond their windows, but they do not adhere to the strategies of other media. Instead, they make use of the unique engagement afforded by the playful, interactive experience.

My Cotton Picking Life, *September 12th*, and *The Best Amendment* share another interesting structural element. These games were not designed to let players win and experience mastery, but rather the opposite; these games intend for their players to give up. *MCPL* features a button that reads 'Alright, I've had enough', before chastising players who click it by telling them not everyone is in a position to decline this work. *September 12th* initially seems like an easy game of target practice before it frustrates players with the inevitability of harming innocents. *The Best Amendment* shows that acting violently only adds violence, escalating a situation and leading to more harm. This supports the point made by Ruggiero and Becker (2015) that some games are not made to be winnable. In fact, these games want players to give up to get their message across. Players need to have a revelatory moment where it becomes clear that their actions are futile (*MCPL*) or only escalate the problem (*September 12th*, *The Best Amendment*) and that "the only winning move is not to play" (Badham, 1983).

De la Hera's model (2015) enabled us to differentiate between the linguistic and procedural persuasive dimensions that are emphasized in almost every game, and dimensions that are used sparingly. Moreover, while dimensions are almost always used in tandem in any particular game, each dimension can be emphasized on its own as well. For example, narrative persuasion does not necessarily need to coincide with affective persuasion, and visual and aural persuasion can be distinguished from sensorial persuasion. We consider the model to be a valuable tool for descriptive purposes, discerning different kinds of persuasive games. Additionally, the model is a means to visualize gaps – unused persuasive dimensions– that could be filled by future persuasive games. The social dimension, for example, saw little emphasis in most of the games discussed here, despite the level of reflection discussing these games could encourage (see also chapter 12 of this volume).

In this chapter, we investigated the persuasive dimensions games employ to spread their message. We based our conclusions on 11 persuasive games that are currently playable online. Though these games only represent a small portion of the rapidly expanding catalogue of this genre, they show at the same time a broad reliance on the written word and procedural rhetoric as well as an interesting variety of strategies. For example, differences can be found in the time needed to finish these games. Some authors feel their message needs or deserves a certain time investment from their players, while others are satisfied with 60 seconds of the players' attention (e.g. *September 12th*, *Auti-Sim*). Persuasive games can be seen as separate from entertainment games or other serious games because they were not made to appeal to as large a crowd as possible. Persuasive games can be short, hard – even unwinnable – and developed with any

budget. They do not need to entertain their players for the duration of lengthy, cinematic campaigns to give players their “money’s worth”. Persuasive games justify their length and production values only insofar as they help to propagate their messages. This economical consideration informs their designs and presents the freedom to make games that, for example, almost force players to stop playing to prove their point. Similarly, other authors make it impossible to lose the game in favor of letting players stick to the narrative (*Dys4ia*), which might cause players who do not feel challenged to lose interest. The results of our case based analysis lead us to the conclusion that persuasive games offer organizations and idealistic authors alike an outlet for novel persuasive communication which can employ different dimensions. In this sense, persuasive games are indeed the digital pamphlets of the current media landscape.

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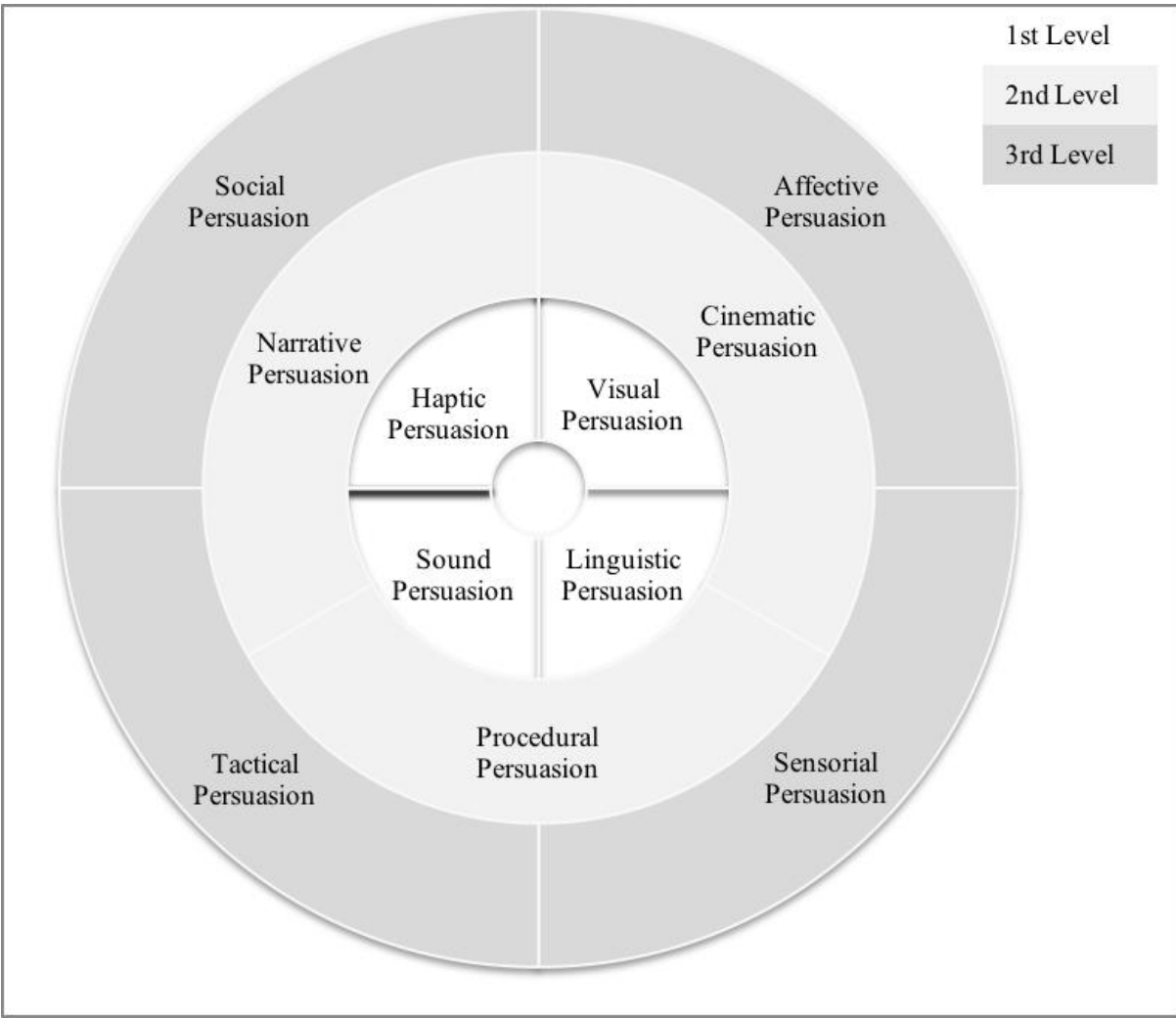


Figure 1: Model of persuasive dimensions employed in persuasive games (De la Hera, 2015)

Table 1:

Emphasis on persuasive elements of the games studied

Theme:		Poverty & Hardship				Personal Experience & Illness				Violence & Politics		
Level	Persua- sive Dimen- sion	<i>Survive 125</i>	<i>PING</i>	<i>Ayiti</i>	<i>My Cotton Picking Life</i>	<i>Depres- sion Quest</i>	<i>Power and Control</i>	<i>Dys4ia</i>	<i>Auti-Sim</i>	<i>Sep- tember 12th</i>	<i>The Best A- mend- ment</i>	<i>End- game: Syria</i>
Signs	Linguistic	++	++	++	+	++	++	++	0	+	+	++
	Visual	0	+/-	+/-	+	+	&	+	++	+	+/-	&
	Aural	0	&	+/-	&	&	++	+	++	+	&	&
	Haptic	0	0	&	++	0	++	+	0	0	&	0
Systems	Procedural	+	+	++	++	+	+	+/-	+	++	++	+
	Narrative	++	++	+	0	++	+	++	0	0	0	++
	Cinematic	0	+	0	0	0	0	0	0	0	0	0
Contexts	Affective	+/-	&	+	0	++	+	+	+	+	0	0
	Sensorial	0	0	0	0	+	+	0	++	+	&	0
	Tactical	+	+/-	++	0	+/-	0	0	0	++	+/-	++
	Social	&	0	0	&	+	0	0	0	0	0	0

Legend: ++: Strong emphasis, +: Emphasis, +/-: Conflicting emphasis, 0: No direct emphasis, &: Supportive emphasis