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# THE CHILD AS A PLAYER AND HIS/HER SPECIAL READING GAMES: FOR AN ANALYSIS OF OPTICAL ILLUSIONS BOOKS

EL NIÑO COMO JUGADOR Y SUS ESPECIALES JUEGOS DE LECTURA: PARA UN ANÁLISIS DE LOS LIBROS DE ILUSIONES ÓPTICAS

## **Abstract**

Optical illusion books belong to the category of object-books and of movable books, whose main feature is interactivity with the reader. Also known as action books or special effects books, these texts invite to participate in a special reading game. Intentionally playful, they compel readers to question models of reading. This study aims at deepening a critical reflection on these books, by analysing, using textual techniques of analysis from the scope of narratology, six examples, all recently edited and selected for their aesthetic quality and innovative character: Isto ou Aquilo? [This or That?], by Dobroslav Foll; Olá Adeus [Hello Goodbye], by Delphine Chedru; Veo Bichos [I see animals], by Cintia Martín; and Nova lorque em Pijamarama [New York in Pyjamarama], Luna Parque em Pijamarama [Luna Park in Pyjamarama], and Os Meus Robôs em Pijamarama [My Robots in Pyjamarama], by Michael Leblond and Frédérique Bertrand. These books provide an acetate overlay for transforming illustrations. Most also have a grid to slide over the pages to produce new images. Some have a narrative, while others are just a visual sequence representing several objects, human figures or nature elements. These books surprise, require trained perception and interpretation skills. By responding to the child's ludic impulse, as well as contributing to increase concentration power and stimulating their imagination, these "participation books" become aesthetically and intellectually captivating.

Keywords: optical illusions books, reading game, playfulness, sensoriality

# Resumen

Los libros de ilusiones ópticas pertenecen a la categoría de los libros-objeto y de los libros móviles, cuya característica principal es la interactividad con el lector. También conocidos como libros de acción o libros de efectos especiales, estos invitan al lector a participar en un juego de lectura especial. Intencionalmente lúdicos, obligan a cuestionar modelos de lectura. Este estudio pretende desarrollar una reflexión crítica sobre estos libros, utilizando técnicas de análisis textual, seis ejemplos, todos recientemente editados y seleccionados por su calidad estética y su carácter innovador: Isto ou Aquilo? [Esto o aquello?], de Dobroslav Foll; Olá Adeus [Hola Adiós], de Delphine Chedru; Veo Bichos, de Cintia Martín; y Nova Iorque em Pijamarama [Nueva York en Pijamarama], Luna Parque em Pijamarama [Luna Park en Pijamarama] y Os Meus Robôs em Pijamarama [Mis Robots en Pijamarama], de Michael Leblond y Frédérique Bertrand. Estos libros proporcionan una capa de acetato para transformar ilustraciones. La mayoría también tienen una cuadrícula que se desliza sobre las páginas

para producir nuevas imágenes. Algunos tienen una narración, mientras que otros son sólo una secuencia de ilustraciones que representan varios objetos, figuras humanas o elementos naturales. Estos libros sorprenden, requieren una percepción entrenada y habilidades de interpretación. Al responder al impulso lúdico del niño, además de contribuir a incrementar el poder de concentración y estimular su imaginación, estos «libros de participación» son cautivadores desde el punto de vista estético e intelectual.

Palabras clave: libros de ilusiones ópticas, juego de lectura, ludicidad, sensorialidad

## 1. Introduction

Contemporary children's literature has been standing out for its highly experimental tendency, both at textual and/or literary level, as well as for a graphic construction trend largely due to the mobilisation of strategies traditionally associated with other arts and/or a certain elision of borders between art forms such as literature, film (animation film, for example), painting, and even sculpture. Domains or creative objects that have, for example, a playful component intersect, and their intrinsic hybridity arouses the attention of their potential addressee. In fact, as stated by Nikolajeva (2008),

in postmodern aesthetics, the boundary between art and artefact becomes vague. A vast output of products nowadays lies in the borderline between books and toys, employing cuts-outs, flaps, and other material elements that add to the playful dynamics and demand a certain degree of interaction to engage the viewers and make them co-creators (Nikolajeva, 2008: 67).

This fact can be observed in optical illusions books, the typology that this study will investigate. As we have already elucidated, we selected six books. All of them have been published in the last decade and have had a considerable critical reception. The criteria that guided our selection were essentially aesthetic. The quality of the verbal text or of narratives, as well as the visual/graphic composition, which has, as main singularity, the inclusion of an individual or external element to the book (an acetate) determined our choice. Thus, the textual *corpus* of this study has a representative character and seeks to account for a typology of books that is still scarcely published, especially in Portugal. In order to distinguish the selected books from others that are also in the category of object-books, we have used textual analysis techniques from the theoretical scope of literary studies, more specifically from narratology. We have also recurred to some others from the area of visual and plastic expression, trying to account for aspects related to colours and their conjugations, and especially the effects of using an element/material that can be added to the illustration and moved on it, changing the meanings.

Optical illusions books can be thought of as belonging to the category of object-books (Ramos, 2017) and of "books with motion" or "animated books" (Van der Linden, 2007), whose main uniqueness lies in the interactivity with the reader, of whom more is asked than to simply turn pages. The term "books with motion" or "movable picture books" refers generically to objects in which "flaps of paper or card can be raised or moved, or tabs can be pulled, to disclosure new features of the picture." (Carpenter and Prichard, 2005: 365). These features situate these object books in the field of "toy books", which also includes other formats such as "flick" or "flip books" (kineographs), and "plastic bathtub books", just to name two examples. In these books, one can observe a strong visual and graphic investment associated with, on the one hand, a secondarization of educational purposes and, on the other, a strong intention to amuse or entertain. The appeal to physical manipulation by the reader also

distinguishes this type of books from others, and leads to another possible classification: "participation books" (Galda *et al*, 2014).

The call to action/participation and the playful intentionality so overtly present in optical illusions books, combined with an emphasis on the visual, determine that the focus of the reader is centred on the images. If present at all, the verbal text, often non-narrative, is characterised by an apparent simplicity and economy. It generally has a relatively peripheral nature, but is symbiotically associated with the visual component. The relationship between verbal text and visual text and the interaction between them are key aspects in the construction of these books (Male, 2007). Pictures or illustrations, by means of physical mediators attached to the book, such as coloured or striped transparencies, are perceived in different ways from those images that are enabled/revealed at a first glance. In these books, the real and the illusory are creatively combined to hold the reader's attention.

"Animated books", in Parreiras's (2006) words, or "book-games" in Beckett's (2012), optical illusion books are books that mobilise sophisticated graphic strategies, requiring physical involvement from the reader who, in this clearly playful contact, sees both his/her capacities of observation and decoding and his/her curiosity stimulated. In fact, the creative deconstruction of the formal characteristics of conventional books has resulted in the proposal of alternative graphic and fictional structures. In the case of optical illusions books, this is really owing to what visual game illustrations enable when seen through to a transparent chromatic filter.

Also known as "action books" or "special effects books", these texts invite the reader to accept a singular reading pact that demands an essentially physical commitment. The meaning of the aesthetic discourse that the book offers results not only from the reading of words and images, but also (and in a determinant way) from the result and the interpretation of a physical action on the object itself and its graphic language. Intentionally playful and showing a very challenging architecture, these objects instigate the extratextual addressee to question forms and models of reading and interpreting which result from the celebration of a special protocol, largely based on an animated participation in an enveloping sensory experience. It is also important to note that "children brought up with television and film are equipped to read the nuances and ironies in pictures that are now commonplace in most visual media" (Salisbury, 2004: 84) and, therefore, are naturally receptive to what the most amazing optical illusions books and their images can offer.

# 2. Towards an analysis of optical illusions books: some contributions/examples

Although there does not seem to exist a book of Portuguese authorship that can be classified strictly as an optical illusions book, there are, in the publishing market, several volumes presently available that evidence features or singularities akin to the typology under scrutiny in this study. In the last few years, many publishing houses that publish in Portuguese (such as Editorial Kalandraka, for example) have placed in the bookstores appealing objects that simultaneously surprise children and adult mediators.

Six such books are Isto ou Aquilo? [This or That?], by Dobroslav Foll; Olá Adeus [Hello Goodbye], by Delphine Chedru; Veo Bichos [I see animals], by Cintia Martín; and Nova Iorque em Pijamarama [New York in Pyjamarama], Luna Parque em Pijamarama [Luna Park in Pyjamarama], and Os Meus

<sup>1</sup> Cf. the definition of this expression: "Participation books provide a concrete visual and tactile material for children to explore: textures to touch, flaps to lift, flowers to smell, and pieces to manipulate." (Galda *et al.*, 2014: 120)

Robôs em Pijamarama [My Robots in Pyjamarama], by Michael Leblond and Frédérique Bertrand. A common feature to these books is that they offer a reading appendix which is an acetate intended to transform the illustrations or images that can be found inside the books. In some cases, this is a grid acetate with a set of stripes. Some volumes present no verbal text, containing only a sequence of illustrations representing different objects, human figures or elements of the natural world. Others, however, present a narrative/a story to which the visual composition, which is activated by the interventional gesture of the reader him/herself, contributes decisively, as will be seen in the detailed reading of the examples that follows.

**2.1** The book composed by Drobroslav Foll, *Isto ou Aquilo?* [*This or That?*] (2011), first published in the Czech Republic in 1964, is a visual sequence of 16 double images i.e., two visual representations with the same or similar formats whose identification and decoding is only possible if the recipient lays a transparency with diagonal grey stripes over them and moves it from right to left and vice versa, a duality/duplicity that the question in the title suggests.



Fig. 1-Front cover of Isto ou Aquilo, by Droboslav Foll.

This procedure is indicated on the front flap of the volume: "Place the acetate over the pages. As it slides, allow yourself to be surprised by the images that appear", a peritext which is also an invitation to the reader. Thus, these double images allow us to visualize, after moving the acetate, as we have said, a scissors or the head of a stork, an airplane or a swallow, a pear or a lamp, among others. Not showing a rigid sequencing or, in other words, displaying no links of causality or consequence, this sophisticated illustrative work may belong to the category of wordless picture books, catalogues or portfolios (Ramos, 2011), as it integrates images belonging to different thematic fields—nature, human figures, etc.—whose juxtaposition has sometimes a subtle humorous component to it.

**2.2** In *Olá Adeus [Hello Goodbye]* (2015), by Delphine Chedru, as the title suggests, antinomic duplicity is the key element in both the text/image construction, and the "transformation tool" attached to the book–a piece composed of two sheets of acetate, one red and one light blue–as well as in the actual physical action that the reader must perform.



Fig. 2-Front cover of Olá Adeus, by Delphine Chedru.



Fig. 3-Back cover of Olá Adeus, by Delphine Chedru, showing a visual explanation of book's main mechanism.

More specifically, the book's architecture consists of two contrary words (antonyms) such as, for example, small/large, captive/free, light/heavy, good/evil, printed on the odd pages in light blue and red; on the even pages, there is a visual composition of mixed elements also printed in light blue and in red. Using the double filter, the reader is supposed to carry out a cross reading and a matching exercise between the blue words and blue illustrations and the red words and red illustrations. The linguistic parsimony is in stark contrast with the visual richness of this book, which contains pictures that recreate detailed indoor and outdoor scenes, terrestrial and aquatic, natural or urban, faces, different situations of everyday life, especially common in children's daily life, among others.

2.3 Léo Bichos [I see animals] (2015), by Cintia Martín, is perhaps the least-known book of the set under discussion, as it has been edited by a small Spanish independent publisher, Ediciones Tralarí, also responsible for the publication, for example, of the set of minimal narratives entitled "Cuentos infinitos".

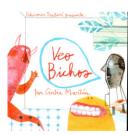


Fig. 4–Front cover of Veo Bichos, by Cintia Martín.

It is, however, an extremely original book for children. It consists of a folding poster, presented as a small quadrangular shape which allows a plurality of readings, with or without the red acetate filter attached to it. There are also two pencils (one orange, one white) attached, inviting the extratextual addressee to continue to draw elements only visible when the filter is used, a action which transform the reader in co-author. In a series of scenarios laid out in double pages and dubbed "laboraberinto", an area with twelve rooms, many strange animals, although harmless and kind-looking, can be transformed and disappear. The reader is, thus, an agent acting on the images and on the words that make up this unusual publication in which several compositional techniques are combined: drawing, folding, the recourse to an appendix or acetate, among others.

In the three volumes by French artists Michael Leblond and Frédérique Bertrand, *Nova Iorque em Pijamarama* [New York in Pyjamarama] (2012), Luna Parque em Pijamarama [Luna Park in Pyjamarama] (2013), and *Os Meus Robôs em Pijamarama* [My Robots in Pyjamarama] (2014), there is a replication of the "ombro-cinema" animation technique, and therefore the idea of movement is fundamental. As Michael Leblond clarifies in the peritext of referred books and Trebbi states,

Ombro-cinema is therefore based on a double illusion. First of all, the eye and the brain reconstruct the missing four-fifths of the image. And the well-known phenomenon of persistence of vision also comes into play to create an illusion of movement; by sliding the grid over the paper, one image turns into another. (Trebbi, 2012: 48).

For example, as it can be read on the end flap of My Robots in Pyjamarama:

The technique of "ombro-cinema" owes its name to an optical toy very much in vogue at the beginning of the twentieth century, a small theatre of Chinese shadows formed by a roll of paper that unravelled behind a grid printed on a transparent screen. This ingenious system allowed characters to be animated by alternately showing the two stages of a movement. In film, as in cartoons, the illusion of motion is caused by retinal persistence: the ability of the eye to remember for a split second an image that has just disappeared. It is the principle of the flip book.

In Nova lorque em Pijamarama [New York in Pyjamarama] (2012) and Luna Parque em Pijamarama [Luna Park in Pyjamarama] (2013), at first, the action is implicit or hidden.



Fig. 5–Front cover of Nova Iorque em Pijamarama, by Michael Leblond and Frédérique Bertrand.



Fig. 6-Front cover of Luna Parque em Pijamarama, by Michael Leblond and Frédérique Bertrand.

In fact, for action to take place, the reader has to act on the books by sliding a striped transparency over their pages, from one side to the other. The movement seems very realistic, and thus the static pages of the books become endowed with an attractive dynamism.

Both books belong in a series where the protagonist is a child wearing striped pyjamas. In *New York in Pyjamarama*, the character escapes from his bed, inviting the reader directly to his dream trip, a journey through the complex city of New York, which serves as a physical space for the action. Moving through heavy traffic roads with their natural noise—as suggested by several onomatopoeia—, warehouses, a "skyscraper forest" and into a park, the little hero is surprised by the excitement, the rush, the lights and the movement of the city. By manipulating the striped transparency, the reader also encounters a very dynamic setting, a space, where he/she can see cars moving, among other things, almost living the agitation experienced by the protagonist.

In the second book in this series, *Luna Park in Pyjamarama*, the story begins in a similar way, with the same context, bedtime, and it also develops into an adventure, this time at an amusement park. Here too, joy, vitality and children's adventurous spirit are verbally and visually recreated. Animation, a characteristic of the place in which the protagonist enthusiastically moves, is made apparent in several hearing and visual cues, in frequent onomatopoeia, as well as in interrogative and exclamative sentences, and is supported by the actions of the reader, who lays the striped grid over the images, thus allowing him/her to observe all this movement (the bumper cars, target shooting, the waterfalls, the palace of mirrors, etc.).

In both books, the extratextual recipient enjoys a type of reading which combines the deciphering of a written code and of a visual code that seems to gain volume and momentum as the stories progress. Visual illusion extends the fictional universe and thus triggers the imagination.

Os Meus Robôs em Pijamarama [My Robots in Pyjamarama] (2014), the third book by Leblond and Bertrand, is a thematic volume of activities in which the challenge is to build animated robots, with recourse to colouring pencils, to drawing and painting, and with the use of a "magic grid", i.e., an accessory consisting of a striped transparency.



Fig. 7-Front cover of Os Meus Robôs em Pijamarama, by Michael Leblond and Frédérique Bertrand.



Fig. 8–Back cover of *Os Meus Robôs em Pijamarama*, by Michael Leblond and Frédérique Bertrand. Information about the way of using/reading the book.

The verbal text, printed using creative typography and arranged informally, more or less free on the pages, addresses a "you" that the book wishes to encourage to act and to create his/her own

mechanical beings which move their eyes, heads, legs and arms, which appear and disappear, and whose words must be deciphered.

**2.4** After having selected the textual *corpus* of this study, two other books of particular interest to this analysis came out in Portugal, which deserve to be discussed: A *Grande Travessia* [The *Great Crossing*] (2015), by Agathe Demois and Vincent Godeau, and *O Meu Irmão Invisivel* [My Invisible Brother] (2015), by Ana Pez. These books also come with colour transparencies, allowing for an opening up of the possibilities of reading, and creative contact with their texts.

A Grande Travessia [The Great Crossing] (2015) is printed in two colours (light blue and red), and is accompanied by a "magic magnifying glass" which allows the reader to uncover what is hidden in the landscape or "on the other side", as well as to focus on illustration details.



Fig. 9–Front cover of A Grande Travessia, by Agathe Demois and Vincent Godeau.

The narrative is told by Bico-Vermelho [Red-Beak], a migratory bird, which leaves its tree to discover the world. The topic of travel and of discovering the world, more specifically its spatial and human diversity, is presented in a unique aesthetic way. The book stands out for its abundant and sophisticated visual composition (in some cases, occupying a double page), combined with a verbal text that, although concise, highlights attractive features of style, such as sound coincidences or rhymed speech, exclamative sentences, segments suspended by ellipses, expressive adjectives, repetitions, interrogative sentences addressing the extratextual receptor directly, among others. This beautiful book is all the more attractive for the playful exercise that it proposes: a layered reading, one of them only possible by using the magnifying glass.

O Meu Irmão Invisível [My Invisible Brother] (2015), by Ana Pez, is also an attractive reading proposal, in the category of picture storybooks and, therefore, mainly structured around a profuse visual component and a contained verbal component, both linked in a synergetic way.



Fig. 10-Front cover of O Meu Irmão Invisível, by Ana Pez.

This book proposes a dual approach, as suggested in the back cover: it can be first read through a "magic glasses" card with a red "lens", which comes in an envelope inside the book; then it can be read more conventionally, i.e. without any physical "agent"/filter, simply based on visual and linguistic decoding. This is a reading process that oscillates between appearance and essence (i.e. between what you "think" it is and what it truly is), and between concealment and revelation. In the book, two stories, triggered by the invention of an "invisibility machine", are told. The characters of both stories are an older sister, the narrator, and a younger, "invisible" brother. These stories belong to the realm of the fantastic, especially when the "magic glasses" are used, and are infused with a subtle sense of humour. The transforming element of this narrative, i.e., the glasses, opens up other reading possibilities and ways of relating to and enjoying the book.

# 3. Final considerations

In the texts under scrutiny, "the reader becomes a co-creator, contributing to the establishment of meaning with his [sic] experience and understanding" (Nikolajeva, 2005: 252). It is a set of books both static-as they predict a conventional reading or a decodification of words and images-and dynamic reception-as movement is implicit and explicit-, or rather which go from being static to being dynamic. This is a process caused by the reader who, faced with a de-formalisation of the act of reading, naturally becomes more engaged with it. The process requires a special or a free conception of reading as well as a trained perception and solid interpretation skills on the part of the reader, as for example, a disruption in the space-time fabric of the narrative (Gervereau, 2007), which is doubly rooted in words and images, takes place. These books expect the reader to get rid of common norms, such as those related to the directionality of reading, that is, we read from the top down and from the left to the right.

Optical illusions books offer a multimodal experience through contact with an object that, by means of its own graphics or architectural built, respond to the playful impulse of the child, who takes up his/her role of "reader as player" (Appleyard, 1991). The direct interpellation of the reader senses, namely of sight and touch, also results in a physical and affective involvement. In this way, he/ she has the possibility of experiencing the act of reading as a stimulating act, which is not limited to the decoding of the verbal text or, in other words, which not only requires a language and a literary competence, but also reading skills in the field of visual construction. Reading is also reading static

and even dynamic images, as well as connecting words and iconic compositions. This is a special kind of game or a ludic exercise made of a multiplicity of codes that have to be crossed and interpreted by the reader.

Besides, these reading experiences help to increase his/her power of concentration, as he/she has, first of all, to observe an initial version of a verbal and visual composition, and interpret it, and, then, to re-open his/her eyes for another/new one resulting from the use of an acetate/grid. Always with the involvement of memory, forward and backward movements are provided. This is an exercise that, in spite of being complex and demanding, is ostensibly challenging. The stimulation of his/her imagination or creativity is also a potential formative point of optical illusions books as the diversity of scenarios or elements foreseen in this type of books is very wide. In fact, they can be an inspiration and a way of contacting, through play, with fictional/artistic discourses.

For these reasons, and because they are aesthetically and intellectually structuring, these interactive/participation books can be said to represent an authentic "grammar of fantasy", recurring to the well-known Rodari (1997) formulation.

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