

The Multimodality of Children's Artefacts: Towards a Toy Literacy

A Multimodalidade dos Artefatos Infantis: Rumo ao Letramento do Brinquedo

Danielle Barbosa Lins Almeida¹
Universidade Federal da Paraíba (UFPB)
danielle.almeida@gmail.com
<https://orcid.org/0000-0003-1472-6083>

Abstract: Whether toys are made of metal, plastic, leather, fabric, wood or any soft material, they seem to reveal cultural references and evoke emotional reactions. The aim of this article is to expand the agenda of childhood studies (Caldas-Coulthard & van Leeuwen, 2001, 2002, 2004; Machin and van Leeuwen, 2009; Almeida, 2006; 2008; 2009; 2014; 2017; 2018; 2020; 2021), which have been effective as theoretical tools to toys' semiotics from a two-dimensional, linguistic perspective. The idea is to offer a tool to check on toys' material configurations such as texture, smell, kinetic possibilities and the degree of realism of these three-dimensional childhood representations by constructing a multimodal framework – which I have called *toy literacy* – to analyse toys in their three-dimensional features. Through the verbal and visual choices behind toys' design, packages and campaigns we can discuss some of the roles provided by their multimodal messages and reflect upon the kind of childhood which is constructed through their material representations. By means of a metalanguage, I have created a framework that may be of help to different social sectors – from the academic to the more general public. In providing a systematic language to talk about toy choices, I hope to promote reflection on the social structures pertaining to toys' gender and cultural representations, which, for long, have been kept concealed.

Keywords: Toys; Multimodality; Materiality.

Resumo: Sejam brinquedos feitos de metal, plástico, couro, tecido, madeira ou qualquer material macio, eles parecem revelar referências culturais e evocar reações

¹ Bolsista de Produtividade em Pesquisa do CNPq.

emocionais. O objetivo deste artigo é ampliar a agenda dos estudos da infância (Caldas-Coulthard & van Leeuwen, 2001, 2002, 2004; Machin and van Leeuwen, 2009; Almeida, 2006; 2008; 2009; 2014; 2017; 2018; 2020; 2021), que tem se mostrado eficazes como ferramentas teóricas para o estudo semiótico dos brinquedos, a partir de uma perspectiva linguística bidimensional. A ideia é oferecer uma ferramenta para analisar características como textura, cheiro, possibilidades cinéticas e o grau de realismo dessas representações tridimensionais da infância, construindo uma estrutura multimodal – que chamei de *letramento do brinquedo* – para analisar suas características tridimensionais. Através das escolhas verbais e visuais por trás do *design*, embalagens e campanhas dos brinquedos, podemos discutir suas mensagens multimodais e refletir sobre o tipo de infância que é construída por meio de suas representações materiais. Através de uma metalinguagem, criei uma estrutura que pode servir a diferentes setores sociais – do acadêmico ao público em geral. Ao fornecer uma linguagem sistemática, espero promover a reflexão sobre as estruturas sociais relativas ao gênero e as representações culturais dos brinquedos, que, por muito tempo, foram mantidas ocultas.

Palavras-chave: Brinquedos; Multimodalidade; Materialidade.

Introduction

Toys have been historically conceived as objects to play with. In their myriad versions across the world and the centuries, toys have for long been considered as an unmistakable sign of childhood. However, as either children’s three-dimensional playthings or artefacts produced for adults’ collection, toys need to be understood not only as objects for playing but also as significant signs of social practices, like the ones related to gender roles (Selander, 2008). Yet academic research towards the exploration of their multimodal configurations and meaning-making potential has been quite scant, despite a few relevant studies in the area (eg. Almeida, 2018; Heljakka, 2013; Machin; van Leeuwen, 2009). My main interest as a linguist is to construct a multimodal framework – which I have called *toy literacy* – to analyse toys in their three-dimensional features, with a view to discussing some of the roles provided by toys’ multimodal messages and reflecting upon the kind of childhood that has been constructed through toys’ material representations. Assuming that the concept of literacy presupposes the development of one’s ability to read and interpret the process of production and reception of a multiplicity of semiotic codes (Unsworth, 2001), my main aim is to expand the agenda of childhood studies from a linguistic perspective. By means of a metalanguage, I have created a framework that may be of help to different social sectors – from the academic (educationalists and researchers) to the more general public (toy designers, manufacturers, parents, children, and consumers), to show how toys end up communicating and reinforcing stereotypes and social behaviours through the verbal and visual choices behind their design, packages and campaigns. In providing a systematic language to talk about toy choices, I hope to promote reflection on the social structures pertaining to toys’ gender and cultural representations, which, for long, have been kept concealed.

State of the Art

As tools for playing and artefacts of cultural significance, toys have been more commonly associated with children’s culture. The intersection between toys and playing can be observed from various perspectives. Psychologically, toy-playing is believed to contribute to the development of children’s physical and emotional skills. Linguistically, toys have been regarded as a meeting place for various discourses (Falkstrom, 2003), taken that, as miniaturised social actors, they intimately relate to what goes on in society (Caldas-Coulthard & van Leeuwen, 2002). Commercially, it has been propagated that toys need to be sturdy and attractively designed to please both children and their parents. Pedagogically, toys should be preferably used as props – and not in terms of their pre-defined storylines – in order to expand children’s playing possibilities (Brougère, 2014).

Indeed, children’s inventive capacity while playing has been taken as antithetical to playing with manufactured toys, whose gradual insertion into children’s culture over the last hundred years has been changing the nature of the playing activity by assigning “industrial forms and functions and the meanings and uses of marketing to the realm of playthings” (Kline, 1993, p. 144). Brougère (2014) has mentioned playing affordances as the *scripts* or playing possibilities offered by toys’ design, shape and/or colours. The concept of toys’ playing affordances has also been related to children’s creative potential to transform multifarious, discarded objects into playthings, which can be associated to their subjective inventiveness.

For literary critic Walter Benjamin (1984), the more imitative a toy becomes, the more it deviates from real life playing activity. An example would be toys designed to scent like flowers, fruits and babies, toys with lighting and sound effects maximized at their full spectrum. Peers (2001) has stated that the more lifelike a baby doll is, the more prescriptive it becomes. Along the same line seems to be Berg’s view (2003). He contends that materiality plays an essential role in enhancing children’s (and adult’s) creativity while playing, as he points out the importance of paying attention to the playing affordances fostered not only by factory-made toys but also by less obvious playing objects such as kitchen utilities.

In his seminal experimental study carried out in the 1970s, Singer (2007; 1973) pointed to children’s highly creative potential while playing with less structured materials such as blocks, clay and rag dolls in that they tended to stimulate children’s fantasy more than extremely realistic toys. Irrespective of the theoretical perspective from which toys are looked at, the fact that they should be taken as subjects of a multimodal academic investigation seems unquestionable in order to help to elucidate some hidden meanings behind their material configurations.

Background on Toy Research

My previous multimodal analyses have primarily focused on dolls – both in their two and three-dimensional configurations – and on the marketed language of dolls’ packages, websites and social media campaigns (Almeida, 2006; 2008; 2009; 2014; 2017; 2018; 2020; 2021). In terms of

these projects’ results, by investigating the verbal and the visual texts of the web advertisements for best-selling Brazilian fashion doll *Susi* and North-American dolls *The Bratz* in the early 2000s, it was possible to relate these dolls’ representations to a stereotyped view of the female figure.

The interrelation between toys and gender is a straight one. Toys are generally publicised by picturing boys in advertisements of vehicles and male action dolls and girls in advertisements for fashion, baby and female dolls. The gender-specific design of most toys was not clearly determined before the Industrial Revolution, as “most toys were home-made, so that dolls would frequently be crudely fashioned lumps of clay or some other material which children felt could stand in for a doll” (Varney, 1999).

After the Industrial Revolution, toys started to gather ideological concepts and acquire gender identities and dolls started to be perceived as girl-related toys, encouraging the practice of nurturing and motherhood from early age and doll-playing as typical activities which acquainted little girls with the traditional domestic, mothering role they had to pursue thereafter. For some writers, even dolls like the grown-up, big-breasted and sexually appealing Barbie, play a role in reinforcing the discourse of ‘domesticity’ through her represented narrative universe which revolves around activities such as going to work, going shopping, etc.

Material properties such as the unchangeable features such as Barbie’s feet specially designed for high-heeled shoes deserve a closer look. The choice for colours also constitutes another relevant aspect of gender. Traditionally, the colour pink has commonly been associated to girl-related items whereas blue has been used to refer to the boys’ world. Along the years, these colours have been found stamped in toys’ packaging, advertisements, catalogues, and the background of most web pages associated with children’s toys. Such colour distinction leads to the assumption that more than simply colour tones, the meaning that the ‘pinkish girl world’ and ‘blueish boy world’ embed, attach, in fact, values of femininity and masculinity.

In his review, Machin (2014) refers to my investigation as detailed and based on social semiotic analysis to show that, although there has been a move in Brazilian society towards the depiction of women in professional careers through these dolls, this is usually done via lifestyles and consumer objects rather than through concrete activities.

Later, in the mid 2010’s, my studies started to focus on issues such as representation, diversity and inclusion in toys (Almeida, 2014; 2017; 2018; 2020; 2021). Although they pointed to a tendency towards a more realistic depiction in lines like *Mattel’s Barbie*, who has been added more diversity into her material configurations, they also signalled that there seems to be a lack of representation in relation to toys showcasing disabled children in order to reflect a more disability-inclusive society.

Finally, my latest multimodal analyses on baby dolls and their packages (Almeida, 2018; 2020) relate an increasingly modality level in contemporary baby dolls to highly prescriptive playing scripts as tendencies in Brazilian baby dolls of mid 2010s. What all these projects’ results corroborate is the interrelation between toys’ design, their embedded meanings and playing affordances, which attests to the feasibility and applicability of a linguistically-based approach to the analysis of toys’ three dimensional features. Figure 1 summarises my toy projects developed over the last years through the projects *Toys on Focus* and *Multimodality & Childhood*.

Next section focuses on the elaboration of a framework for the analysis of toys’ material/multimodal features, which can be considered both timely and ground-breaking due to its

Figure 1: Toy Projects *Toys on Focus and Multimodality & Childhood*

TOYS ON FOCUS + MULTIMODALITY & CHILDHOOD		
TOPIC	DESCRIPTIVE FRAMEWORK	RESEARCH ACTIVITIES
FASHION DOLLS	<ul style="list-style-type: none"> Verbal and visual analysis of web advertisements [two-dimensional texts] of Brazilian fashion doll Susi and North-American dolls The Bratz [GVD + SFG] 	<ul style="list-style-type: none"> Description + analysis of visual syntactic patterns [at representational, interactive and compositional level] and verbal features [lexico-grammatical patterns] of fashion dolls’ ads Visit to toy museums and childcare centers [in Brazil and Australia]
DIVERSITY, REPRESENTATION & INCLUSION IN TOYS	<ul style="list-style-type: none"> Identification of verbal and visual features of contemporary toy campaigns focusing on diversity, representation and inclusion [American Girl™, Toy Like Me™, Lammily™ + My Family Builders™]: photographs of toys and their packages, websites, social media campaigns 	<ul style="list-style-type: none"> Identification of visual and verbal aspects of toy campaigns via systems of signification [representational, interactive + compositional level] + lexicogrammatical features Observation of contemporary toys’ kinetic properties through photographs and campaigns
BABY DOLLS	<ul style="list-style-type: none"> Description of multimodal properties of Brazilian baby dolls’ packages [aural, olfactory, tactile + verbal and visual aspects] 	<ul style="list-style-type: none"> Visit to toy stores and museums [in Brazil, Portugal + USA] Analysis of textual and contextual meanings Identification of baby dolls’ modality level
Do toys reflect REALITY? What are their main TEXTUAL AND CONTEXTUAL MEANINGS? How do these meanings relate to PAST REPRESENTATIONS? How do they relate to representations in DIFFERENT CULTURES?		

Source: (Almeida, 2018; 2020)

cross-cultural aspect and the promising nature of revealing toy meanings that have remained concealed across time and cultures.

Towards a Toy Literacy as a Tool for Toys’ Material/Multimodal Investigation

One of the theoretical possibilities of analysing toys’ three-dimensional configurations such as their aural, olfactory and tactile aspects is through Kress and van Leeuwen’s (2006) subsystem of modality within the interactive visual metafunction of the Grammar of Visual Design (GVD). For Kress and van Leeuwen (2006), sensory coding orientation for modality uses colour as a source for pleasure and affective meanings, as colour can be regarded as a pleasure principle.

For Kress and van Leeuwen (2006), the more a representation looks like what we see in reality, the higher its modality, i.e, its naturalistic criterion. That can incorporate its tactile dimensions – how a given object feels and handles – its weight. They also consider the sensorial criterion, in including how an object affects its viewer in terms of its sensory modality.

For Varney (2003), toys’ pleasure principle derives from what she regards as technocracy of sensuality, a term used to refer to the sensorial mechanisms (sound, smell, weight and light effects) added by the industry to make toys more appealing at the sensorial level, which according to my findings, ends up lowering their play value. In other words, making toys more sensual has to do with making them more attractive through colours, smell, flavours, light, sound, i.e, more sensually appealing for marketing purposes.

Fleming (1996) relates the notion of tactile attachment to the flexibility and sense of cuddliness of some toys, initiated with the Teddy Bear production in 1903. Harder representationality for him is a concept that has to do with the high degree of realism of baby-like dolls.

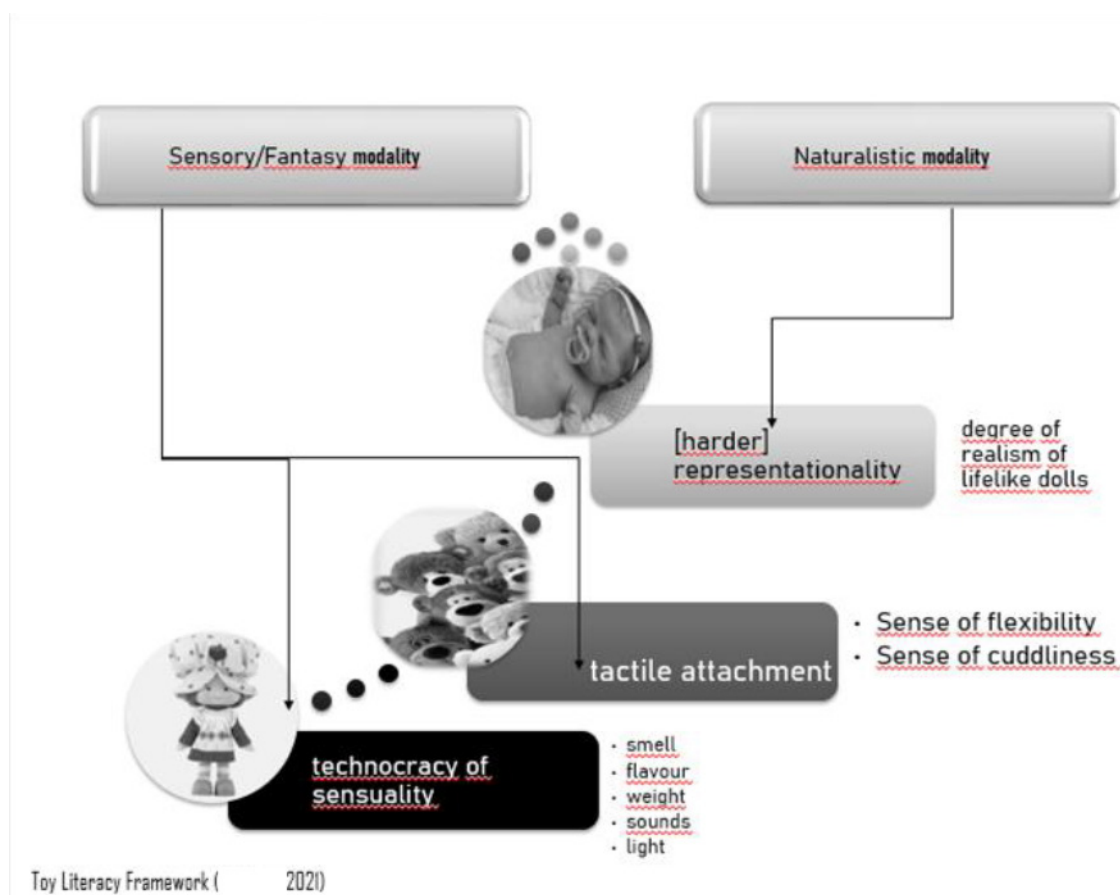
Seen in perspective, at the sensorial level, the concepts of tactile attachment and technocracy of sensuality seem to hold an equivalent correspondence to Kress and van Leeuwen’s (2006) concept of sensory modality whereas at the representational level, the notion of harder representationality seems to bear a resemblance to the concept of naturalistic modality. Figure 2 aims at visually displaying all these concepts together:

Heljakka’s concepts (2013) to investigate what creates a sense of ‘wow-ness’ – or fun – in the player, focus not only on toys’ visual and sensory aspects but also on their affectionate, narrative, sustainable and anthropomorphic values. The combination of these multimodal elements is believed to have a huge impact on the *flow* of the playing activity and on toys’ potential for playing affordances.

Thus, the Toy Literacy theory aims to combine these concepts into one single framework to be used for the analysis of toys’ materiality in terms of the degree of realism in toys’ representations and the interpersonal meanings generated by their design.

In material terms, the description and analysis of toys’ aural, olfactory and tactile aspects can be associated to the degree of modality of their representations. This can be done through the subsystem

Figure 2: Toy Literacy Framework Equivalences



Source: Almeida (2021)

of modality within the *interactive visual metafunction* of the Grammar of Visual Design, which has proved effective for the analysis of toys' properties as three dimensional objects.

A first level of observation of a toy's materiality refers to its classification as either a *humanised* or *non-humanised* toy. Such a simple identification has to do with the degree of realism of toys such as contemporary baby-like dolls, whose both naturalistic and sensory modality, in Kress and van Leeuwen's (2006) terms, is so high that they can be considered as highly *humanised toys*, especially designed to look, smell and weigh like real babies.

Indeed, Kress and van Leeuwen's (2006) subsystem of modality, located within the interactive visual metafunction of the Grammar of Visual Design (GVD), has proved to be particularly effective for the analysis of toys' properties as three-dimensional objects, as the sensory coding orientation for modality uses colour as a source for pleasure and affective meanings, as colour can be regarded as a pleasure principle.

Once a given toy is classified as either *humanised* or *non-humanised*, its modality level should be observed in terms of *sensory* and *naturalistic* modality. A toy's classification as [+/-] *sensorial* depends on how subjectively this toy's materiality affects the player at the interpersonal level in two main aspects: its *sensuality* and its *tactile attachment*. The former involves the toy's appeal to the player's senses in terms of smell, flavour, weight, sounds and light. A common example are toys designed to scent like flowers, fruits; babies and toys with lighting and sound effects maximized at their full spectrum. In such cases, these toys can be classified as [- *sensorial*/+ *sensorial*] in terms of their *sensuality*.

Checking on toys' sensory classification in terms of *tactile attachment*, on the other hand, implies paying attention to the relationship between their *material constitution* and the *affective* reaction such materiality may enhance. Whether a given toy is made of cotton, fur, plastic or wood, a different response is raised in the player at the tactile level, therefore promoting [+/-] *affective* reactions. For example, soft and plush toys, rag dolls and teddy bears tend to call for [+] *affective reactions* in terms of *tactile attachment* by evoking feelings of *reassurance*, *intimacy* and *security* through their material qualities. On the other hand, toys made of hard materials such metal, iron or wood tend to call for [-] *affective* reactions in terms of *tactile attachment* but may evoke more emotional feelings in the player by means of its *naturalistic modality*, associated to the notion of *harder representationality*.

Toys' coding orientation for *naturalistic modality*, on the other hand, refers to how close to reality a given representation is [+/-] *naturalistic*. The more real a given toy looks, the more *prescriptive* it can be considered in terms of its *harder representationality*. That seems to be the case not only of extremely realistic baby dolls, but also of costume and fashion dolls, war toys, replica animals and cars, all of which tend to have a high level of prescription in terms of *harder representationality*. When compared to other kinds of toys, these toys can be considered [+] *prescriptive* in terms of their degree of realism but sometimes [-] *sensorial* in terms of their *sensuality*. This does not seem to be the case of baby-like dolls, whose level of sensuality is generally extremely high.

This only shows that toys' coding orientation for modality does not hold a one-to-one relation in terms of verisimilitude. A good example is Machin and van Leeuwen's (2009) multimodal analysis of war toys. They concluded that although the *naturalistic* modality – or *harder representationality* – of such kind of toys is generally regarded as very *high* [+], taking that some toy guns might look like

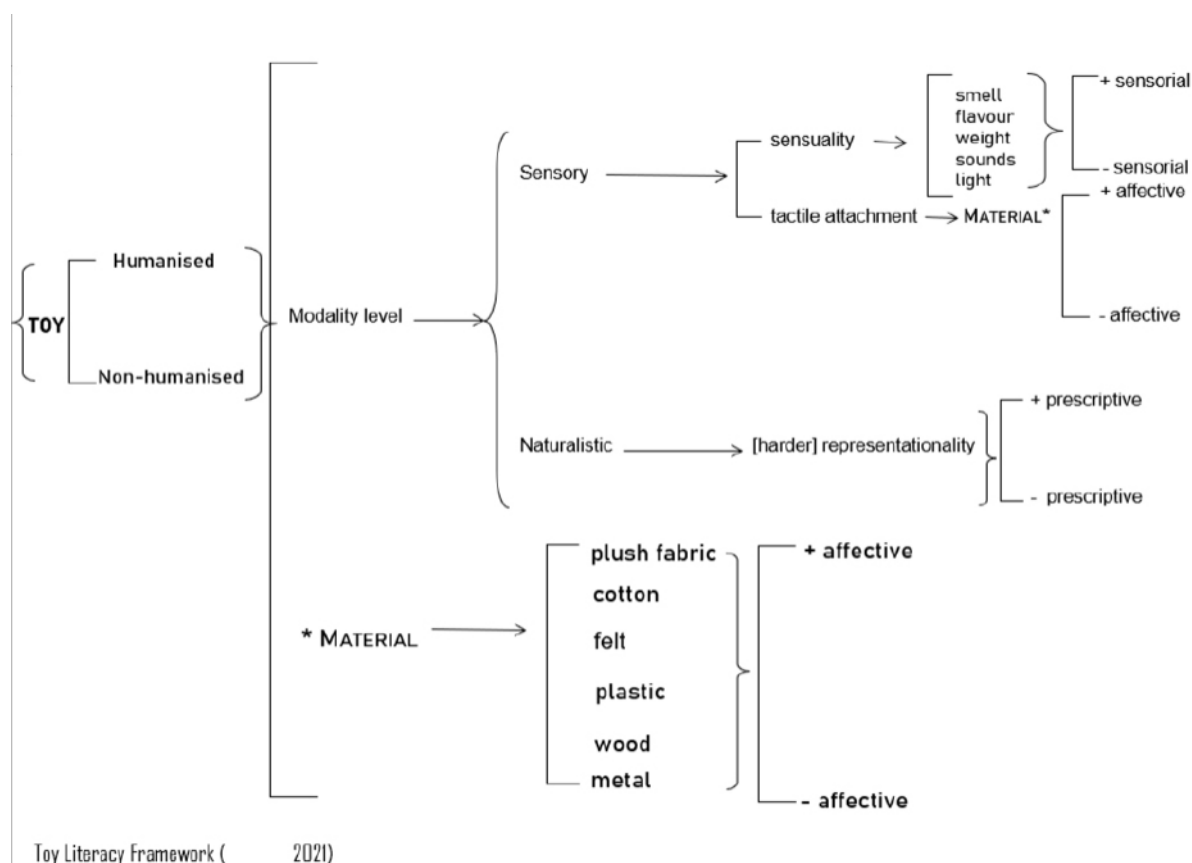
real replicas of actual guns, on the *tactile attachment* and *sensuality* level, these toys’ *modality level* is actually very *low* [–], as they may be surprisingly light in terms of weight, therefore being far from the real thing and somehow amusing in terms of their sound effects. In that case, these toys’ *high* [+] *sensorial* level ends up decreasing [–] the *naturalistic* level of their *representationality*.

All in all, seen in perspective, at the sensorial level, the concepts of *tactile attachment* and *sensuality* seem to be related to Kress and van Leeuwen’s (2006) concept of *sensory* modality whereas at the representational level, the notion of *harder representationality* seems to correlate to their concept of *naturalistic* modality.

The following Figure summarises the spelled out categories associated to the Toy Literacy framework:

In practical terms, taking the example of Brazilian baby dolls such as Coleção Nino’s² (Figure 4), from the perspective of the proposed Toy Literacy framework, one can say that not only does this particular baby doll weigh like a real baby, but it also sounds and smells like one³.

Figure 3: Toy Literacy Framework



² Produced by Brazilian toy manufacturer Cotiplás, available at <https://www.loja.cotiplus.com.br/cotiplus/bonecas/nino>.

³ “It smells and weighs like a real baby”, says Coleção Nino’s package. Translated from its original language, Portuguese. Translation remains under my responsibility.

Figure 4: Material features of Brazilian baby doll *Coleção Nino’s*⁴



Photo: author

In being designed to look, weigh, sound and smell like a real baby⁵, Brazilian Nino’s baby doll’s material configuration can be described as *[+] humanised*, in that its *sensory* modality level is increased by its manufacturer to subjectively affect its player at the interpersonal level in both *sensuality* and *tactile attachment* dimensions. In other words, Nino’s baby doll can be classified as *[+] sensorial* and *[+] affective*. Despite being made of hard plastic, it ends up calling for *[+] affective reactions* in terms of *tactile attachment* by evoking a sense of affection, comfort, tenderness and closeness through its material qualities.

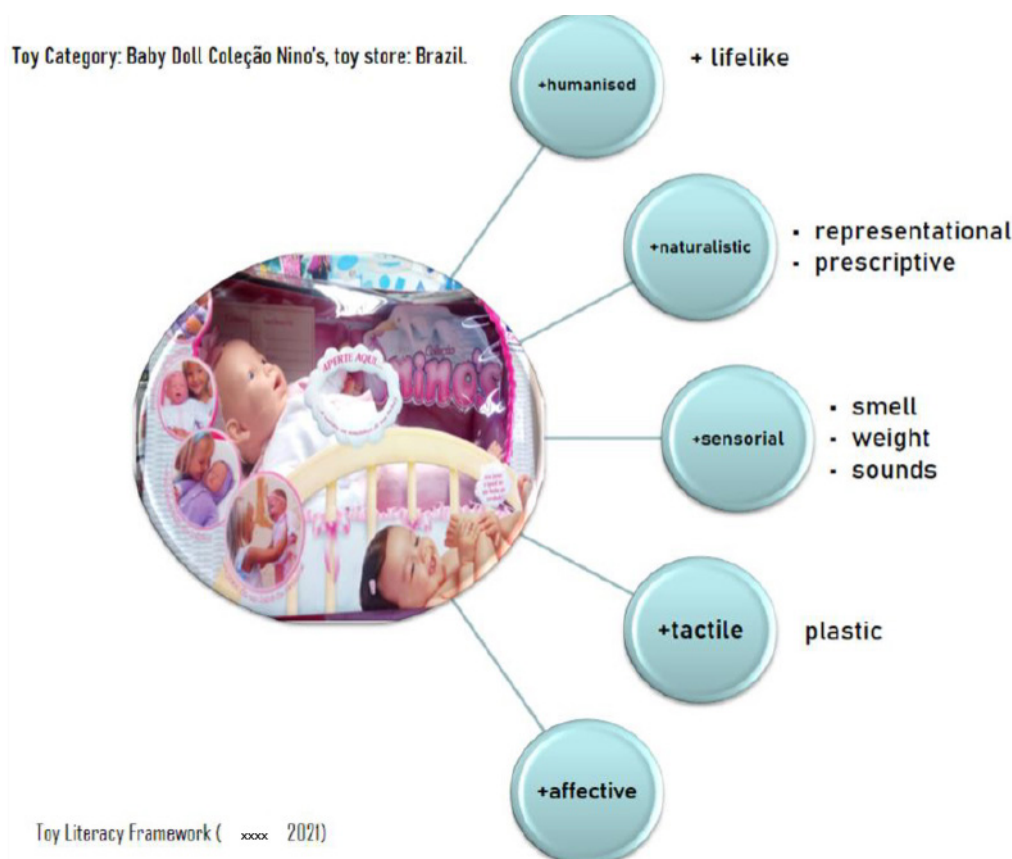
On the other hand, due to its highly *[+] prescriptive* material features, Nino’s baby doll’s coding orientation for *modality* can be considered as *[+] naturalistic* in terms of its *harder representationality*. However, it must be said that despite coming with some predefined physical props, which suggests a given playing script, it is ultimately children themselves who organise the course of their playing activity, for they are inherently endowed with the capacity to move out from the manufacturer’s pre-imposed storylines in order to reframe them according to their playing needs, as it has been wisely pointed out by authors like Fleming (1996).

In a nutshell, from a toy literacy perspective, baby doll *Coleção Nino’s* degree of modality can be considered as *[+] humanised*; *[+] sensorial* in terms of its *sensuality*; *[+] affective*, in terms of its *tactile attachment*; *[+] prescriptive*, in terms of its *naturalistic* features regarding its *harder representationality*. Figure 5 shown next summarises *Coleção Nino’s* toy literacy’s features imagetically:

⁴ This image belongs to the author’s personal archive, taken during a visit to toy stores in João Pessoa, PB, Brazil, on Brazilian Children’s Day, 12th October 2016.

⁵ “Press here and hear the sounds of a baby”. Translated from its original language, Portuguese. Translation remains under my responsibility.

Figure 5: Summary of Nino’s toy literacy features



Source: Almeida, 2021

Taking into consideration another type of doll for analysis, a handmade ballerina doll (Figure 6), made in crochet with mixed line of cotton and synthetic material and filled with synthetic wool, it is possible to notice a totally different material configuration regarding the meanings conveyed by such a non-manufactured playing artefact and its affective values.

In terms of this doll’s reality values, one can argue that it can be classified as *[+]* *humanised*, since it carries all human features to be described as a young girl through its clear design. In what concerns its *sensory* modality level, although its *[–]* *sensorial* features are not available due to its handcrafted nature, one can say that interpersonally, such a ballerina doll interacts with its player *[+]* *affectively* at its *tactile attachment* dimension. This is mostly attributed to the sense of connection and cherish that materials such as crochet evoke.

Moreover, regarding its *naturalistic* features, one can say that such a doll’s design seems to foster a more creative sort of playing through its *[–]* *prescriptive* features in terms of its *harder representationality*. Indeed, handcrafted dolls with no pre-established props tend to open up children’s imaginative potential in relation to their playing, as opposed to manufactured baby dolls’ such as *Coleção Nino’s*, whose realism ends up encouraging little girls to act as future mothers. Authors such as Peers (2004), have their say regarding toys’ realism while stating that the more lifelike a doll is, the

Figure 6: Material features of handmade ballerina doll

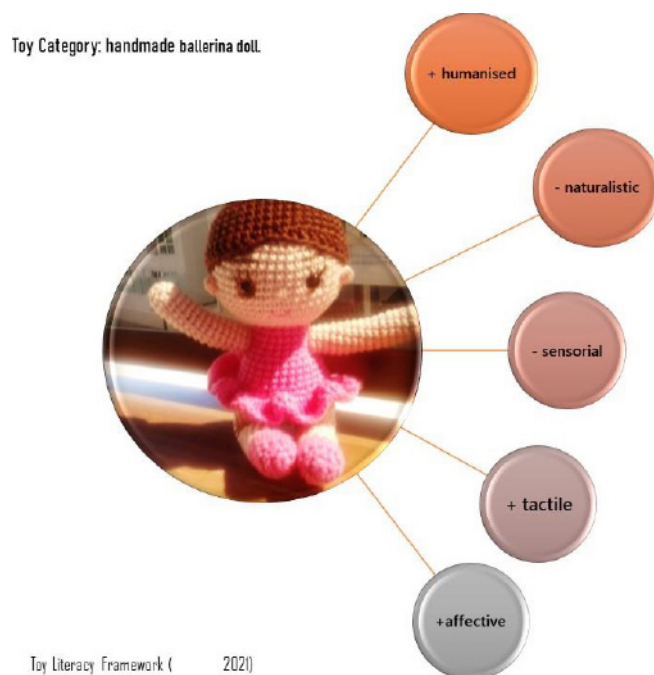


Photo: author

more prescriptive it tends to become. She contends that that “in the 20th century, plastic baby dolls were modelled as genitally complete, and sold with umbilical binding and identity tag, as if the child who received it had recently given birth to it, in a further move to realism in representing babies” (p. 105). Such playing scripts offered by toys’ material configurations have also been addressed by Brougère (2014), who described them as *affordances*, playing structures proposed by toys’ design, shape, weight, sounds, colours, etc.

Applying Almeida’s (2021) toy literacy framework to the semiotic analysis of this Brazilian handmade crochet ballerina doll, it is possible to point out that whereas it is considered to be [+] *humanised* and [+] *affective* in terms of its *level of tactile attachment*, it can be regarded as [–] *sensorial* regarding its *sensuality* parameters and [–] *prescriptive* concerning the *naturalistic* nature of its *harder representationality*. Figure 7 rounds off this dolls’ toy literacy main features:

The particular case of the modality of war toys has been addressed by both Machin and van Leeuwen in their article “Toys as discourse: children’s war toys and the war on terror” (2009), in which they provide a detailed multimodal analysis of contemporary war toys. In their view, on the tactile level, war toys such as toy guns can be considered as far from ‘the real thing’ as they can be, for they are generally “surprisingly lightweight and insubstantial” (p. 58), despite being impressively naturalistic in terms of visual and aural details, as some toy guns actually look as replicas of real guns. In other words, playful/fantasy guns would differ from realistic guns in that the latter “are visually, and to some extent aurally, ‘documentary’, [whereas], fantasy guns sacrifice verisimilitude for pleasure and sensation [through their] bright colours, flickering lights, quasi-musical sound”.

Figure 7: Summary of Ballerina crochet handcrafted doll toy literacy features

Source: Almeida, 2021

If analysed from a toy literacy perspective, toy guns, according to Machin and van Leeuwen (2009), could be classified as [–] *tactile* and [–] *affective* but [+] *sensorial* in terms of their *sensuality* parameters. Concerning the *naturalistic* nature of their representationality, as much [+] *prescriptive* as toy guns may seem, the authors contend that they do not necessarily incite children to rehearse their roles as violent soldiers in the future although they do “introduce children to the values of the society in which they are growing up [as well as] a certain kind of masculinity and [...] the signifiers that express them [...], [since] it is not the case that children who play with guns become criminals [...] but [...] get to understand the contemporary discourse of war, and to experience its attractions” (p.59).

On the other hand, considering war toys such as best-selling *Marvel Studios’ Civil War Captain America* for analysis (Figure 8), one can say that despite being considered [–] *humanised* given its low lifelike features; [–] *sensorial* in terms of *sensuality* in that it does not call for any aural, olfactory or visual sensation; [–] *tactile* and [–] *affective* in being made of a hard plastic that does not stimulate the creation of an emotional bond with the toy; it can however be described as [+] *prescriptive* in terms of its (harder) *representationality* for its storyline is practically given to its player like a manual.

The findings for *Marvel Studios’ Civil War Captain America* toy literacy analysis can be diagrammatically presented as follows (Figure 9):

All in all, the Toy Literacy framework has proved to be effective for the analysis of toys’ materiality. The theory lies on the elaboration of a framework for the analysis of toys’ multimodal features, which can be considered both timely and ground-breaking due to its cross-cultural aspect and the promising nature of revealing toy meanings that have remained concealed across time and cultures.

Figure 8: Material features of Marvel Studios' Civil War Captain America



Photo: author

Concluding Remarks

This article has attempted at presenting the main categories of an elaborated Toy Literacy theory aimed at being used for the analysis of toys' materiality in terms of the degree of realism of their representations and the interpersonal meanings generated by their design.

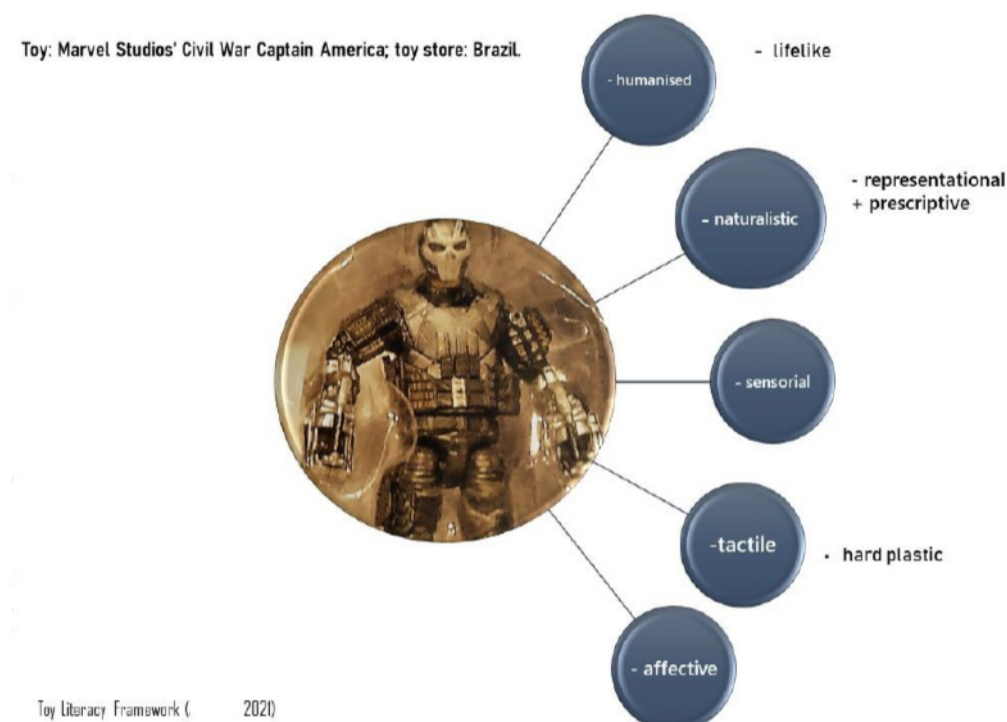
In a sense, the innovative aspect of this theory lies in the combination of several theoretical concepts (Fleming, 1996; Varney, 1999; Kress and van Leeuwen, 2006; Heljakka, 2013) from different fields (education, social semiotics, linguistics, visual and cultural studies) for the elaboration of a framework aimed at assisting different social sectors to look at toys' design in a more systematic and critical way.

In a way it has never been done before, I have intended to provide different audiences – from educationalists and researchers to designers, manufacturers and consumers – with a tool to decode some of the messages concealed by the multimodal choices behind toys' design and other representations, such as their packages and campaigns.

Its novelty is that the Toy Literacy theory may contribute to the *academic sector*, since it may help the training of students and researchers from a range of areas of expertise in introducing a view of toys as *texts* and a discussion on the *modus operandi* of the toy industry, by calling attention to its mechanisms of designing, advertising and commercializing.

Also, the *public sector* (children, parents) may be aimed at demystifying a commonsensical view of toys as mere objects of children's entertainment to propose a reflection on toys' embedded meanings through a more careful observation of the verbal and visual choices of toys' packages and campaigns and the design of their material configurations, thus enhancing the questioning of the *status quo* of the social structures pertaining to their gender and cultural representations, which otherwise, would not be revealed.

Figure 9: Summary of Marvel Studios’ Civil War Captain America



Source: Almeida, 2021

By means of a metalanguage, the *economic sector* (toy manufacturing and designing) can also be helped to identify the preferred multimodal patterns as well as the common regularities of a range of most popular toys from different countries across time.

Last but not least, the *educational sector* (teachers, educationalists, schools, faculties), might be able to offer both children and the teaching staff a more critical look on their toy choices therefore fostering reflection about the playing process at the school context, thus contributing to what can be regarded as ‘toy literacy’.

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