Ludicity – a theoretical term

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Abstract:

This article makes a unique contribution to the field of game, playing-games and play studies in affirming the consequential nature of ludicity, which in turn allows ludicity to emerge as a concept. The multiplicity of existing theories on game-playing and play, which allude to ludicity and which frequently make interchangeable use of the two terms, justifies the need for "ludicity" as a term of reference with the purpose of clarifying and better understanding ludicity as significant human phenomenon. This article will advance a definition of ludicity as a socially-structured concept, through the presentation of studies developed by the author in the communications field.

Keywords: ludicity, play, playing-games

1.   Introduction

This paper proposes the concept of ludicity in the hope of contributing to the delimitation and conceptual clarification of ludicity as a human and social phenomenon that is not as well understood as is commonly supposed. This lack of understanding becomes apparent if one reflects on the uses for the term "ludicity" (*ludicidade*) that are most commonly employed by Portuguese-language speakers generally, as well by specialists from a number of fields. Both laypersons and specialists apply a number of terms to stand in for ludicity as a human and social phenomenon. These terms refer to the ideas of play, game-playing, recreation, leisure, and the construction of ludic or creative artifacts, both electronic and analog.

By clarifying ludicity as a concept, we will attempt to locate the essence of this insufficiently understood and socially undervalued human and social phenomenon.

Thinking about ludicity is to think about the human condition (which is, in fact, ludic), to think about the various ways in which ludicity manifests itself, and to consider the work done on ludicity in various fields, namely, anthropology, sociology, education, technology, and communications, as well as psychology, which deals to a greater extent with ludicity's effects on human behavior than on the procedural effects of this essential component of the human condition.

Thinking about ludicity is to reflect on the diverse manifestations of a ludic condition that is socially fragmented in adults, being confined to childhood. In both cases, ludicity is poorly understood.

Thinking about the essence of ludicity is to seek out the human *labor* (Arendt 58) implied in play, game-playing, recreation, leisure, and the construction of ludic artifacts, or in other words, in the devising, willing, and realization (both pleasurable and not pleasurable) of ludic situations. It is to recognize and accept the consequences of considering ludicity as communication, learning, culture, and change, as described by Paul Watzlawick (Watzlawich 67), Bateson (Bateson 54,77,80) and Hall (Hall 79), among many other researchers working on the pragmatics of human communication.

Emerging from the self, ludicity can be understood as the self manifested in ludicity, Moreover, ludicity is always prior to its manifestation. In this way, ludicity resides primarily in peoples' relations and interactions, which occur in differing situations and against the varying backdrops of their particular manifestations, whether intra-personal, inter-personal, intra-group,

inter-group, intra-institutional, inter-institutional, or in society generally, or even in toys and games, the electronic and analog ludic artifacts that are constructed to induce ludic expressions or displays. Ludicity is communication, due to the fact that ludicity's varying manifestations gain their ludic character because of the initial pact established between individuals, which invests the behavior of the participants with this character. As Bateson states, "The message is play", and later questions, "The message is play?" (1954 and 1977:210) I understand that there are no ludic behaviors as such, but only varying behaviors that are described as ludic because of the ludic signification applied to them by their individual authors. Furthermore, I contend that ludic artifacts, whether electronic or analog, constitute means, supports, and messages in the service of ludicity.

2. The Historical and Philosophical Foundations of the Modern Understanding of Ludicity

We find the roots of the modern understanding of ludicity in ancient Greece. At the height of Greek civilization, around 500 BCE, ludicity played a role in the mythology surrounding the figure of the free man, through the idea of freedom. Consequently, this mythology was only extended to an elite, and was refused to slaves. Plato and Aristotle both recognized the value of play, leisure, and recreation, considering them as essential for human well-being and growth. (Plato 0; Aristotle 26)

The words *paideia* and *agôn* express two distinct forms of ludic expression. *Paideia* describes the play and action of children generally, as well as adult contests of strength, gymnastics, and flute-playing. For its part, *agôn* refers to collective games and to competition, in addition to alluding to physical, poetic and musical contests that, though competitive, did not, according to Huizinga, "deny their ludic nature". (1951:88)

Heraclitis, whose philosophical production dates from around 478 BCE, valorizes ludic expression, as evidenced in his Fragment 52, which relates the power of a child at play to time as a vital force. (Kirk and Raven 57:106) Likewise, St. Augustine, in 1536 BCE, makes reference to ludicity, in referring to play as the driving force of curiosity, of respect for others, and for life. (1990:38-50)

Throughout the twentieth century, various authors address the theme of ludicity, dedicating themselves primarily to classifying its manifestations, its associated activities, and its effects. In describing ludicity, some make primary use of the word "game", others of the verb "play", with members of both camps advancing theories in which the two terms are used interchangeably. Various older ideas on ludicity are invoked in advancing these theories, such as Schiller's theory of superfluous energy, which focuses on childhood play and judges it as aesthetic and vague. Spencer (1927) takes up Schiller's thinking, and defends games as a means for released energies to find expression. Groos (1901) is the primary author of the theory of preparation. Building on Darwin, Groos argues that games have a biological origin, and identifies children's games as a way in which the young prepare for practical adult life. In Carr's instinct-practice theory, games are the collective agent of organic development, in that they stimulate the functioning of the nervous system and facilitate the transmission of a series of nervous impulses. With Patrick (Patrick, 16), the theory of relaxation comes to the fore. Patrick recovers the idea of game-playing as recreation, building from the supposition that the individual is impelled to find opportunities for gratifying release in order to recover from the fatigue and tensions generated by work. Stanley-Hall's theory of recapitulation likewise draws on Darwin in making use of the word "game" to refer to recreation generally, and in considering games as instinctual, and as the products of a biological inheritance tied to human evolution. According to the author, who ignores the potential influence of social interaction, the child retraces the path of human evolution in the games he or she plays.

The questions of the classification of forms of ludic expression and of the recognition of their effects – in short the questions that define the modern vision of ludicity – play a key role in distinguishing some of most important intellectual theories advanced over the course of the twentieth century. For instance, Erickson, taking up and building on Freudian psychoanalysis, argues that play overcomes the pleasure principle. He presents play as an attempt by the ego to synchronize organic and social processes with the individual, and as having a general function of sublimation. Piaget advances a theory of cognition as applied to game-playing, relating a child's ludic expression to cognitive development, and contending that a child's games represent an autonomous reality. Huizinga proposes a social and cultural theory, in which he offers that games are based in culture, and can be justified as ends in themselves rather than the means to achieve certain ends. Caillois, a disciple of Huizinga, provides a sociological theory that defines game-playing by way of a typology of the various forms of this activity. (Caillois 58) Vygotsky's socio-historical theory highlights children's interactive play as productive of internal changes insomuch as this play provides for "the creation of a new relationship between the field of meaning and the field of visual perception, or in other words, between situations as they are thought and situations as real events". (ibid: 118) Bateson's theory of meta-communication, building from the statements *"This is play"* and *"This is the Play"* presents a number of propositions for the clarification of ludicity as a social and human phenomenon. Lieberman argues that it is through play that humans better develop their own autonomy. (Lieberman 77) Finally, the theories of recreation and leisure advanced by Nash (Nash 60), Neumeyer and Neumeyer (1958), and Meyer and Brighthill (1964), take up the Aristotelian notion of the Human and its path toward happiness (Aristotle 26), in situating game-playing in the realms of recreation and leisure, and in stressing both its individual and social importance.

Confronted with the various, overlapping definitions of games, game-playing, and play presented in theories from a wide range of academic disciplines and orientations, I defended, in 1998 and in the context of a Ph.D. dissertation, the use of the word "ludicity" as well as its associated conceptual meaning. In mounting this defense, I analyzed a variety of theories dealing with these themes, some of which were referenced above. In defining ludicity, I made use of Sigman and Cronen's ideas on the consequentiality of communication (1995), seeking in this way to contribute to the clarification and identification of ludicity in terms of its three indissoluble dimensions: its interactions with the human condition generally, its manifestations, and its effects.

3. Ludicity
The essence of ludicity can be located in the relational and interactive processes undertaken by the individual throughout his or her life, and in which he or she invests his or her actions with a ludic meaning. Emerging as it does from the self, ludicity *is* this self, as it reveals itself in a variety of distinct behaviors and objects, namely, play, game-playing, recreation, leisure, and the construction of ludic artifacts such as games and toys.

Ludicity as a phenomenon is consequential to humankind, indicating a quality and a state that are not just characteristic of childhood, but that are shared by all age groups.

Being consequential, ludicity is subject to the more general consequentiality of communication as described by Sigman (Sigman 95) and Cronen (Cronen 95), and does not merely apply to the individual as *homo ludens*, but also comprehends ludicity's multiple and varied manifestations as employed by individuals, as well as its effects on individuals involved in ludic situations.

In analyzing ludicity, three indissoluble dimensions of the phenomenon, which interact among themselves, can be distinguished:
i)   ludicity as part of the human condition, as constituted by the self from which itderives, and which in its location in the self exists as anterior to its manifestion in the world;

ii)   ludicity as it is manifested, as it is constituted as a consequence of the human condition, which is ludic, and in the various manifestations that derive from this conditions and from a diversity of human perceptions. These manifestations can be divided into the activities of play, game playing, recreation, leisure, and the construction of ludic or creative artifacts;

iii)   ludicity as its effects, brought about by the diversity of procedural consequences, and as the results generated by individuals interacting in ludic situations.

Significantly, it is impossible to understand ludicity as a concept if one confines one's analysis to one of its dimensions in isolation.

4. Ludicity's consequential nature

Drawing on the concept of consequentiality presented above, I affirm ludicity as the site in which individuals act on their ludic intentions, in the sense of both conceiving and manifesting actions. This intent results in the individual making various connections, which he or she manifests, criticizes, alters, and abandons. The connections constitute the initial pact that defines and structures the ludic situation.

Moreover, ludicity is distinguished from the multiplicity of consequences of the (ludic) human condition, as they are generated in ludicity's manifestations and effects. Ludicity is situated, as such, to a greater extent in the dynamic, inter-relational and interactive processes undertaken by individuals, who attribute a ludic meaning to their behaviors, than in the final effects of these processes.

The diversity of ludicity's manifestations, defined by such ideas as recreation, leisure, game-playing, play, and the construction of ludic and creative artifacts, betrays the working of various logics of interactions, whose distinctness from each other will become apparent in this analysis.

In accordance with the etymology of the word *consequentia,* which refers to the effect of an action (Machado 1981c:394), ludicity can be understood as an action that occurs as the result of a ludic condition. As such, the action is the consequence of ludicity to the extent that it partakes of the condition which generates it, that is, the ludic condition. The suffix "al", attached to the word "consequential" refers to a function, which invests the word with a new, pertinent meaning that is tied to its anterior condition – the human condition as ludic. In turn, the suffix "ity" of the word "consequentiality" indicates a quality, a state, or way of being that distinguishes itself from ludicity's multiple manifestations, and through which the self, in a variety of ways, reveals or presents itself, thus forming, transforming, and informing itself, and in this way constructing the corpus of messages of which it is constituted in and in dialog with the world.

Accepting the consequential nature of ludicity is a step toward a clearer, more comprehensive understanding of ludicity as the complex and enigmatic human and social phenomenon that it is.

5. Play, game-playing, recreation, leisure, toys, and words that allude to ludicity

The word "ludicity" has its semantic origin in the Latin verb *ludere*, that means "to act or exercise", and in the adjective *ludus*, that refers to this act or exercise. As such, *ludus* identifies not only the ludic as manifested in and by children, but moreover, the ludic in adults, as well as the activities undertaken by adults and the effects on adults resulting from *ludus.*

In Portuguese, the language in which I first formulated my thinking on these issues, there is no entry for "ludicity" in the dictionary. Nor does the word exist in English, French, German, Italian or Spanish. As was already mentioned, to speak of ludicity is to speak of the human condition, as well as of the diversity of ludicity's manifestations and effects.

With the aim of specifying what I mean by the concept of ludicity, I found it incumbent on me to identify those words in Portuguese that make reference to ludicity, though which fail to address or define the concept exactly. Following Wittgenstein's method, which is premised on the idea that in order to understand a word's meaning, one must understand its various uses, I affirm that the potential similarity of ludic manifestations cannot be grounded linguistically in the use of a single already-existing word for "ludicity", which does not exist in Portuguese nor in any of the other abovementioned languages, nor does the distinctness of these manifestations constitute a sufficient level of understanding of ludicity as an idea.

While the word "ludicity", or another word meant to encapsulate the conceptual meaning I attribute to ludicity, does not exist in Portuguese, I have identified five Portuguese words, each of which refers to a distinct ludic manifestation. These are, *brincar, jogar, brinquedo, recrear*, and *lazer*, which translated in turn as "to play", "to play games", "toy", "to participate in recreation", and "leisure".

Portuguese speakers make indiscriminate use of these five words in referring to ludicity, as do speakers of other languages. While this derives, on the one hand, from the polysemia and general functioning of language, it also is due to the diversity of perspectives and theories used to describe ludicity, each of which makes it own, unspecified references to these words ("to play" and "to play games", for example). In making unspecified use of these words, these theories fail to accurately delimit and properly comprehend the conceptual range of these words, and of ludicity generally.

Following Machado, in Portuguese the verb *brincar* ("to play") derives etymologically from *brinco*, which carries meanings of, "to fool around", "to entertain oneself", "entertainment", "to not speak seriously", "clever speech", "to play games", "to roughhouse like children", "repose", "to act irresponsibly", "to have sex", "to adorn", "to decorate or adorn excessively", "an object for children to play with", "pretty", and "toy", or in Portuguese, *foliar, entreter-se, divertimento, não falar a sério, gracejo, jogar, pular como os meninos, ócio, proceder levianamente, fazer coito, adornar, ornar excessivamente, objecto para as crianças brincarem, bonito,* and *brinquedo.* (1981b:417-418)

As is apparent, *brincar* refers to a host of meanings. One can attribute this linguistic confusion to the granting of the same meaning to distinct modes of behavior. One can also observe that *brincar* refers to behaviors that, depending on the context in which they are manifested, might be identified as distinct, and without recourse to a general term like "ludicity", and which may or may not conform with *brincar* as "to play".

In confronting this multiplicity, one also confronts the difference between positive and negative meanings, as well as the idea of physical activity, whether undertaken by adults or children, as well as the existence of the aesthetic object.

The verb *jogar* ("to play games") derives in Latin not from *ludus,* from the *jocare* and *jocu. Jocare*, in the Romance languages, serves as the origin of various words referring to games, such as *jeu* in French, *juego* in Spanish, *giuoco* in Italian, *joc* in Romanian, and *jogo* in Portuguese. As nouns, *jogo* and its neo-Latin counterparts refer to any and all activities undertaken for the recreation of the spirit, for distraction, for entertainment, in fooling around, as well as refer to toys, to making fun of someone, to doing something pleasurable, and even to things that inspire laughter, to playing sports, to astuteness, to dissimulation, and to fights and struggles. (Machado 81f:291-294)

In turn, the verb *jogar* refers, among other meanings, to giving oneself over to having fun or to play, usually with another person, to express, to speak playfully, to play audaciously, to play a sport, to harmonize or match one thing with another, or merely to play. (Machado: ibid)

The word *brinquedo* ("toy"), like the verb *brincar*, also derives from *brinco.* According to Machado, *brinquedo* can be defined as any object, or even game, that is designed for the amusement of children. (1981b: 418). In other words, the designation of *brinquedo* can be

applied both to objects that are expressly constructed for ludic purposes or for entertaining children, and to games; the word *brinquedo* does not specify which of the two possible applications carries with it the more exact meaning.

For its part, the verb *recrear* ("to participate in recreation"; "to entertain oneself") invokes many of the ideas covered by the previously analyzed terms, exhibiting a number of semantic similarities with them. *Recrear* has its etymological origin in the Latin verbs *recreare,* which in turn derives from *creare*, and which means, to make anew, to cause to grow (anew), and to cause to be born. In Portuguese, *recrear* means to make happy, to cause pleasure, to satisfy, to alleviate oneself or another from work by means of some distraction or entertainment, to have time off, to distract oneself or to play. Furthermore, the noun *recreio* ("recreation"), aside from reinforcing the meanings advanced by *recrear*, adds to these the dimensions of time and space, in that the work can indicate a pleasant or pleasurable place, time given to children for play, or the place where this time is spent. (Machado, 1981j: 178) As such, *recrear* might be said to refer to ludic activities occurring within or designated for intervals in a schedule otherwise dedicated to work.

Finally, the word *lazer* ("leisure") derives from the Latin *licere*, and means to be permitted or to be free, as well as to free time itself. In Portuguese, *lazer* refers to repose, as well as the ideas of wandering, free time, and rest. The semantics of the word highlight the idea of an action confided to the space and time of professional employment, though one may work under these conditions for one's own benefit. Leisure is associated with extra or additional time – that time "left over".

In the semantic relations that exist between these five words, a multiplicity of meanings becomes apparent. In Wittgenstein's words, there seems here to exist "a complex web of similarities that intersect and layer themselves on top of one another, revealing (on the one hand) conceptual similarities, (and on the other), similarities linked to particular details". Additionally, this web also includes relations of opposition or lack of resemblance. This fact, aside from a possible connection to the idiosyncrasies of the ludic phenomenon, might also have to do with the idea of language as an "available source of expressions which (as such) are very capable of lying. They only ask that certain structural rules be respected that, in not existing for any particular reason, mirror the way the world is ordered." (Hagage86: 192)

Keeping these ideas in mind, we can delimit the semantic boundaries between the ideas of play, game-playing, toys, recreation and leisure (*brincar, jogar, brinquedo, recrear,* and *lazer*) by defining familial axes formed from familial relations, as well as axes of difference, which distinguish the terms.

The methodology, suggested by Wittgenstein (Wittgenstein87:242-243), can serve to distinguish ludicity's various manifestations from each other. Figure 1 presents a diagram mapping the four familial axes as they intersect with the four axes of difference, and delimits the differences between the five words in question.

The familial axes are:
First axis – spontaneous ludic expression – spontaneous inasmuch as its participants experience it as such.
i) Second axis – ludic expression with previously determined rules – dependent on the interaction of the protagonists, according the previously established rules.
ii) Third axis – recreation – ludic expression situated at the intervals in the work day, and subject to a temporal logic based on useful labor.
iii) Fourth axis – leisure – ludic expression which is distinguished by the fact of time situating itself in terms of ludicity outside the space and time of employment. Linked to the experiencing of meta-time, created by individuals who attribute ludic meaning to its creation.
iv) Fifth axis – technical objects – ludic or creative artifacts; both electronic and analog (toys and games) conceived and produced to guide and promote ludicity's various manifestations.
The axes of semantic difference are the following:

i)   The first axis pertains exclusively to the act of play (*brincar*), with or without electronic and analog ludic objects. This emerges from the spontaneous, social expression of the active and cooperative freedom of its participants. It is automatically subject to a logic of "non-zero sum" social interaction, in which all can win or lose together, there being neither winners or losers. (Watzlawick, 1983: 117-121) The verb *brincar* is generally used synonymously with *jogar,* though this is not an exact match. For instance, *brincar* can be contrasted to *jogar* in that the former is not subject to rules, as are games and the latter verb.

ii)   The second axis corresponds to games and playing games (*jogos* and *jogar*), as socially pre-conditioned ludic expressions. There are regulated by a logic of "zero sum" social interaction, defined by the idea that "whatever I win you lose", and vice versa. As such, winners and losers do exist under these circumstances (Watzlawick, ibid), which include, among other types of competition, electronic games, sports, traditional games, and televised contests. In accordance with the first two familial axes and axes of difference, *jogar* and *brincar* can be considered as clearly distinct manifestations. Contrary to popular perception, here play (*brincar*), like game-playing (*jogar*) is subject to rules. However, the rules that govern play are determined through a process of ludic communication and through the collective participation of those involved, and are perpetually being readjusted, transformed, and substituted by other rules. This is so because of the agreement – the ludic pact - explicitly or implicitly made at the beginning of the game, which subsequently organizes the game. Subject to a non-zero sum logic, play reproduces the maxim, whatever I gain you gain, and whatever I lose you lose. Play is focused to a greater extent on the process than on the result, given play's propensity for unpredictable results. On the other hand, game-playing is a ludic situation, predictable and with previously established rules. Game-playing is focused on final results/effects and which is guided by the logic of "whatever I win you lose, and whatever you win, I lose", which implies winners and losers.

iii)   The third axis corresponds to the act of relaxation, or the consumption of superfluous energy, which occurs during the intervals between non-ludic activities like work and study. In other words, this axis conceptualizes relaxation as the spending of accumulated energy, and refers to the institutionalization of these intervals in schools, at work, in businesses, etc.

iv)   The fourth axis refers to leisure as the ludic use of time for one's own purposes. Leisure time is situated within and synchronized in relation to the following kinds of time: biological, individual, metaphysical, sacred, profane, and polychronic. Leisure invokes the idea of activity that frees the individual from the constraints of work.

v)   The fifth axis corresponds to the construction of ludic and creative artifacts, both electronic and analog (toys and games), as the products of the know-how of homo *faber.* These are technical objects (artisanal, industrial, or rationalized), constructed with ludic and creative use in mind, and invested with this type of meaning. This axis also includes objects that are transformed into ludic objects through the ludic action of the individual who, through play and game-playing, attributes ludic meaning to them.
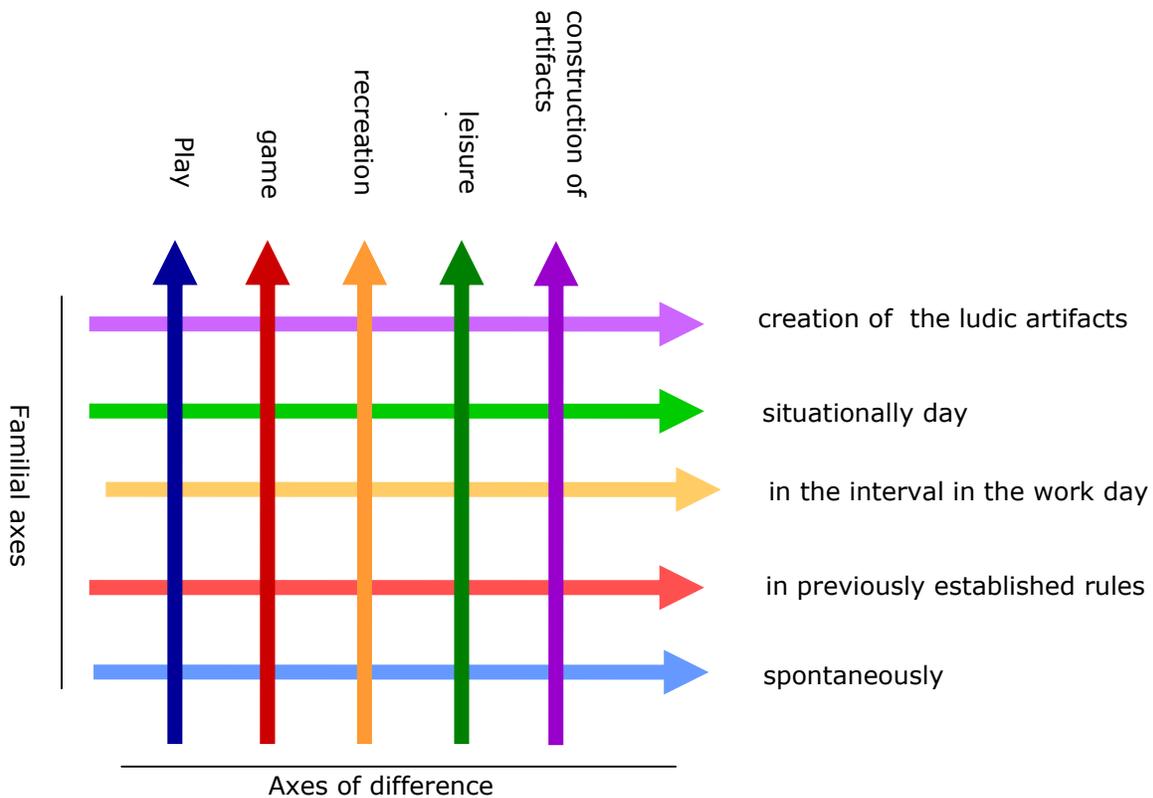
Figure 1: five conceptual and semantic axes used in analyzing Portuguese-language words which allude to ludicity - familial axes, as they manifest themselves: in the creation of artifacts; situationally; in the interval in the work day; in previously established rules; spontaneously. Axes of difference: play; game-playing; recreation; leisure; construction of artifacts.

6. Summary

Ludicity can be understood as an aspect of the human condition that is common to all individuals, which manifests itself variously in play, game-playing, recreation, leisure and the in construction of ludic or creative objects, both electronic and analog. These manifestations consequently generate the final effects of ludicity as they are experienced by individuals who participate in ludic situations and who attribute ludic meaning to their behavior. Ludicity's final effects occur in a number of contexts such as one's civic involvement, in competitions, as well as one's social, relational, affective, cognitive and creative abilities and attitudes.

Ludicity is the site of action in which ludic intentionality is produced in each individual in expresses him or herself in terms of ludicity. In doing so, the individual establishes relationships between this and his or her other, non-ludic experiences, criticizing, changing and reformulating them, in the context of the situation created in establishing the initial pact, which is, significantly, ludic.

Ludicity can be understood in terms of its three dimensions: its condition, manifestation, and effects. As such, ludicity is more than the consequences of the process by which it manifests itself, or of the specific nature of its effects.

The essence of ludicity can be located to a greater extent in the relational and interactive processes undertaken by individuals who invest their actions with ludic meaning, than in the end results of these actions.

The diversity of ludicity's individual and social manifestations, through recreation, leisure, play, game-playing, and the construction of ludic or creative artifacts (both electronic and analog) corresponds to differentiated logical levels of analysis as well as various types of ludic interaction.

The affirmation of ludicity's consequential nature allows for the articulation of a modern vision of the human condition *as* ludic, and opens paths for a clearer, more comprehensive understanding of ludicity as a human and social phenomenon.

Thinking about ludicity is to seek out what it means to be human in socially-mediated actions, such as games. It is to act, and not merely react, in accord with a recognition, comprehension, and acceptance of the consequences and effects of considering ludicity's consequential nature.

The possession of a concept to explain ludicity and a method for its observation represents a contribution to the promotion and defense of ludicity as a fundamental human right.

7. Sources Cited

[Arendt91] Arendt, H. A Condição Humana. Rio de Janeiro, Forense, 1991.

[Aristóteles26] Aristóteles. The Politics of Aristotle (Clarendon Press, Oxford. 1926

[Bateson54] Bateson, G. A Theory of Play and Fantasy. In Symposium Cultural, Anthropological, Semantic, and Communication Aproaches: 39-51, 1954.

[Bateson77] Bateson, G. Vers Une Écologie de L'Esprit.Tome I, Ed. Seuil, 1977.

[Bateson80] Bateson, G. Vers Une Écologie de L'Esprit.Tome II, Ed. Seuil, 1980.

[Bateson51] Bateson, G. e Ruesch, J. Communication: The Social Matrix of Psychiatry. Norton. N.Y, 1951.

[Caillois58] Caillois, R..Les Jeux et les hommes, Gallimard, Paris, 1958.

[Carr02] In Bandet, J. e Sarazanas, R.. L'Enfant et les jouets, Casterman, 1972 ;16.

[Cronen95]Cronen. The Consequenciality of Communication. In Sigmam, ob. Citada, 1995.

[Ellis73] Ellis, M. J.. Why People Play, Prentice-Hall, Englewood Cliffs, NJ, 1973.

[Erickson50] Erickson, E. H.. Child and Society,Norton, New York, 1950.

[Freud74] Freud, S..The Complete Works of Sigmund Freud, Hogarth Press, London,1974.

[Goffman74] Goffman, E.. Les Rites d' Interaction. Paris, Minuit, 1974.

[Groos01] Gras, K.. The Play of Man, Appleton, New York, 1901.

[Hagége86] Hagége, C.. O Homem Dialogal. Lisboa, Bertrand, 1986.

[Hall, 79] Hall, E. T.. Au Delà de la Culture. France, Points, 1979.

[Hall, 96] Hall, E. T.. A Dança da Vida, a outra dimensão do tempo. Lisboa, Relógio d'Água, 1996.

[Huizinga51] Huizinga, J.. L'Homo Ludens, Essai sur la Fonction Sociale du Jeu. Paris, Ed. Gallimard. 1ª edição 1938, 1951.

[Kirk e Raven57] Kirkg, C., Raven Os Filosofos Pré-Socráticos. Lisboa, FCG.1957.

[Lopes98] Lopes, MCO. O Brinquedo como Médium de Comunicação. In Para Intervir em Educação. José Tavares (ed.), Aveiro, CIDInE, 47-63, 1994.

[Lopes96] Lopes, MCO. O Lado Oculto do Brincar Social Espontâneo. In Cadernos Educação de Infância,1996.

[Lopes98] Lopes MCO. Comunicação e Ludicidade na Formação do cidadão Pré-escolar. Tese de Doutoramento, Universidade de Aveiro, 1998.

[Lopes99] Lopes MCO. Florestas em Movimento. Edição Universidade de Aveiro, 1999.

[Lopes02] Lopes MCO. Spontaneous Social Playing. Contributing to giving more value to a unique manifestation of Human Ludicity. XV World Conference IPA – Brasil. S. Paulo, 4-8 Novembro, 2002.

[Lopes04] Lopes MCO. Ludicidade, contributo para a busca dos sentidos do Humano. Edição Universidade de Aveiro, 2004.

[Lopes04] Lopes MCO. Comunicação, contributo para a busca dos sentidos do Humano. Edição Universidade de Aveiro, 2004.

[Luhman93] Luhman, N..A Improbabilidade da Comunicação. Lisboa, Vega Lda, 1993.

[Lieberman77] Lieberman, J. N. Playfulness: Its relationship to Imagination and Creativity, Academic Press, New York, 1977

[Machado81] Machado, J. P.. Grande Dicionário da Língua Portuguesa. Lisboa, Soc. de Língua Portuguesa. Vol. Ia, IIb, IIIc, IVd, Ve, VIf, VIIg, VIIIh, IXi, Xj. Amigos do Livro Ed. Ldª, 1981.

[Machado77] Machado, J. P.. Dicionário Etimológico da Língua Portuguesa, Livros Horizonte, 1977.

[Macluhan76] Macluhan, M.. Pour Comprendre les Média, les Prolongments Thecnologiques de l'Homme. Paris, Seuil, 1976.

[Meyer & Brightbill 64] Meyer, H. D. and Brightbill, C. K.. Community Recreation, Prentice-Hall, Englewood Cliffs, N.J., 1964.

[Nasch60] Nasch, J. B.. Philosofy of Recreation and Leisure, William Brown Dubuque, Iowa, 1960

[Neumeyer and Neumeyer58] Neumeyer, M. and Neumeyer, E.. Leisure and Recreation, Ronald Press, new York, 1958.

[Patrick16] Patrick, G.T.W.. The Psychology of Relaxation, Houghton-Mifflin, Boston, 1916.

[Piaget62] Piaget, J.. Play, Dreams and Imitation in Childhood (translated by G.Gattengno and F. M. Hodgson) N.Y. Norton, 1962.

[Platão00] Platão. The Republic of Plato A. L. Burt, New York, 1900.

[SantoAgostinho58] Santo Agostinho (1958). Confissões. Porto, Edições Livraria Apostolado da Imprensa, trad. port do original editado em 1536.

[Sigman95] Sigman, S.J.. The Consequentiality of Communication. USA, Ed.Lawrence E. Ass. Ltd, 1995.

[Spencer27] in See Lehman, H. S. and Witty, P. A.. The Psychology of Play, A. S. Barnes, New York, 1927.

[Schiller65] Schiller, F.. On the Aesthetic Education of Man, Frederick Ungar, New York, 1965.

[Stanley-Hall20] Stanley.Hall, G.. Youth, Appleton-Century, new York,1920.

[Torkildsen83] Torkildsen, G.. Leisure and Recreation. G.B., Management, U.P.Cambridge, 1983.

[Vygotsky76] Vygotsky, L. S.. Play and Its Role in The Mental Development of The Child. In Bruner, Jolly & Sylva (eds), Play: Its Role in Development and Evolution, 537-554. N.Y. Basic Books, 1976.

[Vygotsky88] Vygotsky, L. S.. A Formação Social da Mente. S. Paulo, Martins Fontes, 1988.

[Watzawick77] Watzawick, P.; Weakland, J.. The Interactional View. Norton & Cª, 1977.

[Watzlawick80] Watzawick, P.. Le Langage du Changement. Paris, Ed. Seuil, 1980.

[Watzlawick91] Watzawick, P.. A Realidade é Real ? Lisboa, Relógio d'Água, 1991.

[Watzlawick67] Watzawick, P..et al (1967). Pragmatics of Human Communication. A Study of Interactional Patterns, Pathologies, and Paradoxes. EUA, W.W. Norton & Company.

[Wittgenstein87] Wittgenstein, L.. Tratado Lógico-Filosófico. Lisboa, Ed. FCG, 1987.