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Crossing the borders of the magic circle: immersion, attention, and videogames

Atravessando as bordas do círculo mágico: imersão, atenção e *videogames*

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Abstract *This paper proposes a discussion of the magic circle, an often debated concept in recent years in the context of games in general, especially video games. Through dialogue with the authors of game studies, such as Johan Huizinga, Katie Salen and Eric Zimmerman, as well as cognitive psychology authors that discuss the issue of attention, we argue that the magic circle, instead of separating fiction from reality, as advocated by several authors, functions as a cognitive structure for mediation, whose existence happens in gradual and differentiated ways, according to the operation of immersive and attentional processes between the player and the technological device, in this case the videogame.*

Key-words: *Magic Circle; Immersion; Attention; Videogames*

Resumo *Este trabalho propõe uma discussão sobre o círculo mágico, conceito bastante debatido nos últimos anos no âmbito dos jogos em geral, e em particular dos* videogames. *Através de um diálogo com autores dos* game studies, *como Johan Huizinga e Katie Salen e Eric Zimmerman, assim como com autores da psicologia cognitiva que discutem a questão da atenção, argumentamos que o círculo mágico, ao invés de separar ficção e realidade – conforme defendido por diversos autores – funciona como uma estrutura cognitiva de mediação, cuja existência ocorre de formas diferenciadas e gradativas, de acordo com a operação de*

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processos imersivos e atencionais entre jogador e dispositivo tecnológico, neste caso o videogame.

Palavras-chave: *Círculo Mágico; Imersão; Atenção; Videogames*

Introduction

If we wish to understand the processes of communication and contemporary culture production, we need to recognize that videogames have long abandoned the status of just teenage fun, and appear in the *entire* cultural spectrum. Nick Yee (2014) has various figures to illustrate this argument. Throughout the world, thousands of designers and developers take ownership of videogames for various purposes - their consumption follows the dynamics of mediatization: it is pervasive and is in everything we consume; from the movies we watch at the cinema to the evening news. The era of Zelda and Mario has passed - the era in which it was just childish fun. Currently, we walk toward a panorama in which electronic games can have an important status, similar to what backgammon and chess had during the Enlightenment.

Of course, at that time, even those games, with so much complexity, were confined to the status of unproductive leisure, of subservience to modern man. The question that is present here is, can we, today, perform a purification operation like this? Serious discussions about where videogames become art have been held continuously, and even the Museum of Modern Art in New York (MoMA) decided that the first games that were sold *needed* to be preserved.

Nevertheless, we play everywhere: on our mobile phones, on our social network profiles, we joined point programs, we comment on forums, newspapers, and gamefied electronic magazines - transformed into a game, or that holds game elements.

Nevertheless, in Brazil, videogame studies are distributed sparsely in an interdisciplinary spectrum which deprives them of the status they need. Technicist and philosophical approaches differ from each other when the crucial point is that the game be seen as the *hybrid* that is - a product that was born in the midst of teenage fun, but becomes of age and starts - *starts!* – to develop questions about their ethics and aesthetics; to flirt with radically different genres than what came before.

In this sense, the purpose of this article is precisely of an interdisciplinary order: it seeks to develop a model for understanding the idea of

the *magic circle* (SALEN; ZIMMERMAN, 2003; HUIZINGA, 1938) that is linked to the discussions in the field of communication. Above all, we seek this practical-theoretical connection when problematizing cognitive processes that are linked not only to the epistemological issues in the field, but mainly to its *praxis* - processes identified in journalism, advertising, during interaction, and on social networks. The article articulates the discussion about the idea of the magic circle and its connection to the concepts of immersion and attention, pointing to an understanding of the relationship between the individual and the game that enters into dialogue, in an instrumental fashion, with the discussions about the cognitive processes of communication.

Magic Circle

The modern character of the classic works in the field of game studies gives "the game" a necessarily dichotomous tone: Huizinga (1938) and Caillois (1958) do not believe in the possibility of reconciliation between a "not serious" activity and useful life. An adult and responsible human being does not play, except due to a corruption of an activity (CAILLOIS, 1958). But children must do so, because playing is natural for children; it is a feature that it is essential and unavoidable (HUIZINGA, 1938).

It is not uncommon to find this type of discourse in the work of the two aforementioned thinkers, but it is intriguing (and worrying) how this type of idea still exists when addressing in the way the contemporary press treats the spheres of work and leisure activity - *normal life* and *games*. Even if, in its multiple representations (board games, videogames, RPGs), the game is ubiquitous, it still maintains an image of being silly, of belonging to a juvenile world.

For Huizinga (1938) and Caillois (1958), a game is the creation of a so-called "other" place in space-time where the playful activity develops. Huizinga in his *Homo Ludens*, called this para-reality the *magic circle*, especially by emphasizing that the activity developed there would completely ignore the outside world. Sports are a great example of this

occurrence, since they have lines delimiting the field of action in which it the activity takes place; even soccer played on the street, bounded by sidewalk curbs, and where the goal is formed by pre-positioned flip-flops, follows this dynamic.

In 2003, Salen and Zimmerman published their treatise on the development and analysis of the processes that make-up the game - from its analog support, commonly represented by cards and boards, and their digital representations, the electronic games. For this, the authors returned to Huizinga's idea, stating it in a functional manner. So the idea of game as an activity was associated with the *magic circle*, inspired by a passage from *Homo Ludens*, by Huizinga (1938).

Although it is based in one of the classic treatises about the relationship between culture and playful expression, the idea developed by Salen and Zimmerman (2003) suffered considerable criticism over the past ten years. These, however, served more to ignite the discussion about ideas regarding secondary space, framing, or sacred moments, than to deconstruct the Salen and Zimmerman proposal (2003). In this sense, we should consider the idea of transposition between realities supported by Salen and Zimmerman (2003, p. 97) when the authors question the required psychological attitudes of a player when he is about to start a game.

This idea - if applied broadly - can be considered a reference to the already quite outdated understanding of the reality-cyberspace relationship as a dichotomy; a relationship that has been called into question by the cyber-culture theories for some time - and most prominently represented by the idea of the "tethered self " by American psychologist Sherry Turkle (2008). Therefore, we are led to the following question: is it valid to speak about a barrier between realities - or between reality and a game - that needs to be broken?

Maybe there is, if we consider videogames where the narrative essence becomes more perceptive than the rule structure; games that point to the need to deal with particular sensory experiences, which would assume a type of absorption of the player into the game (MURRAY, 1997).

The same can no longer be said when we address other categories of contemporary games such as pervasive games, alternate reality games (ARGs), and MMORPGs, which work to effectively 'blur' the boundaries between 'normal life' and the fictional world.

Thus, the main idea would be to not consider the magic circle as something that necessarily encapsulates the player, suppressing their daily space-time, or projecting them into an alternative zone. In opposition to that rationale, we chose to consider the existence of the magic circle - owned by the game structure - as a *mediating element*, which works to facilitate the player's dialogue between the game and normal life.

This mediation, in turn, may be presented either fluidly, by drawing boundaries which appear blurred in the sense that they cannot be fully identified, allowing fiction and reality to meet, or it can be presented in a more solid manner, actually causing the user/player to experience a sense of displacement, of spatial-temporal suppression, through an immersive process.

Therefore, our proposition is that the magic circle does not effectively separate the 'game world' from everyday reality, but first, it is established as a principle of mediation, as discussed previously by (AUTHOR), helping the player handle different sides of the same universe - not *two universes*. This proposal leads us to a more specific understanding: although we can refer to the game as an object - that is, as a symbolic good that is produced and marketed - you need to consider nuances of interaction between the game and the individual. The formation of space-time, which is inherent to the game as an *activity*, demands the interaction between subject and object.

Hence the proposal by Juul(2008) that the magic circle is formed, not only by the structure of rules, but also by players who are called upon to keep the *world illusion* functioning, in a shared experience contract - the borders of the magic circle, therefore, are negotiated and defined by the players. Therefore, it is formed the moment that the game *object* becomes the game *activity*, thus evoking the presence of the interagent

so that meaning is produced, the magic circle can be understood as a mediation structure since it is not space limiter, or a transport mechanism to another dimension, but rather, the contact point where "normal life" (HUIZINGA, 1938) meets the "other place".

The structure of the game, with its ground rules and codes of conduct, has this quality of explored indulgence in the analogy between consecrated spaces and game spaces. This quality appears exactly the way players explore, they appropriate and adapt to the rules. This adaptation varies, especially according to the essence of the game - in a soccer match between two teams of five, for example, stopping ten players to answer the phone or check the weather is not feasible; in an ARG (Alternate Reality Game), since the relationship with time and space is eminently different from the relationship experienced in a sport like soccer, the indulgences are accepted.

According to what was discussed in relation to the concept of the magic circle, we can see that mediation takes place in two distinct dimensions: the first relates to the game as an *object* - and symbolic good that is built and offered for consumption - and is directed towards the technical principles involved in their creation: its structure of rules and its narrative structure, which are the elements that condense the essence of this dimension; the second dimension relates to the way the game is presented at the time it is played - the game as *activity*; when it acquires players, and thus begins the processes of appropriation and adaptation that are common to the relationship between men and objects. These two dimensions of the game - dimensions that form the understanding of the consecrated place, and therefore, the understanding of the magic circle, will be given greater attention in the next section.

Elements of the Game Logic Composition

The structure of the game takes place in two axes, in which the first (i) will consider its constituent aspects: rules - which make up the game's logic; and fiction - in the figure of narrative worlds, diegesis - supported by those. The second axis (ii) deals with the eminently social aspect

of the game - how the players take ownership and adapt to what is offered by the first axis. The understanding of the game from these two approaches is a direct consequence of the game definition developed by Juul (2005). The author ensures, with his division, a higher quality of differentiation for game studies - studies that may be centered in the system - that treat the *game as an object* - or in relation to society and the world - treating the *game as an activity*. In this discussion, we will examine the first axis, focusing on how the immersion processes experienced by players can take on aspects that are sometimes directed towards the rules, and sometimes toward the narrative.

The game and an object: Rules and Fiction

From the work Juul (2005), an understanding of the game as being composed of rules and fiction is the result of a discussion that dates back to the late 1990s, when Espen Aarseth (1997) published his treatise on the systematic and interactive aspects of certain types of text - cybertexts, for the author - and Janet Murray (1999) published her treatise on the dramatic aspect of the new aspects of the media. The two treaties, although not the only ones defending their respective axes, are the most significant, and therefore the most frequently cited when defending their respective axes: that of ludology, in the case Aarseth's work, and the narratology, for Murray's.

Some authors see video games as a new form - an expansion - of the traditional narrative. The problem in analyzing the video game exclusively from such an argument is that it is missing a very simple element of key importance in the research process: taking into account that videogames are, after all, games. This existing playful element - whether the presence of the agonistic perspective regarding the simple rules structure, which call for interaction - are features that are not present in other entertainment media - such as film or television. Moreover, the narratives constructed using the computer have crucial differences from their media counterparts: they "tend more toward the more open form of the game (...) than toward an irreversible sequence of events that

marks the more conventionally known narrative experience in literature and cinema "(MACHADO, 2002, p. 2).

The open form that Machado speaks of, refers precisely to the fact that was mentioned earlier: the interaction, the participation, is not an option in the game: without it, the narrative experience does not exist. Unlike film or literature, in videogames, user intervention is "not only desirable, but even required" (MACHADO, 2002). The graphical structure present in the game would just be there to make sure the system worked, and that it could be decoded by the person interacting - with no apparent correlation between any factor of the outside world and the game.

These premises do not exclude the existence of a narrative in a game. They just consider that this element, if present - and it will always be, a greater or lesser role, as pointed out by Juul earlier - is contingent upon the ludologic structure of the game. Thus, according to the author, playing becomes much more important than experiencing the history, or see hits formation - the development or personality - of one or another character. However, one must consider that after describing their gaming sessions, the player will narrate the facts so that their accounts typically take the form of a story.

Although Frasca (1999) proposed an approximation between the theories, the most significant effort to bring these axes together was made by Juul (2005). Moving away from the approach advocated previously, the author harmonizes the objects of study for each of the perspectives - fiction and rules - overlapping them into their existence. Let us now examine more closely the elements that are part of the game as an object: rules and fiction.

Rules

According to Juul (2005, p. 55), it is necessary to assume that, among other features of the game - such as the interaction between players, the competition, or team work - the rules constitute one of the aspects from which draw pleasure upon entry , experiencing a sense of completeness by properly dealing with a challenge they establish.

According to Bernard Suits (1978, p. 34), the games only exist because the rules prevent players from using more efficient means to achieve their goals. The interpretation Juul (2005) makes regarding Suits' statement denotes an application geared toward sports - a high jump competition, for example, won't allow you to use a ladder to jump higher - stressing that this would be a more efficient way; but even partially agreeing with the Suits' application, Juul rejects the interpretation that rules are only limitations - interpretation supported by the work of Salen and Zimmerman (2003). "Rules are 'instruction sets', and following these instructions means doing what the rules require, and nothing else" (SALEN; ZIMMERMAN, 2003, p 122.). For Juul (2005), the rules do specify constraints, but they also help to create specific actions that have meaning within the game world, but that in "normal life" (HUIZINGA, 1938), do not make sense. This is true, for example, in checkmate in a chess game or a captured piece in a game of checkers. Thus, another view of the existence of the rules is that they help to give meaning to the activity - they make sense, giving the game a minimally predictable framework for how to proceed.

Fiction

While every game has rules, often we come across games that, beyond rules, also design a fictional with subordinate controlled characters, scenarios, and actions taken during the game. According to Juul (2005, p. 121), rules and fiction compete for the attention of players - making them complementary, although asymmetrical. The asymmetry pointed out here is regarding the fact that one can speak about rules without addressing the subject of fiction, but although the games - especially videogames, but they are the only ones - are characterized by the potential projection of a world, it is impossible to deal with fiction in games without addressing their rules. Juul (2005, p. 123) points this out when he mentions that, when referring to *incoherent worlds* - worlds in which the narrative does not explain what happens in the game, and the only thing that can that is the rules.

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

Immersion, attention, and videogames

Jennett *et al*. (2008) state that the immersive processes of videogames are different that those occurring in places such as the cinema, or in virtual reality systems. Factors which immersion depends on, such as motivation, empathy, and atmosphere, occur differently in the different media cited here. However, beyond these factors, our argument is that *attention*, a concept that has raised divergent opinions since at least the late 19th century, is one of the key pieces to understand the immersive processes in all these media, especially in videogames. Therefore, the hypothesis of this paper is that the immersive processes in videogames are directly related to certain types of attention by the player, and that these processes (immersion and attention) happen gradually.

Immersion and Attention as Gradual Experiences

Emily Brown and Paul Cairns (2004) define immersion in videogames as an experience that occurs gradually. According to the authors, the player, from the beginning of his interactive experience with the game, will go through various stages, related to immersive levels, until he reaches the maximum level of immersion, which would be the sense of presence. These stages are, according to Brown and Cairns (2004), engagement, engrossment, and total immersion. To move from one stage to another, the player must overcome certain barriers, which "emerge from a combination of human, computerized, and contextual factors" (JENNETT *et al*., 2008).

The first stage, engagement, represents the lowest level of involvement with the game. The barriers to entry at this level, according to the authors, are access and time investment. Access refers to a player's preferences for a certain type of game. "If they [the players] don't like a

certain style of game, they won't even try to engage (BROWN; CAIRNS, 2004)." The time investment refers to the energy expended, from learning the game until its end, and is directly proportional to the immersion provided by the game.

Overcoming these barriers, the player is already engaged in the game, and to reach the second stage, engrossment, he should overcome the barrier of the *game construction*, which refers to its look, interesting tasks, and the plot. If these characteristics have not been approved by the player, i.e., if he perceives failure in any of these requirements, it is unlikely he will reach the stage of absorption, which already expects greater involvement with the game.

At this stage, according to the authors, the player has already released lots of time, energy, effort, and attention - he will already be "less aware of his surroundings and less aware of himself than before" (BROWN & CAIRNS, 2004). One the barrier of game construction is overcome, with the player absorbed, the next barriers to be overcome for the player to reach full immersion are (i) *empathy* and (ii) *atmosphere*. (i) *Empathy* refers to the feeling of being in the place of the main character, the one controlled by the player himself. (ii) *Atmosphere* refers to the combination of visual elements, sound and plot. According to Brown and Cairns (2004), these elements must be "relevant to the actions and location of the game's characters" because this way, the player will allocate more attention to these elements and, "the more attention invested, the more immersed the player will feel."

Brown and Cairns mention attention as a component of the immersive processes in videogames, present in all these stages in a gradual way. Roger Caillois (1958) in his classic work *Les jeux et les hommes*, had already mentioned the importance of attention in recreational activities. In fact, if such recreational activities include cognitive and sensorimotor processes, as pointed out by Ermi and Mäyrä (2005), attention must be seen as one of its main components, since it is directly related to these processes. In addition to these authors, other videogame researchers confirm a close relationship between attention and immersion, and its

gradual correlation (JENNETT *et al.*, 2008). Also, other authors argue that attention is a cognitive process subject to intensity and a gradual scale (MIALET, 1999). Thus, according to this perspective, it is possible to talk about being *more attentive* or *less attentive*.

In the following section we will introduce some definitions and classifications about attention, based on some authors of cognitive psychology, in order to better relate attention to immersion and its types and levels.

Attention: Selective and Limited

One of the first great researchers to systematically address attention was William James. He wrote his first definitions of the subject in his treatise *Principles of Psychology*, in 1890, where he criticized the superficial approach given to attention by authors like Locke and Hume (JAMES, 1890). However, only in the mid-twentieth century did studies of about attention gain more importance, based on an approach undertaken by cognitive psychology (MIALET, 1999).

One of the common denominators of the various definitions of attention lies in the fact that it is a process (or set of processes) that contributes to the selection of some information over other information. This notion is already in the writings of James: for the author, attention means "taking possession through the spirit, in a lively and clear manner, of an object or train of thought, among all those that seem to present themselves simultaneously" (James, 1890, p. 403-404). Jean-Paul Mialet (1999, p. 37), in line with James, says: "It's is attention's selective function, corresponding to a process of sorting through which certain information from the environment or the internal real is analyzed and perceived, while other information is ignored. This sorting activity is the most characteristic aspect of attention." According to Cohen (2006), this selection is a necessity, due to the limits of the human brain to process information.

Another widespread idea among attention studies is that we have a *limited* amount of attention to "spend" (JAMES, 1890; MIALET, 1999; PARASURAMAN, 2000); therefore, attention provides a selection process per se (it is not possible to be aware of everything at the same time). Thus follows another proposition: that attention depends on the intention of the subject, on a choice; it is not, as Locke and Hume assumed, the simple fruit of experience, something given *a priori* (JAMES, 1890; MIALET, 1999, p. 16).

Raja Parasuraman expands the concept of selection and places it as *one* of the components of attention, alongside *surveillance* and *control*. According to the author, the selection is needed due to processing and computing limitations of the human brain. In his words, "Without this selectivity, organisms would be poorly equipped to act consistently in the face of competitive and distracting stimulus sources in the environment" (2000, p. 7). Also according to the author, all these components of care (selection, monitoring and control) are intended to serve "tasks aimed at targets" (PARASURAMAN, 2000), which involves understanding attention as a "tool" at the service of intentionality, an idea that is already quite dear to James, according to which attention allows us to better "perceive, conceive, distinguish, and memorize" (JAMES, 1890).

Types of Attention

Another common denominator is the fact that many authors treat attention as a process that takes place in different ways, thus resulting in different types or forms of attention. Due to the complexity and plurality of performing this taxonomy (MIALET, 1999), and in order to better understand the different forms of attention and their relationship with the immersive processes of videogames, this paper will adopt Parasuraman's suggestion, also shared by other cognitive psychology authors (Cohen, 2006), which understands attention through three key functions: selection, surveillance, and control.

Immersive and Attentional Modalities in Videogames

As stated above, according to Jesper Juul (2005), videogames are basically made up of two components: rules and fiction. During gameplay[3], there will be times when the rules will be acting in the foreground, while fiction (narrative) will be in a state of "suspension"; and times where fiction (narrative) will be acting in the foreground, while the rules component will enter a suspended state. In each of these moments, a specific type of attention - selective or sustained - would be active.

Therefore, based on the statements of other authors (ERMI; MÄYRÄ, 2005; JENNETT *et al.*, 2008), there are at least two types/modalities of immersion during gameplay, which would be directly related to the foreground component during a particular moment of the game - "rules" or "fiction." We will call these types of immersion (i) *operational immersion* and (ii) *narrative immersion*. Furthermore, we believe that these types of immersion are related to the player's attention modes in each of these moments - selective attention and sustained attention, respectively.

Selective Attention

Selective attention is what contributes to the performance of specific tasks within a short period of time. It is when the filtering sensory information from the environment happens, so that only the information relevant to the completion of the task is perceived and processed, thus aiming to achieve an "improvement of the corresponding cognitive efficiency" and an "optimization of information processing" (MIALET, 1999).

We believe that during gameplay, this kind of attention is activated when the rules component is in the foreground; for example, when the player is challenged by an obstacle or challenge to overcome. At this time, his attention is focused on that challenge, therefore reducing the attention to the narrative and the "macro" environment around him

[3] In the videogame context, gameplay refers to the interactive experience between the player and the game.

- both in the game and in the physical environment where the player himself is located.

Thus, *selective attention* comes into play in order to gather the most important information in order to achieve the objective or overcome the challenge. At this time, the player is involved (immersed) in the game, to resolve the challenge before him. This information may refer to both a sensorimotor "layer" and a cognitive "layer." In the words of Ermi and Mäyrä (2005), "The challenges of gameplay seem to be related to two different domains: sensorimotor skills (...) and cognitive challenges.

Regarding the sensorimotor layer, the information refers to the various elements of the game interface that the player must learn, and also the combination of keys or buttons that the player must press at a given time, to solve the objective/challenge. When for example, in God of War (SCE Studios Santa Monica, 2005), Kratos enters a room and finds himself face to face with a boss, the player is faced with a situation where his selective attention comes into play through his sensorimotor filters: to achieve the most powerful blows, seeking his objective - to defeat the boss efficiently - the player must constantly evaluate his energy level, the energy level of his opponents, the amount of special powers he has available, his location in the virtual game space, etc.; information that is present in the game interface (sensory information). Furthermore, he should be constantly evaluating which combinations and sequences of buttons to press and joystick handles to move (and in which direction) at a given time (motor information).

The cognitive layer refers to information required to solve puzzles or challenges that require greater mental exercise (and less sensory) of the player. Here, this information will serve strategic and logical thinking. When solving a puzzle, all his attention will be directed to this task. His cognitive processes should automatically filter sensorimotor information that is not useful in performing the task.

This way, these two layers of information (sensorimotor and cognitive) include the information selective attention requires, the cognitive operation that comes into play in what we call operational immersion.

Sustained Attention

Sustained attention - or *surveillance* - is what helps maintain the objectives over time. According to Parasuraman (2000, p. 7), this does not occur at the same time as selective attention, and relates to a standby state. We believe that during the gameplay, this type of attention is activated when the fiction component is in the foreground, i.e., when the player (and his character) is following the narrative course of the game by doing things such as exploring the virtual world of the game when no specific element (puzzle or challenge) requires his attention.

During this period, the player has the ability to monitor various sources of information without an efficiency loss (PARASURAMAN, 2000), for example, his environment, which includes landscape details and game objects, dialogues, and even its track sound: elements that contribute to the ambiance and involvement of the player in the game's world, and also to develop its narrative. Sustained attention can only be maintained as long as a critical target doesn't appear (new puzzle or challenge to be overcome), when selective attention will return to the foreground. Furthermore, sustained attention goes back to a state of standby or alert, therefore it is related to surveillance.

In order to maintain the pace of gameplay, the game must be responsible for maintaining the balance between moments of action (puzzles or challenges) and moments of narrative (of waiting) (INCE, 2006). In fact, it is precisely during times of waiting, where sustained attention is more present, that the game can explore immersion through the narrative elements, not excluding sensory appeals (visual and audio), setting up the player to expect the next critical moment, thus leaving him involved in the game flow (INCE, 2006). This way, during a complete gameplay, that is, from when the player starts the game until its end, what you see is a constant alternation between moments of operational immersion and narrative immersion, as well as an alternation between selective and sustained attention. This is what we call alternate types of immersion and attention "gameplay."

Control and the Magic Circle

Here we will address the third component of attention, control, to the concept of the magic circle as a mediating element between the player and the game, as previously suggested. Control, or executive function, is responsible for the distribution of the amount of attention given to each task, performed at any given time, according to their priority (COHEN, 2003).

During gameplay, control is in constant operation, managing the amount of attention paid to the game and to the external elements outside the game. As Juul (2005) stated, the action of playing a game is made by the relationship between the player and the game, and also the relationship between the player and the real world. In fact, the player is located in a physical location outside of the game, and is bombarded by a huge amount of sensory and cognitive stimuli at all times, and should thus avoid these stimuli to stay immersed in the game (BROWN; CAIRNS, 2004).

At the same time, he may have to answer some of these external requests, such as a telephone call, or an invitation from his mother to sit at the dinner table. Here is a central issue for understanding the magic circle as a mediating element: if the player responds to any of these external requests, will he come out of the magic circle and return to his everyday life?

We don't think so. We think that, as a mediating element, the magic circle uses control to direct part of the player's attention to that request, while keeping a portion directed towards the game. In other words, although the player is relating to an external element, he will not leave the magic circle, but will be in a more external position of the immersive scale. Here we return to the idea that immersion and attention are directly and gradually related, and we suggest that both are responsible for the "position" of the player on the gradual scale of the magic circle. Summarizing our proposition, the magic circle through attentional control, manages the relationship between player and game, in a gradual

scale from less immersed and more immersed in the game (and respectively more or less "present" in real life "outside" game).

Concluding Remarks

Our intention with this study was to provide a thorough literature review about the magic circle, which includes not only its classical understanding - especially those offered by Huizinga, Salen and Zimmerman, and Juul; but also to add a broader understanding that harmonizes the classical ideas with some cognitive psychology ideas. Our goal is not to refute the established standards used by videogame studies, or to suggest that they need to be rewritten, but only to offer a different understanding, which seeks to improve the intersection between game studies and the fields of both cyberculture and cognitive psychology.

Thus, we questioned the concept of the magic circle, as defended by several authors, with their "binary" borders (inside-outside the magic circle). We believe that the magic circle would work much more on the cognitive level, giving new meaning to the context in which the player is inserted - the relationship between player and space, time, objects, and the flow of digital information, regarding the game; it does not work as an exclusionary inside-outside dichotomy, but through levels of greater or lesser immersion in the game.

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