Toys and Product Longevity

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ABSTRACT

This article explores how a child's personalization of play themes is connected to the experience of play and furthermore how such creative activity can influence feelings toward toys, and subsequently how this affects the degree of pleasure elicited by play, and finally how this influences the toys' longevity. The basis for the study is an experiment performed with children from 6 to 9 years old, where situations of purchase and play, were observed. The empirical data is explored within the framework of pragmatist aesthetics and *Art as Experience* by John Dewey. This analysis brought forth the following key factors for classification: *intellectual classification, recognition, resistance, and creation of personal experience.* The analysis suggests that there is a tendency for children not to create their own play theme when a new toy is presented through associated media that proposes a theme for the play activity. Furthermore, it is suggested that the personalization of play themes enables the child to create personal experiences, a factor that contributes to a higher degree of pleasure, which can delay the child's desire to replace the toy. Implications for designers: create toys that let the child in on the process of creating and altering play themes.

Keywords: Personalization of Play Themes, Transmedia Storytelling, Product Longevity

INTRODUCTION

Today's toys often exist on multiple media platforms. Each type of media, such as games, cartoons, and tangibles, influences the experience of the toy and the manner in which children play with it. This complex toy-media platform presents a play theme through, for example, movies, cartoons, or games, and is called *transmedia storytelling* (TS). Although toys that utilize TS often demand quite a bit of learning, planning, and skills, they also prescribe how to play, which theme to play within, and consequently the child's play experience.

Children in Western society are locked into an unsustainable consumer behavior since the constant offerings of novel must-haves, presented through TS, make a strong context of influence . Children cannot be expected to understand the consequences of such consumer behavior in relation to the environment, as they put pressure on their parents to purchase toys. There is plenty of evidence that attitudes or intentions influence behavior . If children and their parents understood the consequences of their consumption, and would want to become sustainable actors, these attitudes are often overrun by habits . Accordingly, strategies of consumer-product attachment (CPA) that can influence toward sustainable behavior without having to change attitudes and norms might be effective in order to reduce the replacement rate of toys.

As toys influence play, play enabled by a toy affects the degree of attachment toward the toy. The child connects experiences that emerge by play, throughout all stages of ownership of the toy, to the toy itself . Thus, the toy's ability to elicit experiences is connected to how long a person hangs on to it , given that one does not replace products that are treasured. Even though people have the propensity to favor new things , strong feelings of attachment toward a toy make new products offered on the market less tempting .

Product personalization is a strategy recognized to elicit feelings of CPA, and it involves letting the user in on the making of a desired product before, during, or after purchase. Providing opportunities for the user to alter a product during the whole ownership has been suggested as a way of strengthening feelings of CPA . Toys can often be physically altered. However, the associated theme that comes with the toy, such as *Star Wars* or *Harry Potter,* is often permanently attached to the physical toy or its parts, which hinders the making of new play themes.

In order to study how associated play themes that come with TS-toys can influence the degree of CPA and consequently the durability of a toy, we (researchers in adult learning and art and design) performed a play experiment with children aged 6 to 9 years. In the experiment, the children were taken to a toy store where they got 100 NOK each to buy a toy. They rode back to school after the purchase to play with the new toy in a room with tables prepared with do-it-yourself (DIY) materials. As one would expect, the children automatically started to play with the materials on the tables when they had finished playing with the toys. As this activity proceeded, the children started to create their own play themes, a situation that did not happen while they played with the TS-toys.

The dimension of the children making their own play themes was analyzed in relation to product attachment through the research question of: How can one understand the design of toys that promote product longevity within the theoretical framework of pragmatist aesthetics (Dewey)?

Section 1 provides an explanation of the approach for the study. Section 2 offers a short synthesis of play theory. Section 3 describes the contemporary situation of toy design. Section 4 gives a brief overview of social aesthetics, which, along with the theory on pragmatist aesthetics in section 5, forms the basis for the analysis of play.

METHOD

The Experiment

The empirical data explored through theory is engendered by way of a play experiment. The experiment was set up to study children's behavior while planning to purchase, purchasing, and while playing with the purchased toy.

The experiment involved four groups of nine children aged 6 to 9. The children were transported in groups by bus to the local toy store where they got 100 NOK each to spend on a toy. After the purchase, the children rode back to school to play. Groups 1 and 2 had access only to the toys they purchased when they came back to school. The rooms in which groups 3 and 4 played were prearranged with extra materials such as tape, paper, plastic tubes, and ropes on the tables.

While observing, we noted instances of peer learning, initiatives toward other children, fantasizing and creation of play themes, isolation, cooperation, sounds, and movement. The observations were documented as notes, as the approval given by the parents did not include video recording. The observations were partly participatory in the sense that the children involved the observers in play and asked for help when needed. Master students in product design observed one child each, and the researchers did an overall observation. The children were observed before, during, and after the purchase of a toy and in particular when playing with toys.

In group 3, all nine children bought Lego toys. The probability of disclosing tendencies of play was therefore assumed to be higher in this group since all children had similar toys. Accordingly, this study refers mainly to the empirical data engendered from this group.

The Analysis

The analysis of the empirical data engendered by the experiment was explored through the theory on CPA and Affective and Pleasurable Design (2021)

pragmatist aesthetics described in John Dewey's book *Art as Experience* . The practical aim with this approach was to engender categories that could be used for the analysis of the empirical data. This was necessary in order to study how transmedia storytelling-toys (TS-toys) influence the degree of children's personalization of play themes and following-play experiences. The key terms explored in this study—namely intellectual classification of objects, recognition, resistance, and creation of own experience—appear in sequential order in Section 5. Besides a theoretical exploration of the empirical data, this analysis is also meant to illustrate theory.

Dewey's works describe the possible complete aesthetic experience, and real pleasure, rather than seeing experience as a diversion. This understanding of experience and pleasure can contribute to the understanding of the CPA strategy of personalization within the domain of toy design and longevity.

Longevity is, in this paper, understood as emotionally durable design, in which the emotional tie to a product elicits feelings of CPA and an urge to hang on to a product rather than replace it .

Personalization of play themes involves the act of creative thinking and behavior. This study acknowledges Czsikszentmihalyi's definition of creativity as a "process by which a symbolic domain in the culture is changed" . The creative act in this context involves creation or transformation of play themes, physical objects, and rules and games. Research that describes the dimension of making performed by the common man, without the intervention of a designer, is often referred to as "do-it-yourself" (DIY) activity . Research on DIY activities involves, among others, the exploration of how people's perceptions of a product change through the actions of altering or constructing it.

In this study, a *toy* is defined as a play concept that can include an object and/or cartoons, sounds, games, and other possible media. A play theme is understood as the plot in which the child plays and the context in which a toy is presented. Observations in this study show that play themes presented through TS-toys are linked to the experience of them and the content of play. Therefore, there is an emphasis on TS-toys in this paper.

Play is defined in various disciplines and is often seen, from evolutionary and psychological perspectives, as a way of preparing for life . These perspectives are typically oriented toward the consequences of play and the purposes play serves, such as the obtaining of skills, and not what "play is in itself" . This research is oriented toward the content of playing and how this activity can stimulate the making of personal experiences. Therefore, Huizinga's definition of play as a voluntary and "free activity standing quite consciously outside ordinary life as being not serious" and "fun" is recognized. Free, in this context, is understood as voluntary but not free from influence.

The fact that play is not "serious" in this setting does not mean that play is not perceived as serious by the participant; on the contrary, a player can engage "intensely and utterly" . Within the boundaries of play, a player would indeed ruin the game without serious intentions . A high degree of seriousness involves the participants taking risks. Moreover, "it is the risk that makes play attractive" .

TRANSMEDIA STORYTELLING

Huizinga points out that play does not depend on material equipment. Nevertheless, it can be triggered, encouraged, or sustained because of equipment such as toys, or related themes presented with or in addition to equipment . This view is in line with Gadamer, who stated that conscious aesthetics can elicit activation . Furthermore, partaking in rituals and games often involves, or even depends on, products or toys .

Toy manufacturers have found that toys linked to media are often the bestselling ones . Early mass-produced toys typically emerged out of children's interests in firefighters, motherhood, war, or fairy tales, but they also came from popular culture, such as comic books like *Superman* . *Superman* comics or cartoons can offer children suggestions for how to play *with* the action figure while also serving as market channels *for* the action figure. The success achieved by presenting a toy connected to a narrative, as in this example, has led to a development strategy that starts with the creation of a narrative followed by the development of tangible toys. The movie *Toy Story* is an example of such a process, in which the movie "actors" are in fact toys, which are, in turn, sold as real toys. The development of such toys that perform across multiple media platforms has led to the creation of *supersystems*, in which a toy merely forms one part of the whole concept . As Kinder explains:

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> In order to be a supersystem, the network must cut across several modes of image productions; must appeal to diverse generations, classes, and ethnic subcultures… must foster 'collectability' through a proliferation of related products; and must undergo a sudden increase in commodification, the success of which reflexively becomes a 'media event' .

The advertisement of toys has, in other words, shifted from the announcement of information on different media platforms to toys being a part of games, cartoons, the Internet, tangible objects, and movies. Each type of media represents different sets of challenges and ways to play and, therefore, often reveals different pieces of information about the narrative to form the whole plot. Marsha Kinder coined the term *transmedia intertextuality* to explain this division between the supplementary dimensions of a toy that enlarge the experience and the toy's market potential . Henry Jenkins later uses the term *transmedia storytelling* .

Gadamer argued that formations or contexts brought about by conscious aesthetics place something *"into play"* . Accordingly, TS-toys can lead to new understandings or experiences enabled by the broad structure of the toy, associated play theme, and possibilities as well as limitations. Moreover, a toy can give a child a "guided reinvention" that can stimulate or push the child toward action, creation, or the formation of solutions and games **.**

DESIGNING FOR PRODUCT ATTACHMENT

People purchase out of the urge to generate positive emotions . The degree of CPA can be understood as the strength of emotions toward products , and emotions elicited by products are referred to as product emotions . Research on CPA has engendered several strategies on how to strengthen product emotion beyond the aforementioned strategy of product personalization such as "do-it-yourself" processes (DIY) , "do it with others" (DIWO) , products that surprise , products serving as objects of transition , products perceived to be scarce , products that are owned together with other people , and products that enable different levels of activation (LoA). Many of these strategies urge designers to facilitate processes in which users take part in the creation of personal experiences motivated by the product, in order for them to cherish the product more.

The strategy of the LoA describes how a user will become more attached to products that stimulate on a cognitive, emotional, relational, perceptive, and imaginative level . The activation serves to facilitate the user to produce personal experiences and therefore memories. Moreover, the product will serve to convey memories about prior salient happenings and therefore represent meaning for the user or owner, and accordingly represent a higher degree of CPA. Thus the product and its role in the elicitation of experiences is not the most important aspect when it comes to the degree of CPA; the significance of the experience for the user is the most important factor .

The importance of designing for the various phases of ownership in order to achieve CPA is well known and a method for doing this is described in *Contexts of Experience* , among others. Similar approaches are seen in the marketing of TS-toys in order to influence consumers at the point of purchase. In order for this to happen, the product is marketed through TS. This serves to prime the potential customers. Such priming will again stimulate functions of recognition at the point of purchase, and motivate the buyer either to consider a purchase different than the established habit or to sustain the existing habit . For example, a Pokémon figure can be recognized in the store because of the cartoon shown on TV or by a digital game; consequently, it will stimulate purchases among children who have many of these figures already and those who are reminded about the cartoons or games because of the new experience in the shop . Thus, the marketing strategy involves the designing of an experience related to the product for the *pre-purchase* phase and the *point of purchase* phase of product ownership .

Accordingly, manufacturers influence consumer behavior before and at the point of purchase through the acquired attention and activation through transmedia storytelling.

PRAGMATIST AESTHETICS

Dewey emphasizes the ability of aesthetics to elicit experiences. Moreover, he finds the process of creating experiences to be a central dimension in aesthetic practice, which he describes as "the privilege of the dynamic

aesthetic experience over the fixed material object" , a privilege that implies that both the artist (or designer) and the audience are the creators of the experience. This understanding implies that there are no aesthetic truths or essences that a creation can comprise that can lead to a common definition of quality. The emphasis is rather on the "relation between thoughts and actions" .

Dewey stresses the importance of *resistance* as part of an experience that can work as an "invitation to reflection" and further lead to "a higher complexity of thinking" . In a situation influenced by resistance and conflict, aspects and elements of the self, and the world that is involved in this reciprocal influence, imprint the experience with feelings and ideas in such a way that a conscious intention emerges . He even states that there is "an element of undergoing, of suffering in its large sense, in every complete experience" . By this, Dewey implies that the perceiver must go through processes similar to those of the creator, such as the act of abstracting what is significant for the creation. Thus, in order to perceive, a *"beholder must create his own experience"* ; otherwise, the perceiver will not hear or see, and the experience will merely be shaped by norms and conventions, rather than emotional excitations .

Dewey claims that *recognition* hinders the creation of a personalized experience, namely: "recognition is perception arrested before it has a chance to develop freely. In recognition there is a beginning of an act of perception" .

The *intellectual classification* of an object influences our perception and understanding of it. Dewey gives an example of this through an anecdote. He describes a situation where an object is first recognized as a fine artwork and believed to be created by indigenous people. When it is discovered only to be a piece coincidentally and curiously shaped by nature, all of a sudden, it would seem more appropriate to have the object in a museum of natural history than an art museum .

PLAY EXPERIMENT IN LIGHT OF PRAGMATIST AESTHETICS

Observations from the Experiment

The observations from group 3 are divided into two charts. Chart 1 (Figure 1) provides observations of the children while they played with Legos, and chart 2 (Figure 2) provides observations of play with the DIY materials. The observations of activities are classified within the categories outlined in the theory (Section 5), which are: intellectual classification of objects, recognition, the degree of creation of personal experience and premade experience, and high and low resistance. Objects which were created with the DIY material, with the associated play themes that occurred, included signs with hearts, a hotel shower-toilet, a plane, four fantasy toys (which were played with, but for which the observers were uncertain about theme and function), TV2 News show, a heliport, skis, and a unit for keeping spare Lego parts in order.
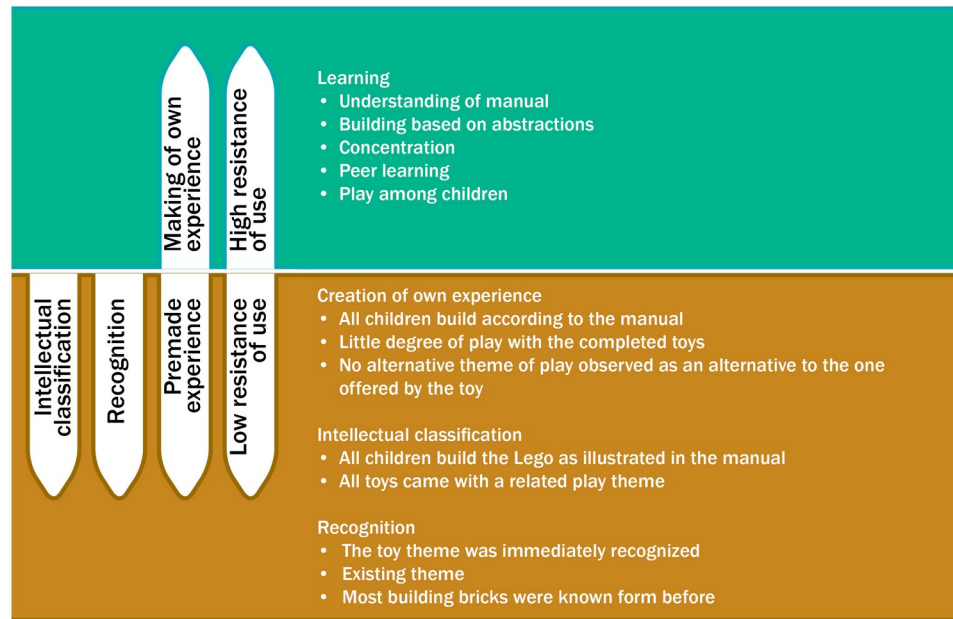
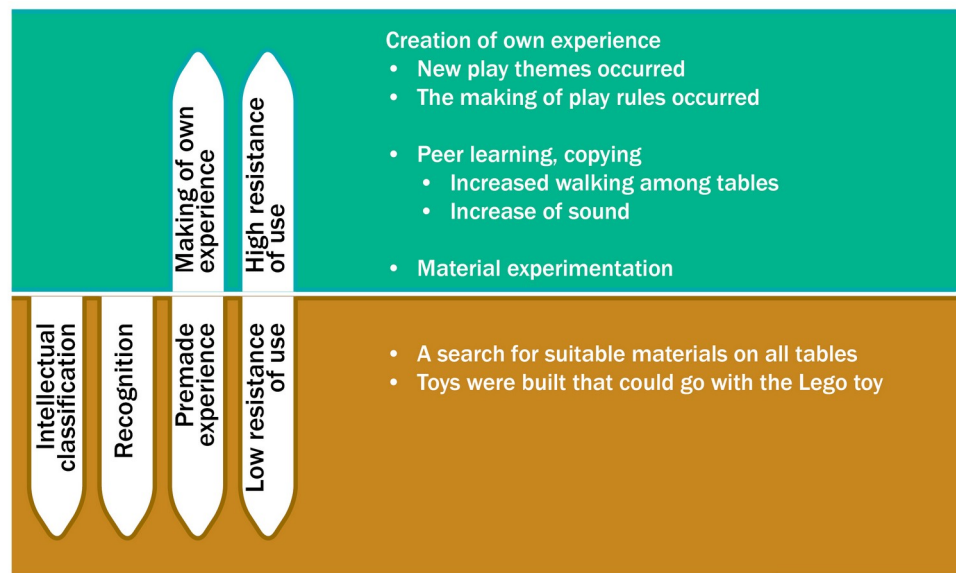*Figure 1. Observations from play with Legos, placed within categories of pragmatist aesthetics*

Figure 2. Observations from play with DIY materials, placed within categories of pragmatist aesthetics

Intellectual Classification of Objects

TS-toys are connected to a larger system that includes cartoons or films produced by the toy company (such as Pokémon or Chima) or existing successful films (such as *Star Wars* or *Lord of the Rings*). Such systems serve to place a product within an intellectual classification. The aim of establishing systems like this is to meet with the themes in which children are already engaged and to achieve "recognition" (see next chapter) at the point of purchase. Cartoon narratives, created in order to establish play themes in which to present toys (which are viewed on, for example, cartoon TV channels) and to intellectually classify are, with the obvious exceptions, often cognitively easy to grasp, unchallenging, and have an easy-to-foresee ending. Typically, the play themes describe a "good against evil" plot in which the good prevails in the end. The characters in these cartoons often clearly describe

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who is good or evil through appearance and behavior.

Observations from the play experiment in this study show behaviors inspired by the themes conveyed by the toys. For example, the children dueled with swords and spun a Beyblade (whirligig game). In relation to the latter, one child coupled the play with the Beyblade to the characters in the pertinent TV cartoons. As one observer noted: *"The oldest boy referred to what they were saying in the cartoon when spinning the Beyblade."* Another example is from playing with Lego Friends. From the observation:

> *The Lego building set was built around the theme of karate … she also started to play karate with a friend, using some of the equipment from the Lego set. We asked her why she did it; she said, "Because they do it in the set." She also said that she wouldn't be bored of this karate set because she could do it over and over again …*

The children in the other groups that played with toys that had no associated play theme personalized the theme of play. One example is playing with the slime lump "SSS," as described by an observer:

> *They started to do difficult things with it such as to put the hand through it, using it like a bracelet. "Doesn't that hurt?" they said when different children tried it. They had a good tone. Using the area. Walking, running around cheerfully. They also started to play with other groups; they started a game, trying to hit each other's faces when standing behind a board with holes in it. At the end, four kids were playing this game with children constituted from different groups.*

These examples show that the combination of toy and play theme offered by a toy is linked to how children play with it. These few examples may, therefore, illustrate the theory of how intellectual classification by the representation of a play theme influences behavior and experience.

Indeed, the Lego toys were connected to play themes, but they only stimulated a small degree of play in this experiment. This might be because the children did not think of Legos as toys. As one girl who had been constructing an object with Legos said, *"There, now I can play!"* When an observer asked, *"What have you been doing so far?"* the girl replied, *"Building of course."* Furthermore, the children might have felt that they should build the Legos first to show their gratefulness for receiving the toys.

Recognition

Some children put aside the toys that they bought during the experiment after only a short while. This might have to do with the fact that the children found it difficult to buy something they liked within the limited amount of money and time they had in the store. It might also have to do with purchases made on impulse due to recognition, which, in some situations, might have arrested the children's attentions before they had a chance to develop freely . Furthermore, the toys that became uninteresting after a short while (such as swords and a coin flip battle game) did not seem to challenge the children in any way. They knew how to use them and did use them, but the play lacked any kind of creation of new themes. As one observer put it, "Now I know that children are not able to buy what they like in a toy store." Recognition is obviously valuable for sales, but it offers only "a beginning of an act of perception" . Therefore, according to Dewey, recognition does not stimulate a full experience. Recognition is a process comparable to the methods used in brand development today, built around the effort to build positive associations .

Resistance

Within the works of Dewey, aesthetic experience has to do with the recipient having to make some sort of effort or partake in the experience for it to be whole or meaningful rather than incomplete or false . Play themes presented by a TS-toy do not necessarily hinder the imagination or fantasy, as mentioned earlier. Children love repetition and predictability. For example, they often want to listen to the same book hundreds of times, perhaps out of feelings of safety and stability or as a starting point for imagination. It is likely that this is the same for toys. Lego and fire engine toys have been a success for decades, possibly because they motivate the creation of personal experiences. What the observations from the experiment indicate, however, is that when the play theme is *strong*, such that the child knows the story by heart and learns how to play with the toy through associated plots, cartoons, games, and

movies, it is more likely that the toy will influence play. Accordingly, the accessibility of TS-toys seems to reduce the resistance to use by offering a play theme that the child, unconsciously and with ease, can lapse into.

The observations of play showed that when children played with the extra provided materials, there was a sudden occurrence of new play themes. This implies that when a toy does not have a prescribed use, it offers a dimension of resistance within play that stimulates the creation of personal experiences, and subsequently personalization of new play themes emerges.

Creation of Personal Experience

Observations from the experiment show that the children built the Legos in accordance with their manuals. Logically, the toys were purchased through recognition of pictures on the packaging. The children were familiar with the toys from cartoons and games, and, naturally, they would want to build the toys to match the world presented by the play theme.

Presumably, when a Lego object slowly fragments into pieces, it becomes natural to use the bricks for novel creations in spite of prior rules for assembly. Thus, if a toy is possible to deconstruct, parts of a prescribed toy can somewhat turn into building materials liberated from a given theme. Hence, the theme is weakened but can still be mediated through form, color, and function of the pieces. Such a weakened play theme can serve as a guided reinvention . For first-time assembly, however, the associated play themes seem to have more influence. The Lego designs chosen by the children in the experiment only offered a few themes of experience, and they were either identical or had similar forms. All the children could, with a mere glance, identify which parts belonged to which themes. Accordingly, the space within which to experience them was confined, and the children were not called upon to create their own play themes.

It is reasonable to think that the assembly of Lego sets according to their manuals promotes learning of new ways to assemble standard and new objects. This skill can enable children to create novel objects in the future. Nevertheless, manuals for assembly do not motivate the personalization of play in terms of fantasizing and imagining while exploring through construction. They provide an easy way out in comparison to the resistance demanded by planning, experimenting, and failing when building self-initiated creations. Dewey pointed out that it is "the integration of parts and the conscious handling of these that make the perception of a complete experience." The final result—the completed Lego set—is not necessarily the most significant experience by itself, just as a "drama or novel is not the final sentence, even if the characters are disposed of as living happily ever after" . Rather, the most significant experience is the process of creation.

The act of building Legos did certainly include dimensions of resistance in this experiment. Many children found the assembly difficult and needed to concentrate or get help from fellow pupils. Yet, the children followed a formula of creation, and their end results were identical to the results of millions of others and to those prescribed on the package, and the toys assembled suggested a play theme.

PERSONALIZATION OF PLAY THEMES/IMPLICATIONS FOR DESIGN PRACTICE

During the experiment, the children invented new themes of play while using the DIY materials. All children made objects and personalized the play themes. Thus, in the absence of a given play theme and related fixed-form vernacular, the children created these factors themselves.

The theoretical study of these observations indicates that the degree of personalization of play themes relates to resistance, recognition, creation of personal experiences, and a toy's intellectual classification as factors of play (Figure 3). Furthermore, the analysis indicates that when a toy comes without a play theme, it stimulates cognitive, imaginative, and creative thinking. This is attained by designing the toy so that it demands a high degree of play resistance and encourages children to create their own experiences. Furthermore, when functions of recognition and intellectual classification conveyed by the toy have little influence on the play experiences, this seems to further stimulate the personalization of play themes (Figure 3).
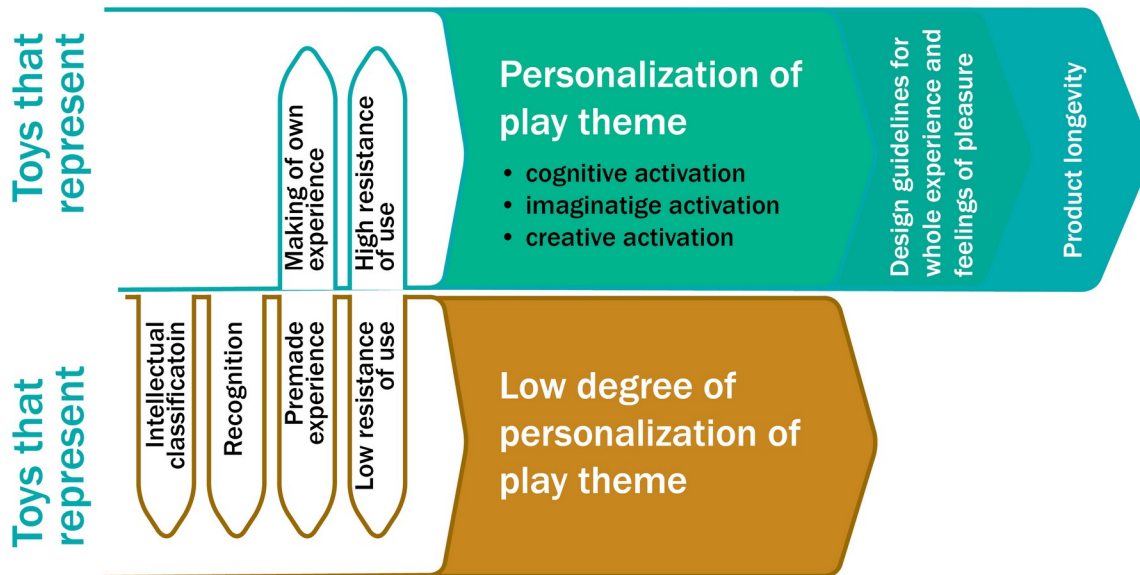
Figure 3. Toys as part of play contexts

Although transmedia storytelling acquires attention and activates children through the available different platforms of play, it seems to hinder the personalization of play themes, presumably because the strength of the theme goes beyond guidance . Letting the child in on "similar processes as the ones of the creator" however, namely to partly transform, alter or create both the play themes and the bodily structure of the toy, seems therefore to be a primary function for designers to infuse, in order to create toys that stimulate the personalization of play themes.

The observations that this paper builds on are conducted during the first hour of play with a new toy. Obviously, a toys function will change over time. Lego sets do represent a challenge and demands concentration by the assembly of a concrete structure based on the learning from an abstraction presented in a manual. Nevertheless, it seems that the low resistance that these toys represent thematically, prevent own thinking in relation to which theme to play within. When a Lego set slowly turns into DIY materials however and the prescribed toy is fragmented, the toy opens up for the making of own play themes.

Avoiding or reducing factors of intellectual classification and recognition, is in a traditional sense, in conflict with market value. The study of the data in relation to pragmatist aesthetics, however, suggests that TS-toys adversely affect the play experience because they do not elicit whole experiences or lead to feelings of real . Accordingly, toys that sell through market mechanisms often considered to inspire people to like something, such as *wow* effects, convenience, and easy accessibility, do not elicit real pleasure. Hence, unsatisfactory experiences caused by boredom or short-term interest are negative dimensions for the brand value. In order for toys to be treasured in the long run, however, it seems that the toy concept should balance factors of possible personalization of play themes and guided reinvention. Accordingly, toy longevity can contribute to market success over time, as it can contribute to sustainable consumption.

It is reasonable to suggest that toys designed for personalization of play themes, as proposed, will hold the child's interest longer due to the potential for continuous transformation, change, and uniqueness as well as the thinking it requires. A toy theme that has been personalized will possibly serve to elicit memories through the individual and social happenings that are linked to it, factors known to attach people to products.

For the continuance of this work, further research is suggested to explore the effect of the key findings (Figure 3) as design parameters for toys. Toys designed using these parameters could serve as the foundation for a new play experiment.

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