

# Rebel by design: the merits of rebellious play and how to design for it

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**Abstract:** Play as a behavioural domain is characterized by freedom and flexibility, which contribute to both short-term and lasting wellbeing. Children play increasingly under supervision of adults, who generally perceive rough and rebellious behaviour negatively. The paper argues that also rebelliousness is a valuable aspect of play. The psychological research literature and case studies of design are used to explore the interplay and tension between the inherently social nature of rebelliousness and its role for the emergence and consolidation of individuality in play. This perspective is then extended to designers as creators of the tools of play: toys. Several basic design techniques are presented with the aim of understanding and appreciating rebellion within play and supporting it in design for play. The paper concludes that the psychological theories and design techniques described can be of help to designers; an understanding of the needs of children to freely explore also behaviours that go against ‘good taste’ or commonly appreciated manners help designers to open up the design space to create more diverse and less stereotypical toys that support wellbeing.

**Key words:** *Design for play, rebelliousness, wellbeing, toy design education*

## 1. Introduction

In contemporary Western cultures, children’s lives have become more structured and programmed than before. They spend more time in schools, day care centers and formal clubs, where adult supervision influences their possibilities for play, and especially for play that is regarded as inappropriate. Adults for instance judge play fighting as real violence more often than children do [10]. Also, under adult supervision Halloween’s ‘trick-or-treat’ festivity has lost its element of ‘trick’ and unescorted roaming of the neighbourhood [12].

With less time spent outdoors, opportunities to play without supervision and engage in mischievous play decrease. Inside, the play opportunities are more restricted by the context and more closely bound to formal toys – that generally have more determined meanings and functions and need to be handled with more care than, say, a stick or a stone found outside.

It can be argued that the reduction of possibilities to act in a non-conforming or rebellious fashion does affect children’s quality of life [19]. Self Determination Theory [6, 15] assumes that the level of an individual’s psychological wellbeing is determined by the interplay of three main components: autonomy, competency and relatedness. The voluntary decision to act in a non conformist/rebellious way is an assertion of autonomy and competency. Play provides a relatively safe platform for experimenting with decision making beyond given rules. By doing so an individual explicitly takes responsibility for their actions and learns from the consequences. This is quite different from acting according to given rules where the responsibility for the action lies to a large extent in

the hands of the rule maker. By reducing opportunities for self-asserting and non-conformist decision making, and with it the experience of its consequences, children are deprived of an important tool for learning about their own effectiveness and ultimate responsibility for their own actions in a physical, social and moral way. Intentional rebellion is a strategy to temporarily change circumstances so that they fit individual needs instead of adapting to given circumstances. Wellbeing requires a balance of conformist and non conformist behaviour. Overreliance on conformist behaviour does compromise autonomy, responsibility and individuality. Constructive conformity and rebellion develop in context and need to be learned. The paper will explore in what ways design for play can contribute to a better balance between rebellion and conformity in children's lives.

An often-heard complaint in the popular discourse on toy design is that contemporary toys are too defined and scripted, with the consequence of limiting play to pre-determined actions a player only needs to recognize. Toys largely seem to follow the clichés and implicit rules of their categories and confirm stereotypes for gender and other roles. The industry supports this by using a traditional product-category based classification, as can be seen for instance in the catalogues of the important Nürnberg Toy fair [17].

The next generation of toy designers also seem to conform to established toy market standards. Based upon a decade of experiences with coaching (international) master students in design, the authors note that when these students are asked to develop toys or games, they often stay very near to what they already know or find in the toy stores, and apply a dominantly educational or developmentally oriented design orientation.

Play however has a broader function than to learn or develop skills. Play is also a safe haven for children in which they can explore the full array of their behavioural possibilities: the good and the bad. It is also the place where intrinsically motivated autonomous behaviour produces an enjoyment that functions as counterweight to the seriousness, competitiveness and prescribed character of daily life, and as such contributes to the wellbeing of the child. Thus, to go against what is generally considered to be 'good behaviour' must have its place in play and designers of products for children's play should cater for this as well.

The influence of abovementioned overreliance on conformity in play (less time spent independently, more adult influence on play, more reliance on formal toys, little innovation in the toy industry) is difficult to assess. Children are resilient creatures that may find ways to cope with the changing contexts and appreciations of play. Yet these issues are of considerable importance and interest and they brought the authors to explore the relations between rebellion and play. In this paper, a first account of their findings is presented. Psychological research literature and case studies of design are used to explore the interplay and tension between the inherently social nature of rebelliousness and its role for the emergence and consolidation of autonomy and individuality in play.

Insights are presented in the role designers of playful products can have in facilitating rebellion with the intent of supporting wellbeing, and some techniques are described that support the designer to defy some of its own self-imposed obstacles to inhabiting the world of the playful rebel.

## **2. Theoretic perspectives on rebellion and play**

### **2.1 Rebellion as tool for self-determination**

Rebellion can be defined as "wanting, or feeling compelled, to do something contrary to that required by some external agency" [2, as cited in 13]. When the general understanding that rebelliousness means "disobeying social norms" is looked at from a more abstract viewpoint, it can be understood "as a fundamental process of coping

with social influence” [1]. This viewpoint allows to get away from the negative moral evaluation towards a more neutral and productive view of rebelliousness becoming a tool for self-determination in everyday life.

Breaking explicit and implicit rules is part of an effective strategy to learn the consequences of various behaviours and appreciate the value of cultural codes, such as norms [9]. The safety of a play frame provides a platform for these adaptive processes to happen [4]. A play frame or pseudo-reality generates an often implicit agreement that within the act of ‘play’, common rules are suspended and new temporary rules are established. An example is play-fighting, in which children allow aggression; or playing school, in which one child is allowed to dictate rules of obedience to another child. An important aspect in this is the realization that whatever is done within play, ends when the play ends – there are no serious and lasting consequences. Even in solitary play, the child is aware of its activity being ‘only play’. It is within this freedom that a wider array of behaviours can be appreciated: good and bad, heroes and villains, aesthetic and squalid, praiseful and offensive.

Diversion from normative behaviour then gives the child a chance to appreciate the effects and outcomes of such behaviour, and therefore inherently contributes to an understanding of moral and social codes and standards.

## 2.2 Positioning rebellion within the rhetorics of play

The contemporary discourse on play can be categorized by seven rhetorics, firmly held beliefs anchored in a distinct value system, which have been analysed by play theorist and psychologist Sutton-Smith [18].

The rhetoric of Progress represents a cherished belief within contemporary Western society. It states that play is functional for adaptation, growth and socialization. Viewed from this perspective, rebellion in play has a function of increasing the diversity of behaviour in the sense of realizing alternatives and testing competencies in alternative action as well as in autonomous decision making.

Two other rhetorics that shed a light on the issue of the existence of rebellion are that of Identity and Self. Within the rhetoric of Identity, the formation of and belonging to stable communities is the centre of attention. Play forms like festivals, parades, traditional song and dance are regarded within this rhetoric as the glue that makes people bond through the adoption and celebration of similarity in behaviour. It also functions to signal the coherence of the group to others, and with it the negation of or active rebellion against the collective ‘other’. This view on play is mainly studied by anthropology and related social studies. Conformism and non-conformism together create social identity.

The rhetoric of Self values and celebrates the uniqueness of the individual in characteristics, skills etc. Rebellion is one means by which this uniqueness is established. Individual activities which explicitly defy conventions reflect this way of thought. In a play frame avant-garde art, holidays and other hedonic pass-times are often a platform for the establishment of uniqueness, of ‘being true to oneself’.

It is argued by the authors of this paper that rebellion becomes visible where these three rhetorics meet: the individual that chooses to defy conventions can only do so in the face of those holding on to the conventions. A rebel uses something – a rule, a reference - to rebel against, and a witness audience to acknowledge his rebelliousness. Thus, the rebel breaks with the rules of community and sets himself apart, but within the view of the community and with at least a partial intention to influence the community. Within the social context the autonomous decision to rebel means also to take responsibility for one’s own actions rather than acting according to rules made by others - a skill of outmost importance for subjective wellbeing in the short and long term.

If applied to play, this would mean that rebellion emerges not only when players defy the rules of that play activity, but also when they use play as a critique on the rules that define under which circumstances play is appropriate. An example of the second category may be found in the skateboarding culture [5] and in the early days of 'urban exploration' type of sports, like Parkour [14]. In this activity the individual player came to reinterpret the use of objects in public space: fences are for jumping over rather than keeping people away from places, staircases facilitate summersaulting, narrow alleys invite to climb up between the walls. Soon though these individuals became part of a 'counter-culture', that is, a community of its own with its own marking signals, fashion and heroes. Thus the practitioners of Parkour resist part of the mainstream culture, but conform to norms of their subculture – the rebel balances the rhetorics of Self and Identity within play. In this case the existing urban structures – fences, staircases, walls – offer the opportunity to be reinterpreted as objects of play, and development of new tools for play is not strictly necessary. Yet that is exactly what happens, as city planners and urban landscape designers are learning from Parkour practitioners to facilitate this form of play within their urban designs. The counter-culture is starting to get adopted by mainstream culture and with it provides the starting point for a new counter-culture to develop.

### 2.3 Reversals between rebellion and conformism

To explore rebellion on the level of dynamic individual behaviour, support can be found in Reversal Theory [3], which presents a contemporary psychological model of human motivation. It describes the dynamics of human motivation and behaviour based on four dimensions. One of the four motivational dimensions of this model is serious versus playful, which makes it of direct interest to designers of playful products [8,11]. Another dimension in Reversal Theory describes how humans deal with rules, with 'conforming' vs. 'rebellious' as extremes [3]. The reversals from which the theory derived its name refer to the instability of human motivation and emotional appreciation: a person may switch from being serious-rebellious to playful-rebellious, to playful-conforming etc.; in each state, the appreciation of external circumstances would lead to other internal emotional responses and motivations. For example, in a rebellious state, being improperly dressed for an occasion may lead to an appreciated experience of affronting the host and other guests, whereas in a conformist state it may give rise to feelings of anxiety and embarrassment. In a playful conformist state, one may be inclined to jokingly apologize whereas in a serious conformist state, the urge could be to go as unseen as possible.

The dynamics in this model come from the 'reversals', sudden lapses from one state in the other. Reversals between conformist and rebellious (or negativistic, as Apter calls them) states can be provoked through factors as felt injustice, constraints or frustration. Another cause for reversal comes from satiation effects: after being in one state for a while, one gets a spontaneous impulse to try out the opposite. As Apter writes, this explains the sudden and inexplicable feelings of 'irrational' rebelliousness after being within a situation that demands conformism from us for a long time. This form of proactive negativism, in which one feels negativistic and is likely to 'go out and look for trouble', is linked to the playful state.

In the life of a child, two periods are typically more rebellious: the 'resistance period' of the toddler between the age of one and three, and the 'sturm und drang' (storm and stress) period in mid-adolescence. Both are periods of transition. According to Apter, the rebellious tendencies often apparent in these periods are closely related to a shift in personal identity, thus relate to the rhetoric of Self that Sutton-Smith describes. Apter mentions that at

least three components of personal identity are maintained through negativism: personal autonomy, personal distinctiveness and personal continuity (opposing the changing demands related to the roles of a new stage in life).

### 3. Reviewing the relations between rebellion, play and toys in practice

Toys are material tools and catalysts for play. Now that we have established an understanding of the relation between rebellion and play, we can start to think of the various roles of toys herein. Within this paper, the authors use the term toys to refer to objects and manifestations created with the intention to facilitate play, including games, video games, books, playground equipment etc.

Toys that enhance the opportunity to reverse between rebellious and conformist actions would allow children to explore the benefits and risks of both conformism and rebelliousness in the safe and explicit context of a play frame. This could include activities such as taking on rebellious roles, or the inclusion of a ‘destruction’ phase within construction play. A toy or play that includes making rules and roles explicit could be another way of helping children to experiment with them – adopting roles, creating and defying rules, taking control, exerting power, opposing to authority.

In the following, we explore some aspects of rebellion apparent in contemporary toys and cases from student design projects.

#### 3.1 Empathy with the rebel

Possibly the mildest form of rebellion is indulging in empathy with rebellious characters in fiction. Famous characters like Huckleberry Finn, Pippi Longstocking or Bart Simpson allow children to empathize and feel the arousal of the rebellious acts, without necessarily modeling their own behaviour after those examples. The picture book ‘Papa ne veut pas’ (Daddy doesn’t want) (figure 1) gives a distilled overview of the many variations of children’s unruly behaviour. Though these examples treat the rebellious contents with humor, a child-centered perspective and a permissive attitude, the unruly behaviour is apparently controversial enough to form the core of these publications.



Figure 1: Illustration from ‘Papa ne veut pas...’ by Alain Le Saux, depicting ‘Daddy doesn’t want me to bite him’.

#### 3.2 Rebellion against the mission

In simulation games like Sim City, Rollercoaster Tycoon, Zoo Tycoon, the supposed aim of the video game players is to build and manage a site (city, theme park, zoo) so that it grows and flourishes. A good player builds a robust mini-society that can withstand adversities. Bad decisions are met with penalties such as air pollution,

accidents etc. It is however possible to play the game with a reversed intent, to create the worst conditions possible and see how the inhabitants suffer. Youtube displays numerous examples of players deliberately building rollercoasters to have the maximum amount of lethal casualties. A more subtle reversal between conformist and negativistic states is apparent in this player's statement:

*"Building the site takes so much time and effort. Sometimes it is nice, just for a change, to pull the ladder out of a swimming pool and see somebody drown."*

To put it in terms of Reversal Theory: the player conforms to the aim of the game for a long time, then reverses into proactive rebelliousness and performs a rebellious act within the game itself, causing a pleasurable increase of arousal.

### 3.3 Rebellion through shifting the rules of play

The game of 'hide and seek' is founded on the skill to hide and keep still. The increased ownership of mobile phones by children has changed this. Is it allowed for the seeker to make the hider's phone ring? May hiders betray each other through doing this? And if so, is a player allowed to secretly put the phone into silent mode?

The student design 'Sneak & Beep' (figure 2) embraces the principle of undermining the players' solidarity against the seeker. Each player wears a wristband with a button and a speaker. Pushing the button makes one of the other players' wristbands sound. But the player may also actuate his or her own speaker: the advantage of betrayal is balanced with the risk of self-betrayal. The game gets a new layer of interaction between players, adding social elements of trust and betrayal as a focus.

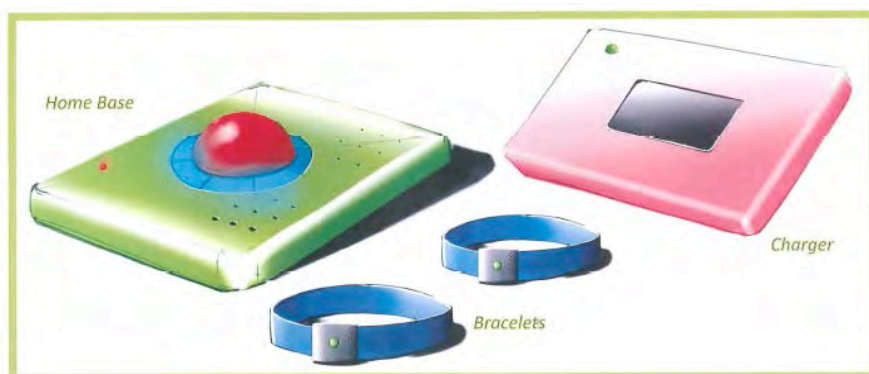


Figure 2: Sneak & Beep, a toy for (self-) betrayal during hide and seek  
by Rosalinde van Haneghem and Job Stehmann

The playground equipment 'houtje-touwte' (wood and rope, see figure 3) is another example of shifting the rules. The assignment for this student design project was to create a digital interactive outdoor playground object that allowed children to program the rules of play during play.

First of all, the student proved his rebellious nature by rejecting the digital interactive component of the assignment. The result is a structure of vertical wooden poles and changeable ropes. The arrangement of the ropes determines the play that can take place: it can be a maze, a cage, a symmetrically divided sports area like a volleyball field, etc. Changing the ropes is a physical way to facilitate or frustrate the play. The maze can become unsolvable, one volleyball team could be trapped in a small corner of the field... all uses and all affiliated rules become fluid. The design is explicitly supporting the creation of new rules in contrast to looking for the given ones. However, there can only be rebellion if there is knowledge of rules and structures to rebel against.



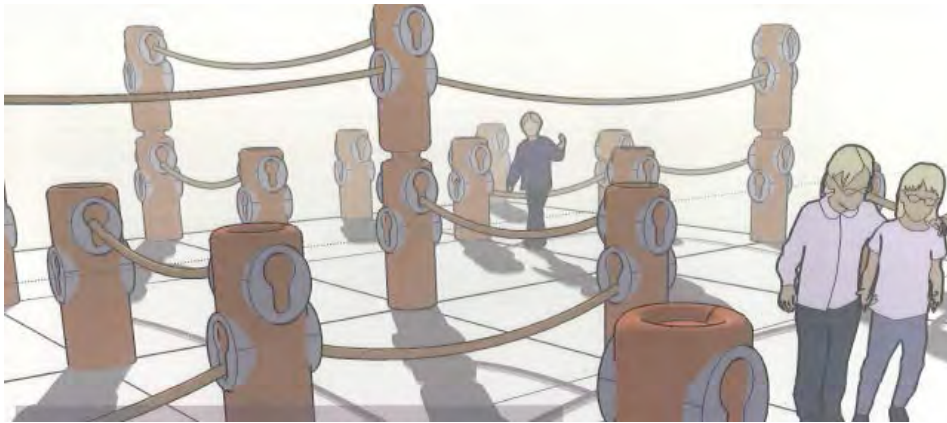


Figure 3: 'houtje-touw' playground structure by Jan-Geert Munneke

### 3.4 Facilitating rebellion by removing consequences

As most children and their parents know: the empty white wall is a tempting surface for artistic expression but the use of it is often not allowed. 'The scroll' (figure 4) is a wall-sized hanging pad with a few layers of paper of various kinds and colours. Children are welcome to draw on it, rip pieces out of it, make collages or peepshows from it and create a more or less permanent scenery for their room. Here the play object constitutes a play frame within which an otherwise forbidden act can be performed without consequences, i.e. the unthinkable becomes doable. Whether the act of writing on this wall is experienced as rebellious of course depends on the child's awareness of the rule to not draw on walls.

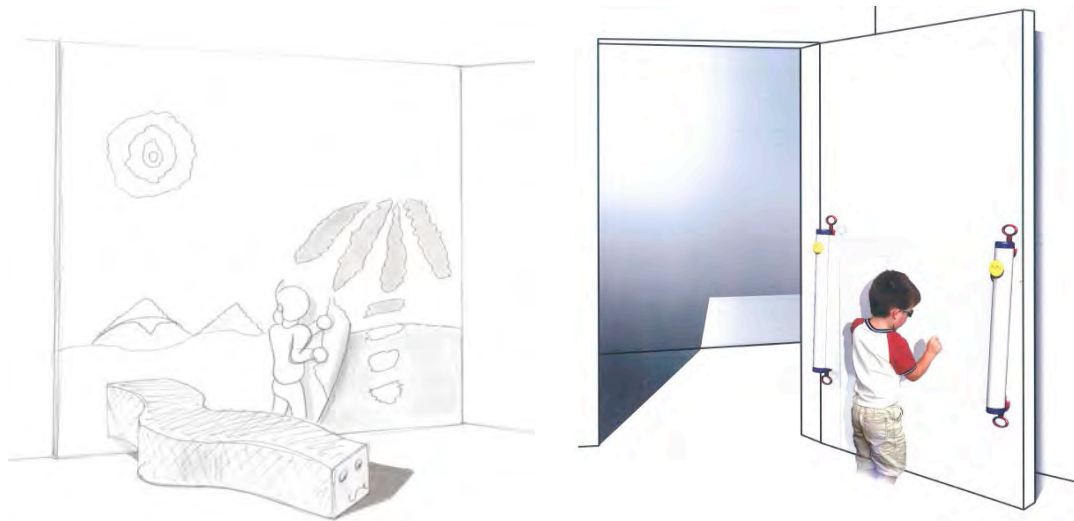


Figure 4: The Scroll, design idea and final concept, by Paco Busser and Olivier Deleye

### 3.5 Play as act of rebellion

The above examples address rebellion as subject or attitude within play. But play itself can be a form of rebellion as well, as in the case where children cling on to pretend-play roles to undermine authority. The child that makes the toothbrush into a magic wand and thus delays having to go to bed finds an adult counterpart in the playful 'sit-in' demonstrations of the 1960's and the recent Occupy movement. Here, negativism is combined with playfulness to signal peaceful, harmless intentions of the participants and to ward off a possible violent breakdown of the protest [16]. The play frame is again used as a shield against authority. The playfulness also helps to communicate the protest – and increase chances that rules eventually will be defied.

Play as an act of rebellion also occurs in the 'invisible playground' (figure 5), which was designed by students as a protest against the limited space reserved for children's outdoor play. All elements designed for this location either resemble or also function as regular street furniture, e.g. lamp posts. In a central location, a pedestal is topped with a giant dog turd statue, as a reminder of one of the problems children most often mention about their play spaces.

Children are expected and invited to play with these objects. By doing so, they become part of the protest. They rebel against city planning while conforming to the expectations on their play behaviour.



Figure 5: invisible playground, by Janneke Baur and Caroline Postma

### 3.6 Rebellion as random act of play

As Apter describes, the spontaneous urge for rebellious behaviour can arise in a person, especially after prolonged conformism. The person who wants to act on that may not have a reason or focus for rebellion, but rather must go out and find one. Here, rebellion for rebellion's sake takes place. The rebellion, whatever shape it takes, is performed for its own good. The rebellion is the play. With the fulfillment of the negativistic urge, the play will die out as well.

Examples of toys for this behaviour are hard to give since in this case non toy objects are often turned into toys. One very old toy of this kind which refers to a non toy object in this sense is the so called whoopee (or farting-) cushion. The rebellion lies in using it for unassuming others. Any toy that is intended as a release for this kind of rebellion, contradicts the act – by using the toy for rebellion, one conforms to its purpose. This is to some extent valid for all the toys mentioned here. The toy does in a way grant permission for the rebellious act.

## 4. Teaching to design for rebellious play

At the start of the paper, the observation was made that contemporary toy industry at large follows the clichés and stereotypes of traditional toy categories. If innovation is not to be expected from that side, maybe the generation of designers now being educated could be coerced into a rebellion enabling them to provide renewal?

The examples from student projects presented before, give rise to some questions. Originality in design is often achieved by negation of the commonly agreed. However, which commonly agreed aspect of design should one focus on and when is the result of the negation productive, i.e. leading to creative ideas and solutions? Does



rebellious against written or unwritten rules simply mean to do the opposite or is there a more subtle strategy required? Can a designer learn to play with the balance between negating and accepting the known?

For this subject, we draw from the experiences of teaching an international Master course on design for children's play to around 400 students over a period of one decade at Delft University of Technology. We have found that generally students tend to adhere to well-known categories of play and types of toys as presented by the industry, largely overlooking the presence of new technological and material opportunities and changing contexts of children's lives. Presented with the wide open product space that play offers, they tend to choose the rhetoric of Progress as their foundation and aim for pedagogic outcomes. Over the years, the course has come to emphasize other perspectives and provide students with exercises and tools to help broaden their view on play. Creating toys which support rebellion in play will need to be complemented with opportunities to break down conformist tendencies in students' design attitude and design work.

This thought in itself is supported by Reversal Theory. Apter [3] argues that negativism is at the heart of creativity. The "divine discontent" that seems to be at the heart of human nature prevents us from accepting old ways of doing things without regularly re-examining them. "And it would seem that those in the forefront of change – the scientists, artists, engineers, architects, and pioneers of all kinds – particularly need to spend periods in the negativistic state of mind if they are to overcome the inertia of old ideas and old ways of doing." (p115).

We present some of these tools and exercises for rebellion within design here. They were devised to make students aware of the vast idea space that design for play offers, the need to develop a personal perspective on play, the influence of their own play preferences on their thinking about play, and opportunities to overcome the preconceptions that those influences impose on them.

#### **4.1 Inversion of the definition of play**

In the first lecture on play, students are asked to contribute to the definition of what play is. Typically, this includes many forms of play, functions it may have, and words like fun, challenge, creative and imaginary. From their joint remarks, a combined definition is created that has the character of greatest common denominator of what play is.

Next, the opposites of all elements mentioned before are defined and discussed. Can an activity still be characterized as being play when it is serious, realistic, frustrating, routine, repetitious, uncooperative, enforced, momentary? The realization that most of these terms can indeed be linked to aspects of play helps enrich the view on the complexity and variety of play.

The same can be done with definitions of toys, e.g. the definition of a playground may include terms referring to a colourful, outdoor, social, public, fixed location. Yet an opposite representation can be inspiring: the playground may contain elements of a translucent, indoor, private, non-location based nature. This sparks thoughts of the playground as a shared moment in time, the unsynchronized yet connected use of it, the connection to the before and after-time of its use, the physical versus ethereal signs of attendance.

#### **4.2 Examining perspectives on play**

Students are asked, quite early in the course, to write a short statement on the value of the play they intend to facilitate from the consecutive perspective of the child, its primary caregiver, and themselves as designer. As obvious as this may seem, it turns out to be an eye-opener for the students. It is very hard to formulate any in-depth statement from the perspective of a child. Statements that students put in the mouth of the primary caregiver

typically deal with safety, pedagogic intent (the Progress rhetoric again) or practicalities like cost-effectiveness and keeping the child quietly engaged so the adults can attend to their own business.

The designers' perspective on the value of play highlights the design challenge to the students: contrary to regular design projects, where a specific design brief or consumer need is to be addressed, here is no clear problem to be solved. If they want to come up with anything beyond the readily available or thinkable, they must challenge themselves to explore the vast open design space of play beyond the familiar and develop their own perspective, aims and quality criteria.

#### **4.3 Anecdotic references and empathy**

Students are asked to think of their childhood play, and formulate an anecdote about an aspect of it, e.g. an anecdote about an instance of rebelliousness related to play that they remember. The class discusses these anecdotes, focusing on what caused the rebellion, why it was experienced as being rebellious, and what the motivating elements in it were. Together, they renew their own child-perspective on rebelliousness and the emotional and motivational aspects of it. As a consequence, students develop a firmer and more empathic appreciation of the rebellious side of behaviour.

#### **4.4 Bipolar sets of ideas**

Even when students have developed an appreciation of the negativistic side of play, they find themselves often restrained in developing ideas for it. Too strict self-censorship prevents students from giving ideas with a rebellious potential a serious chance to flourish. This self-censorship is reduced through an exercise in bipolar idea generation. For each 'responsible' idea, students have to come up with the inverse: an idea for play that focuses on the opposite motivations or has a reverse outcome. Some of the ideas that come out of this exercise spark the students' imagination. It helps them to recognize the potential of crossing the boundaries they have often implicitly respected. In other cases, it helps to imagine the bipolar ideas as two extremes of a scale on which students can explore what in their perspective is the best balance between rebellious and conformist tendencies. Ultimately, students realize that a design could facilitate children's own experience of this balance, including the reversals between rebellious and conformist behaviour that are part of it.

#### **4.5 Extreme characters at play**

Some students have a somewhat distorted view on children's preferences and play behaviour as always being soft, friendly, cooperative; they 'think cute'. This view can block their ideation. In that case, it may help to replace children with a variety of extreme characters [7], (fictional or not) and envisage what they would do in a comparable play situation – and how a toy could be designed to suit their preferences. It is often easier to reduce the original but extreme outcomes to acceptable proportions than the other way, to find some originality in the familiar.

### **5. Discussion**

This paper presents the beginning of an argument for the need of rebelliousness for wellbeing in children, both in short-term and long-term perspective. Different ways in which design could foster non-conformism through play have been shown. A few examples of student designs and design techniques that are related to non-conformism are given. However, in order to provide a framework for rebellious design, a more in-depth analysis

is needed of the process of social pressure and its signals within play. As rebellion is defined as wanting or feeling compelled to do something contrary to that required by some external agency, it is of use for the conception of rebellious toys to explore the nature of that 'external agency'; there is the source of social pressure and the key to opposing it. In some cases it is easily recognized, as in the explicit printed rules of a board game, the rules of sports that are agreed upon by all the players, the warning sign that says a skateboard is for single-person use. Other forms are less explicit, yet deliberately created: paved pathways in-between perfectly mowed lawns, prickly bushes around a flowerbed, the gender of the players depicted in toy advertising. Moral messages are often present in stories (from the ancient fables and fairytales up to contemporary tv-series and video games). A clearer and more explicit demonstration of the messages, norms and rules would help designers to question and challenge them in their designs.

Finally, for designers to truly appreciate the value of rebelliousness, knowledge alone may not be enough. An empathic connection with negativism and an insight in the implicit conformism the designer is personally subject to, are welcome eye-openers that will help him or her stretch the boundaries of the idea space and bring some innovation to the area of design for play.

## 6. Conclusion

In short term rebellious behaviour offers gratification for the individual in a negativistic state. In the longer term, it offers a chance to balance social pressures with inner wants. It is an act of rejection of the demands of a community but often places the person within another community. It fulfills a function of fostering self-regulation and autonomy in decision making and as such is part of a healthy development. All these elements contribute to personal wellbeing and the ability to take responsibility for it. Therefore rebellion can be seen as much as a quality as its counterpart, conformism.

Play as a safe haven for experimenting with behaviour offers the opportunity to explore rebellion and its consequences. Rebellious play varies from merely empathizing with rebellious fictional characters or defying the rules within play, to using play as a form of protest.

For a designer to be able to design for rebelliousness in play, it is necessary to understand the value of rebellion and also to be aware of the designer's own implicit morality, so as to be able to question and go beyond it.

Some simple techniques were presented that can help designers in this process. They provide understanding of and empathy with the developmental needs of children to freely explore also behaviours that go against 'good taste' or commonly appreciated behaviour. Rebelliousness as a topic helps designers to open up the design space to create more diverse and less stereotypical toys; toys that would contribute to children's wellbeing.

## References

- [1] Apter, M.J. and Smith, K.C.P. (1976) *Negativism in adolescence*, The Counsellor, No 23/24, pp25-30.
- [2] Apter, M.J. (1982) *The experience of motivation: the theory of psychological reversals*, Academic Press, London & New York.
- [3] Apter, M.J. (2007) *Reversal Theory: The Dynamics of Motivation, Emotion and Personality*, 2nd. Edition, Oneworld Publications, Oxford.

- [4] Bateson, G. (1972) *A theory of play and fantasy. Steps To an Ecology of Mind*, Chandler Publishing Company. (pp. 177-193). Cited in: Gordon, G. *What is play? In search of a Universal definition*, In Kushner, D. (ed.) (2009) *Play & Culture Studies Vol8: From children to red hatters: diverse images and issues of play*, Ch.1, p1-13, University Press of America, Lanham.
- [5] Borden, I. (2003) *Skateboarding, Space and the City: Architecture and the Body*. Berg, Oxford.
- [6] Deci, E.L., Ryan, R.M. (2000). *The "What" and "Why" of Goal Pursuits: Human Needs and the Self-Determination of Behavior*. *Psychological inquiry* 11 (4), pp227-268.
- [7] Djajadiningrat, J.P., Gaver, W.W. and Frens, J.W. (2000) *Interaction relabelling and extreme characters: methods for exploring aesthetic interactions*, In *Proceedings of DIS'00*, New York: ACM, pp.66–72.
- [8] Gielen, M.A., Leeuwen, L. van, and Westwood, D. (2011) *Designing for the real child. Toy designers and pyschologists in dialogue on reversal theory*, In *Proceedings of IASDR2011*, Delft.
- [9] Huizinga, J. (1955) *Homo Ludens. A study of the play element in culture*, Beacon Press, Boston.
- [10] Johnson, J.E., Welteroth, S.J. and Corl, S.M., (2001) *Attitudes of parents and teachers about play aggression in young children*, In Reifel, R.S., *Play & Culture Studies Vol3: Theory in context and out*, Ablex Publishing, Westport.
- [11] Leeuwen, L. van, Gielen, M.A. and Westwood, D. (2012) *Controlling experience or experiencing control? Reversal Theory& design for play*, In *Proceedings of Design and Emotion Conference 2012*, Central Saint Martins College of Art & Design, London.
- [12] Kawash, S. (2011) *Gangsters, Pranksters, and the invention of Trick-or-Treating, 1930-1960*, *American Journal of Play*, vol4, no. 2, pp150-175.
- [13] McDermott, M.R. (1998) *Measuring rebelliousness: the development of the negativism dominance scale*, In Apter, M.J., Kerr, J.H. and Cowles, M.P. (eds) *Progress in Reversal Theory*, Chapter 23, p297-325, Elsevier Science Publishers, Amsterdam.
- [14] Rawlinson, C.J. and Guaralda, M. (2012) *Chaos and creativity of play: designing emotional engagement in public spaces*, In *Proceedings of Design and Emotion Conference 2012*, Central Saint Martins College of Art & Design, London.
- [15] Ryan, R.M., Huta, V. and Deci, E.L. (2008) *Living well: a self-determination theory perspective on eudaimonia*, *Journal of happiness studies* 9, pp139-170.
- [16] Shepard, B (2011) *Play, Creativity, and Social Movements: If I Can't Dance, It's Not My Revolution*, New York, Routledge.
- [17] Spielwarenmesse Nürnberg: *Innovation Guide* 2013.
- [18] Sutton-Smith, B. (1997) *The ambiguity of play*, Harvard University Press, Cambridge.
- [19] Veenhoven, R. (2011) *Greater happiness for a greater number: is that possible? If so, how?* In Sheldon, K.M., Kashadan, T. B. and Steger, M.F. *Designing positive psychology*. Oxford university press, Oxford, pp396-409.