Through the Looking Glass: Weavings between the Magic Circle and Immersive Processes in Video Games

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ABSTRACT
This paper proposes a critical discussion about the magic circle concept, through a debate with prior works on the issue, as those elaborated by Johan Huizinga and Katie Salen & Eric Zimmerman, as well as with cognitive psychology studies regarding attention. We shall argue that the magic circle, instead of separating fiction and reality, would work as a cognitive mediation structure with graded "boundaries", which existence occurs in diverse forms, depending on variables like player immersion and attention. Thus, these boundaries get defined and "solid" as the immersive process is developed and one reality seems to change into another: as the player "gets into the looking glass".

Author Keywords
Magic Circle, Immersion, Attention, Video Games

THE MAGIC CIRCLE

It is curious to realize that there is a certain agreement between the various aspects of media when it comes to treating both the spheres of work and play. As Nick Yee [26] has coherently pointed, these activities remain as separate poles of the same dichotomy. Such framing has received wide support, along the course of history, figuring also in the ideas of some of the classic game theorists: Johan Huizinga [12] and Roger Caillois [4], for instance, believed that in order to play a game, the individual has to consciously step outside "normal life" [12] and voluntarily engage into an activity considered "not serious" – suppressing both time and space.

This place in space and time in which the play activity happens received a thorough theoretical treatment – and a proper terminology – when Katie Salen and Eric Zimmerman [23] published their treatise on general analysis and development of the constitutive processes of the game – from their analogical components, commonly represented by cards and boards, to their convergence with hypermedia, where is located the essence of the video game – and has been recently known as 'magic circle', being inspired by a passage in Huizinga's classic *Homo Ludens*. According to the authors, "Although the magic circle is merely one of the examples in Huizinga's list of "play-grounds", the term is used here as shorthand for the idea of a special place in space and time created by a game" [23]. Although the notion of Salen and Zimmerman is based in one of the most classic treatises on the relationship between culture and the ludic expression, it has been extensively debated in the last years.

However, we should consider the idea of transposition of realities supported by Salen and Zimmerman [23] when they ask what psychological attitudes would be necessary from a player the moment she engages a game. Such idea – if generally taken – may be considered a direct reference to the understanding of the real-virtual relationship as a dichotomy; we would like to point here that such dichotomist view has been widely challenged by the more recent cyberculture theories. This notion, then, takes us to this point: is it really valid to acknowledge the existence of such a barrier between realities – or reality and game – that needs to be disrupted? Perhaps so, if we consider video games in which the essence of the narrative is more salient, games that proclaim the necessity of dealing with particular sensitive experiences – implying absorption of the player into the narrative world – through immersive process, as would point Janet Murray [20]. When addressing other contemporary games categories, though, it becomes difficult to maintain such separation. (i) Pervasive, (ii) alternate reality games and (iii) MMORPGs are some of the examples we have to offer – examples that work in the sense that they try to effectively blur the borders between "normal life" and fictional world.

It is important to point out that our aim is not to derogate Salen and Zimmerman's notion, but to reconsider it through the premise that some ludic forms have assumed – through time and due to their contact with digital and network technologies – complex structures for which both Huizinga's [12] and Caillois' [4] approaches seem to lack specificities – and the formalist notion of Salen and Zimmerman seems to impose a very dichotomic view. Therefore we question not the totality of the notion of magic circle, but rather its application to these borderline cases, in which it is clear that there is a much larger dialogue between the game structure and the "normal life".

Thus, the point would not be to consider the magic circle as something that necessarily encapsulates the player, suppressing space-time and projecting her into an

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alternative zone. Instead, we would acknowledge the existence of the magic circle – alongside with its inherence to the game structure – but as a mediation element, which facilitates the player dialogue to both the game space and the reality. Such mediation may be presented both as a fluid form – drawing blurred borders, in the sense that they cannot be plainly identified, which allows fiction and reality to meet; and in a harder, more defined – solid – form, which really enables the sense of displacement – space-time suppression – through an immersive process.

Thus, we understand the magic circle as a cognitive structure whose action depends on an undetermined number of variables. This assumption offers a less limiting and wider perception of the classic understanding of the magic circle theoretical concept. Our proposal, then, is that the magic circle does not separate effectively the game world from reality; rather than that, it acts as a mediation tool assisting the player on how to deal with the different sides of the universe – and not with *two universes*.

Such proposition finds support on the ideas of some game studies theorists, like Juul [17], who points that, to Huizinga [12], the space in which the game develops is as separate as other daily spaces, as court houses, churches and classrooms – places that are integrated to the flow of life, but that ensue on a different behavior – which explains the fact that Caillois [4] refers to these places as "separate". As Juul [17] points out: "For Huizinga, the space of game-playing is but one type of space governed by special rules, and as with other types of space, the space of game-playing is social in origin. People make special spaces, be they court houses, religious spaces or game spaces". This proposition takes us to a more specific understanding: although we may refer to games as objects, there is another aspect that should be considered: the interaction between games and people. The space-time construction, inherent to "play a game", demands interaction between people and object. Hence Juul's proposition [17] that the magic circle is not only formed by the structure of the rules, but requires the players to uphold the illusion of world: the borders of the magic circle are, therefore, negotiated and defined by the players.

Thus constituted in the moment the *object* game becomes the *activity* game, the magic circle can be understood as a mediation structure due to the fact that it does not act like a space limiter or a mechanism of transport to another dimension, but is merely the point where the "normal life" [12] meets this "separate place". Perhaps an analogy would help us to illustrate our point: when we enter a catholic church, hoping to attend to the Mass, or if we are in a court house, on an audience, the circumstances of the context transport us socially and psychologically to a delimited space, conducted by a number of laws and upholding a number of principles – both the former and the latter supported by the structure of tradition.

The laws and principles that maintain these spaces, thoroughly, are nothing but rules that manage an object – both a court audience or a wedding ceremony –, and the people are nothing but individuals behaving like it is expected of them – according to these social rules. None of the situations, however, keeps us from dealing with common life situations that happen concerning other aspects of our lives different from those "consecrated spaces" [12] – because also in these spaces it is possible for us to talk about a certain number of "indulgences", like going out of a ceremony to answer the cell phone, for example.

In the understanding of this paper, the magic circle is configured as a mediator exactly because it is a channel through which the separate worlds establish contact. In the common analogy of 'stepping through the looking glass', absorbed into culture due to Lewis Carrol and his *Through the Looking-Glass* [6], the magic circle exerts the function of the mirror – considering that the world on the other side is nothing more than an extension of the world where we live.

The game structure, even though having its solid rules and codes of conduct, possess this afore-mentioned indulgent essence explored by the analogy between consecrated spaces and game spaces. This indulgent quality appears precisely in the way that players explore, appropriate and adapt to the rules. "Players do not simply adopt the rules of the game as given but regularly create their own achievement paths and make sense of the frames of play in ways not always prescribed by the designers" [25]. This adaptation varies according to the essence of the game – in a soccer match between two teams of five people, for example, it is not appropriate to stop the other nine players in order to answer the cell phone, or to check meteorology; in the gameplay of an ARG, as the relationship between player and both space and time is eminently different from the relationship experienced by a sport, like soccer, such indulgences are acceptable.

Accordingly, then, to what was discussed about the notion of magic circle, we should notice that the mediation occurs in two distinct dimensions: the first of them (i) is related to the game as object – symbolic structure commercially built up and consumed – and concerns the technical assets involved in its creation: the rule and the narrative structure, elements that congregate the essence of the object aspect of the game. The second dimension (ii) is related to the way the game shows itself in the moment of the gameplay – it concerns the game as activity; in the moment that the structure composed by rules and fiction – as pointed by Juul [16] – becomes available to potential players, these are able to start up a process of adaptation that becomes, later, a process of appropriation, quite common to the relationship between men and objects. These two dimensions of the game – which are an important part of the understanding of the consecrated place, therefore part of the understanding of

the magic circle – will be properly worked ahead, in the next topic of this paper.

ELEMENTS OF THE COMPOSITION OF THE GAME

The structure of a game, then, takes place mainly in the development of two axis, in which the first (i) concerns its constitutive aspects: its rules – premises, or simply inherent to the environment – and the fiction – narrative worlds, diegesis – supported by the former. The second axis (ii) concerns the eminently social aspect of the game – the way players appropriate and adapt what is offered by the first axis. This bi-partial understanding through these lenses is a direct consequence of the understanding of game by Juul [16] that makes sure, with his division, that the researches concerning games may be centered (a) in the system – handling the game as an object – or (b) in the relationship between games and society – handling, then, the game as an activity. Concerning this issue, our focus is to analyze how the immersive process experienced by players may assume aspects which concern sometimes the rule structure, sometimes the narrative structure.

The game as an object: rules and fiction

The understanding of games as devices composed both by rules and fiction is the legitimate child of an academic debate that pervades the field of game studies since the 1990s, when Espen Aarseth [1] published his book about the systematic and interactive aspects of some kinds of texts – cybertexts, for the author – and Janet Murray [20] published her book on the dramatic aspects of the new media. Both the treatises, although not the only ones concerning their respective fields, may be the most important in their own axis: Aarseth's [1] book representing the ideas of ludology and Murray's [20] ideas representing the ideas of narratology.

Some authors believe that video games are only a new form of traditional narrative. The point behind this belief is that we should keep in mind that games share a long chain of elements with stories: characters, settings and plot elements, for example. The main issue in analyzing games exclusively from this premise is that it ignores a very straightforward and key element to games research: the fact that games are games. The ludic element – either the agonistic perspective or the simple rule structure, claim for interaction – those are characteristics that are not present in any other media – like cinema or television. Besides, narratives that are built up within the digital context "tend to be much closer to the open form of the game (…) than to the irreversible sequence of events that underlines the narrative experience commonly known both in the literature and in the cinema [18].

This open form to which Brazilian media theorist Arlindo Machado refers is related to the discussion we have been structuring through this paper: the interaction, the participation, is not an option in the game. Without it there is no narrative experience. Unlike cinema or literature, in video games, the user intervention is "not only desirable – but demanded" [18]. The graphic structure present in the game would, then, be there to make sure that the system worked – that it could be decoded by the interactor. Such ideas, however, do not exclude the existence of the narrative in the game – they only consider that such element is merely subordinated to its ludic structure [16]. Considered like this, the act of playing becomes much more important than the experience of the story or the development of the personality or other feature of a character.

The fact is that sometimes the video game player is so absorbed by the goals of the game – by its ludic structure – that she cannot properly realize the events being written by her actions: this is absolutely transparent to her, if we consider a process of total immersion. However, we need to ponder that *a posteriori*, when describing the game sessions, the player will narrate the facts in a way that they assume the typical form of a story.

Although Frasca [11] proposed an approximation between the theories, the most expressive effort concerning the harmonization of the narratology-ludology divide – and the one that figures as the main support of this paper – was engendered by Juul [16]. Moving away from the radical position defended years before, the author brings into line the two theories, creating a singular understanding of the game. Let us approach, now, the elements of composition of the object game: rules and fiction.

Rules

According to Juul [16], it is necessary for us to assume that, among other characteristics of the game – like the player interaction, the competition or the team work – the rules configure one of the aspects from which we, as players, extract pleasure, by overcoming a challenge delimited by them.

Bernard Suits [24] believes that the role of the rules in a game is to keep players from using more effective means to reach their goals. Juul [16] interprets the premise of Suits as concerning basically the sports, and basically rejects it. Such premise is still supported by other game theorists, like Katie Salen and Eric Zimmerman [23], who believe that "rules are "sets of instructions," and following those instructions means doing what the rules require and not doing something else instead" (Salen and Zimmerman 2003). Juul [16] believes that rules specify limitations; however, they also help create specific actions that have specific meaning inside the game world, but that in "normal life" [12] do not make any sense. It is the case, for example, of a checkmate in a chess game, or the capture of a piece in a game of checkers. Therefore, another assumption concerning rules is that they produce meaning, providing the game with a minimally predictable structure on how the player should proceed.

Fiction

Although every game has rules, often we deal with games that, besides rules, also project a fictional world to which the controlled characters, the sceneries and the developed actions in the game flow are attached. According to Juul [16], rules and fiction compete for the player's attention – complementarily, though asymmetrically. This asymmetry refers to the fact that we may discuss the rules without approaching the fiction, but though games – especially video games, but not exclusively – are characterized by the potential projection of a world, it is impossible to deal with fiction in a game without approaching its rules. Juul [16] points this when referring to "incoherent worlds" – worlds in which the narrative does not explain what happens in the game, which can be accomplished by the rules.

When discussing fiction – and the notion that games project worlds – Juul [16] uses the notion of possible worlds, from analytic philosophy. According to the author, "In its most basic form, possible worlds can be understood as abstract collections of states of affairs, distinct from the statements describing those states" [16]. Although we may have the conscience that a fictional world goes effectively beyond what is written (or shown, as a matter of fact), we may say that these lacunas work in harmony with the production of meaning of each one of the players engaging the given world.

This happens because such worlds are, according to Juul [16], incomplete. Such incompleteness comes from the fact that authors have the power to decide what is or what is not true in the world they create, at the very moment they create it – and it happens simply because it is not possible to specify all the details about whatever is the world. To deal with this issue, Marie-Laure Ryan [22] has created the theoretical concept called "principle of minimal departure", which proposes that when a piece of information about a determined fictional world is not specified, we usually fill in the blanks with our understanding of the world to which we are used. This explanation provides liberty for the authors to ignore certain descriptive aspects – such as the gravity, for instance – of their worlds.

In the next section, we will approach the concepts of immersion and attention and some of their features, as types and levels, relating them to the magic circle concept as proposed in this paper.

IMMERSION, ATTENTION AND VIDEO GAMES

Jennett et al. [15] say that immersive processes occur quite differently in video games than, for instance, in film or virtual reality systems. Some factors related to immersion – like motivation, empathy and atmosphere – would be processed in different ways on all these media. Nevertheless, we would argue that – besides these factors – attention, a much-disputed concept since at least late nineteenth century, is a fundamental key to understand the immersive processes in all these media, particularly video games. Besides, we would argue that the immersive processes that occur in video games are directly related to certain forms of player attention, and that these processes (both immersion and attention) happen in a gradual fashion. Later in this paper, we will relate these processes to the magic circle concept, debating some theoretical points of view regarding this issue.

Immersion and Attention as graded experiences

Emily Brown and Paul Cairns [3] define immersion in video games as a graded experience. Since the player begins her interactive experience with a game, she will pass through many stages, related to the immersive levels, until she reaches the highest immersion level, which is the sensation of presence. These stages are, according to Brown and Cairns [3], *engagement*, *engrossment* and *total immersion*, and in order to pass from one stage to the other, the player has to overcome some barriers, which arise "from a combination of human, computer and contextual factors" [15]. On the last stage – *total immersion*, player will have spent a great amount of time, energy, effort and attention in the game, being "less aware of their surrounding" [3].

Brown and Cairns [3] mention attention as a component of the immersion processes in video games, which is present along all the above mentioned stages in a gradual fashion. Roger Caillois [4], in his classic work *Man, Play and Games*, had already pointed out to the importance of attention in play activities. In fact, if such ludic activities comprise cognitive and sensory-motor processes, as put by Ermi and Mäyrä [10], attention shall be seen as one of its main components, since it is directly related to those processes. Besides these authors, other video game researchers [2, 15] confirm a close relation between attention and immersion, and their graded correspondence [15]. Furthermore, other cognitive psychology authors advocate that attention is a cognitive process subject to intensity and to a graded scale [19]. Thus, according to this perspective, it is possible to talk about being *more attentive* or *less attentive*.

Next, we will introduce some definitions and classifications regarding attention, based on the work of some authors from cognitive psychology, in order to better relate attention to immersion and its types and levels.

Attention: selective and limited

Among the many definitions for attention, one common assumption lies in the fact that it is a process (or a set of processes) that contributes to the selection of a piece of information among others [19]. This notion is already present in 1890's William James' *Principles of Psychology* [14], one of the first researches about attention: to the author, attention is "the taking possession by the mind, in clear and vivid form, of one out of what seem several simultaneously possible objects or trains of thought." [14].

Another widespread notion regarding attention is that the human being has a limited amount of attention to "spend"

[14, 19, 21]; for this very reason, attention foresees a selective process *per se* (it is not possible to be attentive to everything at the same time). From this statement another proposition can be traced: that attention would depend on the individual intention or choice; it would not be, as previously put by authors like Locke and Hume, an ordinary result of experience, something strictly passive, given *a priori* [14, 19].

Raja Parasuraman, another author from cognitive psychology, expands the concept of selection and replaces it as one of the components of attention, beside *vigilance* and *control*. According to the author, selection is necessary because of a limitation in human brain processing and computing information. He says: "Without such selectivity, organisms would be ill-equipped to act coherently in the face of competing and distracting sources of stimulation in the environment" [21]. Still according to Parasuraman, all these components of attention (selection, vigilance and control) have the objective of helping to perform "goal directed tasks" [21], which implies in understanding attention as a "tool" in service of an intention, as previously put; such notion was already important to James, for whom attention allow us to better "perceive, conceive, distinguish and remember" [14].

Types of Attention

Another common assumption about attention lies in the fact that many authors refers to it as a process that occurs in differentiated forms, thus implying in different types or modes of attention. Because of the complexity of performing such a taxonomy and in order to better understand the different forms of attention and their relationship with immersive processes in video games, we shall adopt, in this paper, the proposition taken by Parasuraman, also shared by other authors from cognitive psychology [5, 7], who understands attention as fundamentally composed by three functions: selection, vigilance and control.

Selection

Selection (also called selective attention), perhaps the most cited and commented aspect of attention, helps the subject to perform tasks that are directed to specific goals, in a given (usually relatively short) period of time. As previously put, human cognitive capacity is limited [7, 19, 21]. Because of this limitation, when one concentrates to perform a task, which will activate a set of mental processes, it is natural that her cognitive processes exclude all the information that is not directly useful to the task performing. As Cohen [7] says, "A fundamental aspect of our cognitive activity is selection, by attentional mechanisms, of a portion of the vast amount of information we are confronting at any moment". Usually, selective attention contributes to enhance efficiency is specific task performance.

Vigilance

Vigilance (or sustained attention) refers to maintaining an objective (or goal) over time, taking the subject to a state of *vigilance*, which Mialet [19] relates to the state of *expectation*. This kind of attention foresees a fluctuation on its intensity level, alternating between moments of greater attention and moments of reverie, when mind fades away from the object/information attended [8], resulting sometimes in a state of automated attention. One example of sustained attention is the work of surveillance, when one needs to be constantly concentrated on a subject (or a set of subjects), over a period of time. In this case, attention will work towards a general "scenery" grasping. Besides, Parasuraman [21] indicates that these two types of attention (selective e sustained) are naturally alternating and exclusive, and do not occur at the same time.

Control

The third element of attention, control, is directly related to the fact, previously mentioned, that human being has a limited amount of attention to be undertaken in a particular moment or situation. Thus control, also called by Cohen [7] *executive function*, takes the role of distributing attention to the various requests from the environment. It is also important to note that although limited, the amount of attention is flexible, and thus can be "divided" between all concurrent tasks. The percentage of attention allocated to each particular task will depend on the importance given to each one of them [7, 21]. As Cohen [7] observes, "We are constantly facing strategic cognitive choices in our everyday life. At a larger scale we decide on the activities in which we want to be involved. At a smaller scale we are often faced with several possible tasks and need to decide which has a higher priority or when to shift from one task to another (…) The executive functions perform these control activities."

IMMERSIVE AND ATTENTIONAL MODES IN VIDEO GAMES

As previously put, according to Juul [16], video games are basically formed by two components: rules and fiction. Hence, we would argue that during gameplay, there will be moments when the rules component will work in "foreground", while the fiction (narrative) component will rest in a "suspension" state; and moments when the fiction (narrative) component will work in "foreground" and the rules component will enter the suspension state. In each one of these "moments", a particular type of attention – either selective or sustained – would be at work.

Based upon other authors [10,15], we would also argue that there are at least two immersion types/modes that occurs during the gameplay, and that they are directly related to the component working "foreground" in a particular moment of the game – rules or fiction. We will address these two types of immersion as (i) operational immersion and (ii) narrative immersion. Besides, we believe that these types of immersion are related to the attention modes undertaken by

the player in each of these moments: selective attention and sustained attention, respectively.

Selective attention

Selective attention, as previously seen, contributes to the performance of specific tasks, usually in a short time span. When selective attention is activated, cognitive processes start to filter the environment sensory information, so that only the pertinent information to the performance of the task be perceived and processed. This adds to an "improvement of the cognitive efficiency" and an "optimization in the information treatment" [19].

We believe that during the gameplay, this type of attention is activated when the rules component is working foreground; for instance, when the player is hindered by an obstacle or challenge that must be overcome. At this very moment, all her attention will be focused on that challenge. By contrast, the attention given to the narrative or to the "macro" surrounding environment – both the game environment as well as the physical environment where the player is located – will be decreased.

Therefore, selective attention jumps into action to gather the most important information to help the player overcome the challenge or the obstacle. At this moment, the player will be immersed in the game because she has "in her hands" a challenge to be solved. The information which attention tries to "grasp" can be both sensory-motor and cognitive related. As Laura Ermi and Frans Mäyrä [10] indicate: "The challenges of gameplay seemed to be related to two different domains: to sensomotor abilities (…) and cognitive challenges".

The sensory-motor information is related to the various in-game interface elements that player must learn and also to the combination of keys or buttons that player must press in a particular moment, in order to succeed. When, for instance, in *God of War* (SCE, 2005), Kratos enters a room and faces a boss, the player gets into a situation where selective attention is activated, through its sensory-motors filters: in order to hit the most powerful blows and reach her goal – efficiently defeating the boss – player must constantly review her energy level, the boss' energy level, the amount of special powers available to her, her position in the game virtual space, etc.; all these information shall be displayed through the game interface (sensory information). Besides, she must constantly figure out which button sequences and combinations to press and thumbsticks to move (and in which direction) at a particular moment (motor information).

The cognitive information refers to the information requested in puzzle solving or challenges that demand a greater mental (and less sensory) work by the player. In this case, this information will help strategic and logical thinking. When solving a puzzle, all her attention will be directed to this task. The cognitive processes shall automatically filter sensory-motor information that is not useful to the performance of the task.

Thus, these two layers of information (sensory-motor and cognitive) comprise the information requested by the selective attention, a cognitive operation that is activated in what we call operational immersion.

Sustained attention

Sustained attention – or vigilance – helps to maintain goals over time. This type of attention would not occur in parallel with selective attention, and would be related to the expectation state. We believe that during the gameplay, this type of attention is activated when the fiction component is working foreground; this occurs when the player (and her character) is following the game narrative course, for instance exploring the game virtual world, when no particular element (puzzle or challenge) requests her attention.

During this period, the player has the possibility of monitoring many sources of information without an efficiency loss [21] like, for instance, the game environment, which includes scenery, objects details, dialogues, and even soundtrack: elements that concurs to the player engagement and involvement to the game atmosphere and universe and, also, to the narrative development. This sustained attention is only possible to be kept as long as no critical target appears (new puzzle or challenge), when selective attention shall return to work foreground. Besides, sustained attention relates to the alert state, the so-called vigilance.

In order to keep a good pace in gameplay, the game construction itself shall be in charge to balance action (puzzle or challenges) moments with narrative (expectation) moments [13]. In fact, it is exactly during expectation moments, when sustained attention is much present, that the game can evoke player immersion through narrative elements, not excluding sensory (visual and auditory) appeals, putting the player in a state of anticipation of the next critical moment, thus making her involved in the game flow [9, 13]. Thus, during a complete gameplay – that is, since the very moment the player starts a game until she stops to play – what one sees is a constant shift between operational immersion and narrative immersion, as well as an alternating state between selective and sustained attention. This is what we call the gameplay alternating immersion – and attentional – modes.

Control and magic circle

Finally we relate the third component of attention, control, to the magic circle concept, taken as a mediation element – a cognitive process – between player and game, as previously proposed. As already seen, control, or the executive function, is responsible for distributing the amount of attention to each concurrent task, according to their priority.

During gameplay, control shall be in constant work, managing the amount of attention given to the game elements (internal elements – rules and fiction) and also the amount of attention given to the actual environment elements (external elements). As Juul [16] puts, the action of playing a game is composed both by the relation between the player and the game and also by the relation between the player and the real world. In fact, the player shall be located in a physical space, which is necessarily external to the game, being hit at every moment by a great amount of sensory and cognitive stimuli, and thus must avoid these stimuli to keep immersed in the game [3].

At the same time, she may have to answer to some of these external requests, like, for example, a phone call or her mother asking her to have dinner. Here, we lay one central question in order to better understand the magic circle as a mediation element: if the player attends to any of these external requests, will she get out from the magic circle and come back to her ordinary life?

We would argue that not; that, as a mediation element, the magic circle, through *control*, directs part of the player attention to that request, without completely draining attention from the game. In other words: in spite of the player, at this moment, relate to an external element, she will not leave the magic circle; rather, she will be on an outer position on the immersive scale. At this moment we recall the idea that immersion and attention are directly and graded related, and we propose that both are responsible to the player "position" in the magic circle gradient scale. Summarizing our proposition, the magic circle, through attentional control, manages the relation between player and game, in a gradual scale between less immersed and more immersed in the game (and respectively more or less "present" in real life, "outside" the game) (Figure 1).

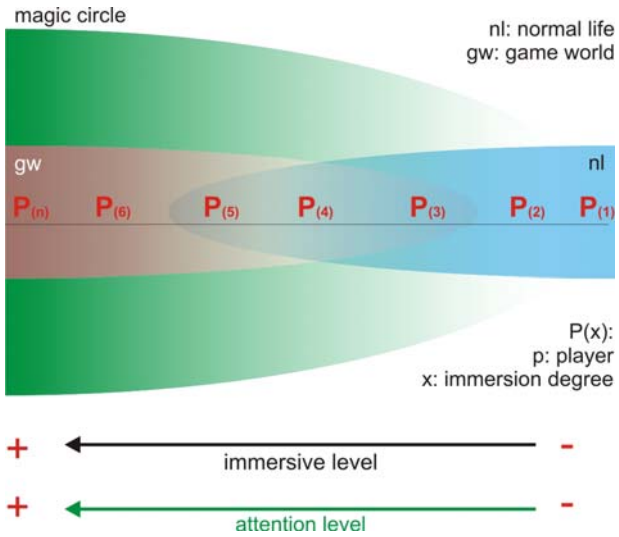

Figure 1: Magic Circle Diagram

CONCLUSION

Our intention was, with this paper, to offer a good set of literature appointments concerning the magic circle, which incorporates not only its classic and mandatory understandings – especially those offered by Huizinga, Salen and Zimmerman and Juul; and also append to the list a wider understanding that harmonizes the classic ideas with some ideas from cognitive psychology. We do not seek to refute the established patterns used by video game studies, or suggest that they need to be rewritten – but merely to offer a different understanding, that aims to improve the intersection between the game studies and both the areas of social communication and cognitive psychology.

Thus we question the magic circle concept, as defended by many authors with its "binary" boundaries (inside-outside the magic circle). In our understanding, the magic circle would work much more on the cognitive level, re-signifying the context where the player is located – the relationship between player and space, time, objects and digital information flow, concerning the game; it would work not towards an exclusive in-out dichotomy, but rather through gradients that take to a higher or lesser immersion in the game.

Finally, it is important to notice that, since we are working with theoretical notions, future research should concern empirical experiments, in order to gather the amount of data necessary to prove our propositions.

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