Designing <u>for</u> and <u>with</u> Ambiguity

Actualising Democratic Processes in Participatory Design Practices with Children

Annelies Vaneycken

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This image prelude holds eight photographs. These photographs aim to give an impression of the mood of the *Public Play* workshops, in as far as this is possible.

P1-01
Creating recipes with an old typewriter,
Recipes for unControl
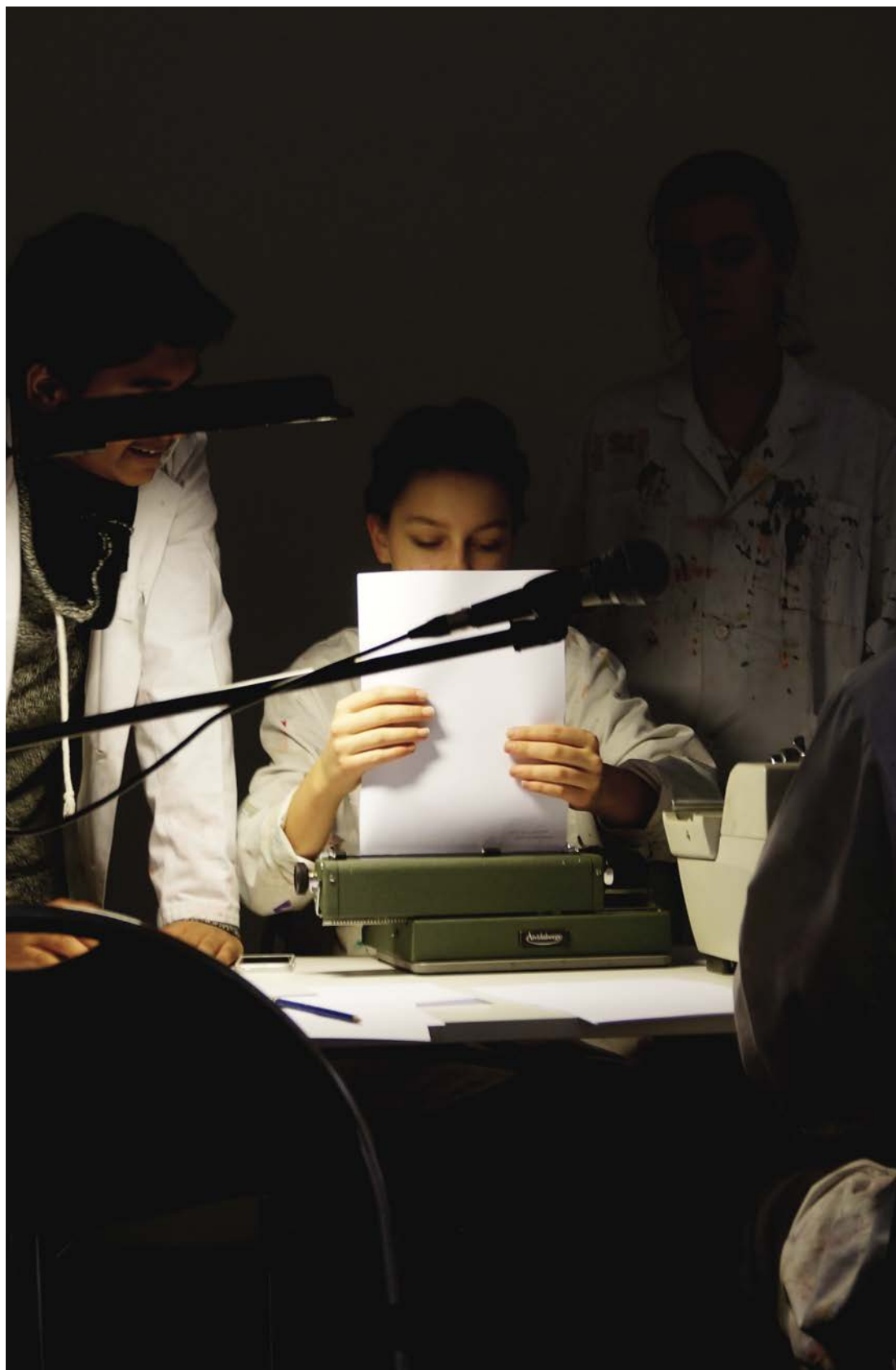
P1-02
Exploring Parc de Forest in Brussels,
Playful Rules

P1-03
Exploring Aldi Park in Ghent,
Dialogue Shapers

P1-04
Free play with a rope,
Dialogue Shapers, #6 The Car Wrestlers

P1-05
Lost and found as *loose parts material*,
Dialogue Shapers

P1-06
Expressing experiences of exclusion
in public space through printmaking,
Recipes for unControl

P1-07
Free play with textile banners,
Playful Rules, Fieldwork Interlude

P1-08
Clay as loose parts material,
Dialogue Shapers

In the last thirty years, there has been an increased interest in supporting children's participation in society, where the results of these practices may or may not have contributed to more democratic outcomes. In this thesis, I focus on the democratic character and potential of the *processes* driving such practices, and their outcomes, which, to date, have mostly been overlooked. My inquiry is situated within the context of participatory design with children and explores how adult-initiated practices that work on children's participation in society, can, in addition to producing a democratic outcome only, also be actualised as a democratic process. Here, a *democratic process* is understood as a process based on child–adult interactions that respect fundamental democratic values such as freedom, equality, and justice.

My design practice, in this case, the *Public Play* project, formed the core of my fieldwork and empirical material. *Public Play* was a series of five participatory design workshops where groups of children and I worked together on children's participation in public space in Belgium and Sweden. A new research approach: *research through design interventions* was developed and used for the exploring of "openness" (Eco, 1989[1962]) as well as the study of its effects by analysing some key workshop situations through a theoretical framework drawn from Gaver et al. (2003).

The thesis foregrounds how ambiguity—the quality of being open to the simultaneous coexistence of several meanings—can be a resource for the actualising of a pluralistic democratic process. Exploring ambiguity revealed both the adult designer and the child participants being enabled to express their meanings when defining the content, roles, and agenda of the process, and that the actualising of a democratic process also requires certain ways of negotiating and fulfilling responsibilities. The thesis also highlights the *particip-actor* role the children can play, as well as new roles for the facilitator when designing *for* and *with* ambiguity. Through my inquiry, an *ambiguity approach* comes into being, which helps designers work with ambiguity in a more controlled way, as well as providing them with a strategic framework informed by learning-by-doing, learning-over-time, and learning-from-peers.

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Introduction

With the title "designing *for* and *with* ambiguity", I highlight the two main ideas I want to move forward with my thesis. Firstly, "designing *for* ambiguity" points to the value of ambiguity for actualising a democratic process in practices in which designers and children work together in participatory ways. In this thesis, I will argue that ambiguity can promote a democratic process in which both designers and children are free to express their ideas regarding the actualisation of the process and are equally involved in deciding how the process content, roles, and agendas are responsibly realised. Secondly, "designing *with* ambiguity" points to the direct contribution of this thesis: the *ambiguity approach* that aims to help designers to work strategically with the complexity and difficulties of ambiguity when aiming to actualise a democratic process. Whilst "designing *for* ambiguity" can be understood as a theoretical explanation, "designing *with* ambiguity" offers concrete support for making it happen.

1.1
Personal Positioning, Motivation, and Research Framings

This thesis builds on a practice-based research approach. I have used my own design practice as a means for producing new knowledge whilst at the same time further developing this design practice. Although I have set up a specific project—the *Public Play* project—for this research endeavour, this project has been influenced by my prior design education and practice.

I was trained as a visual communication designer in a rather traditional way (LUCA School of Arts in Brussels, 1994–1998). My second master's degree at the Sandberg Institute in Amsterdam (1999–2001) challenged me to reflect critically on the role of design and designers in society. Ever since, I have redirected my design practice towards being one that questions, challenges, or reconfigures socio-political issues in society. My design practice has affinities with "design for democracy" (DiSalvo, 2010) and "relational design" (Blauvelt, 2008a) but it is difficult to situate it within a conventional design category. Furthermore, my design practice actively involves citizens, which foregrounds a "participatory design" approach (Simonsen & Robertson, 2012). Whereas "design for democracy" (DiSalvo, 2010) can be read as being my design ambition, "relational design" (Blauvelt, 2008a) is the design means for

releasing this ambition, and "participatory design" (Simonsen & Robertson, 2012) the concrete approach to it.

Whereas Ken Garland (1964) inspired me to use my design practice beyond commercial goals and to work on improving people's general well-being, it was mostly Paulo Freire's ideas that encouraged me to use my design practice as a means to fight socio-political inequality (Freire, 2000[1968]). In my design practice, I work on the development of *structures* that help a certain social group to develop critical awareness about their socio-political situation in society and to activate change-making therein (ibid.). These changes foreground values of freedom, equality, and justice and contribute to the development of democracy. My design practice works on "expanding citizen possibilities for democratic action and critique" (DiSalvo, 2010, p. 1). More specifically, my design for democracy practice aims to make democracy more inclusive by involving those social groups that are currently still excluded from democracy. Thus my design practice and the structures it develops enable the development of alternative spaces in which the "unrecognised citizen"[1] (Sassen, 2005) can practise "politics"[2] (ibid.). These political spaces enable unrecognised citizens to meet other unrecognised citizens as a group and develop awareness of their own shared situation, thus bringing change to it (Freire, 2000[1968]). Furthermore, when designing for a pluralistic democracy, the differences and *conflicts* emerging from assembling a diversity of voices are not avoided or ignored but understood as constructive means in the development of a pluralistic democracy (Mouffe, 2000).

[1]

For instance, certain senior groups, certain refugee groups, and certain children. I acknowledge that these social groups may not be excluded from participating in democracy in general, but there may be occasions when they are. Similarly, I do not claim that seniors, refugees, children, etc. are excluded in the same way. Some may be more privileged than others.

[2]

Although I am aware of Chantal Mouffe's division between "politics" and the "political" (2016)—where "politics" refers to the formal structures (practices, discourses, and institutions) which seek to organise human coexistence, and the "political" refers to the many informal ways in which human coexistence is practised—I understand that Saskia Sassen uses the term "spaces for politics" (2005) for referring to what Mouffe defines as the "political" (2016).

Furthermore, the designer's role in supporting the development of those structures that enable certain social groups to develop such awareness and change is one that orchestrates the reconfiguration of human relationships (Blauvelt, 2008a). Here I refer to the affinities with relational design[3] described by curator, designer, educator, and writer Andrew Blauvelt as an emerging design field that is mainly concerned with designing human behaviour and reconfiguring relations between human beings (ibid.). Relational design—considered as the third wave of design (starting from the mid-1990s)—has emerged from the growing complexity of our current world and aims to help people to deal with this complexity by facilitating social interactions (ibid.). Thus relational design has a performative dimension[4] and explores "more open-ended processes that value the experiential and the participatory and often blur the distinctions between production and consumption" (Blauvelt, 2008b., para 10). The latter understands design *users* as taking a more active role in design production.

Furthermore, there is an artistic and transdisciplinary drive in my design practice that enables me to experiment and explore out of the box and help to develop new, sometimes radical views and approaches that challenge, transgress, and further develop traditional design views and approaches.

I will now briefly describe some of my former projects to illustrate the nature of my practice. As these design projects will illustrate, they did not result in fixed physical outcomes but aimed to facilitate the recon-

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Although "relational design" and "relational art" both work with human relations and their social context whilst intervening in the *real* world, I do not connect my practice to the way that art critic and curator Nicolas Bourriaud understands "relational art" or "relational aesthetics" (1998), as interactive conceptual art practices that replicate existing social environments for people (formerly understood as spectators) to participate in.

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Blauvelt defines relational design as being "preoccupied with design's effects, extending beyond the form of the design object and its attendant meanings and cultural symbolism. It is concerned with performance or use, not as the natural result of some intended functionality but rather in the realm of behaviour and uncontrollable consequences. It embraces constraints and seeks systematic methodologies as ways of countering the excessive subjectivity of most design decision-making." (Blauvelt, 2008b, para. 10)

figuration of human social interactions (Blauvelt, 2008a). This means that my design practice is process-orientated where intangible results are gradually produced over long time spans.

In *Reporter Sem Beiras*[5] (2008–2012), translated as 'reporter without boundaries', I worked together with residents of different slums in Rio de Janeiro and Recife on creating and distributing alternative narratives that aimed at widening the negative favela image created and distributed by the local and national media. The project resulted in two series of wall journals distributed in 2011 and 2012 in various public spaces in Rio de Janeiro. The wall journals presenting these alternative narratives created a plurality of temporary political spaces in which the negative favela image was discussed by a diversity of citizens.

In *The Regenerators*[6] project (2012), artist Irene Pittatore and I created a public sphere-space in the Porta Palazzo neighbourhood in Turin. We invited various interest groups to reflect critically on the consequences of their neighbourhood being in a process of gentrification, and the critical role of the artist and artist-in-residence projects in this process. The process led towards a public roundtable discussion—a temporary political space in which various interest groups (i.e. residents, visitors, artists, art critics, property developers, and sociologists) assembled and discussed this complex matter of gentrification.

In *Kunnen Planten Kranten Schrijven?*[7] (2003), translated as 'can plants write newspapers?', I assembled a group of local child residents of the Sledderloo neighbourhood in Genk to develop awareness and critical reflection upon their situation of living in a neighbourhood that is subject to atmospheric heavy metals pollution. The process resulted in a publication in which the children communicated their thoughts, concerns, aspirations, hopes, and radical imagination about their situation. The publication was used as a medium to share and discuss their voices with their parents and other citizens of the neighbourhood and Genk at large.

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More information about *Reporter Sem Beiras* via www.reporter-sem-beiras.info

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More information about *The Regenerators* via www.anneliesvaneycken.be/the_regenerators/index.html

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More information about *Kunnen Planten Kranten Schrijven?* via www.annelies vaneycken.be/kunnen_planten_kranten_schrijven/index.html

Before I started my doctoral studies, I had worked with adults and children in participatory ways in my design projects. These projects awakened recurring questions about ethics in regard to participation, especially when involving children. These ethical concerns became the main reason for starting my research project and doctoral studies. My research project was formalised through my appointment as a PhD student at HDK — Academy of Design and Crafts, at the University of Gothenburg in Sweden (2014–2019) and my involvement in the TRADERS research project (2014–2017).

As a PhD student at HDK — Academy of Design and Crafts, I was linked to the master's programme Child Culture Design. This design-based master's programme assembles a mixture of interdisciplinary students who probe innovative ways of designing *for* and *with* children. Our collaboration was one of mutual exchange; whereas I was able to learn from their projects and approaches, my research project offered them an alternative, more democratic approach to designing *with* children. Furthermore, by being part of a Swedish institution, my research became exposed to some important values that drive contemporary Swedish culture: democracy, equality, and human rights. Sweden's engagement with the United Nations Convention on the Rights of the Child in 1990 has put children's valuation, care, and support on its political agenda. A more recent emancipatory wave has been directed towards children. At the moment of finishing this thesis, Sweden is working on the challenging endeavour of turning the UNCROC guidelines into law.

My doctoral studies have partly been financed through TRADERS[8], a European-funded research project within the FP7 Marie Sklodowska-Curie Actions Initial Training Network. TRADERS is an abbreviation for "Training Art and Design Researchers in Participation for Public Space" (Hamers et al., 2017, p.16). The project set out to research the ways in which art and design researchers can *trade* or exchange with multiple participants and disciplines in public space projects (Hamers et al., 2017). For three years, the project engaged five early-stage art and design researchers (including myself) and one sociological researcher, for each of them to test and develop a specific approach on which practitioners and researchers in art and design and related fields can rely when working in public space projects and public issues in a participatory way. These six

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[8] More information about TRADERS via http://tr-aders.eu

approaches were intervention, performative mapping, play, data mining, modelling in dialogue, and curating. Within the TRADERS project, I was responsible for exploring and developing *play* as an approach for working on public space issues in participation with children.

1.2
Research Background, Focus, and Questions

My research project was developed at a time when growing efforts for a more inclusive democracy were being made. On the other hand, the current crisis of democracy challenges our belief in democracy, at least in the way it is being practised. Yes, democracy currently finds itself in a crisis. Citizens feel that they are not well represented by those in charge. Top-down citizen participation is often no more than a form of tokenism in which a status quo is reproduced. The word *democracy* seems to be generously used and misused for naming practices that do not correspond to the democratic values of freedom, equality, and justice. Populism is rising and neoliberal values prioritise economic profit above basic democratic values. It is against this backdrop of loss of confidence in democracy, uncertainty, and frustration that we need to situate citizen participation.

Many scholars point to the difficulty of working with forms of direct democracy for organising our current complex society (i.e. Parvin, 2017 & 2018) that is characterised by processes of individualisation and globalisation (Jans, 2004). Nevertheless, we witness a growing trend of more direct forms of citizen participation. We cannot compare this new wave of citizen involvement in society with the activist bottom-up organised citizen movements of the 1970s (starting in 1968). When looking at the way that citizen participation in society is currently being practised, we can distinguish two main forms. At one end of the spectrum, are top-down or institutionalised forms of citizen participation which have been critiqued as a way to soothe the masses and give them the *feeling* of being involved whilst their participation is, in many cases, no more than an affirmation of what has been already decided by those at the top. At the other end of the spectrum, we find citizen collectives who spend time and effort on developing societal change from the bottom-up. Although the latter do not have the same decision-making power as those at the top, their radical ideas and practices that question the reproduction of conventional ideas and practices form

an important counterbalance. They act as alternative models of participation that show how things can be done otherwise and then initiate these processes. These alternative bottom-up practices are also important because they are often the only entrance for the political participation of people who are currently still excluded from formal structures for participation in democracy (e.g. voting, referendums but also top-down organised participatory events) (Sassen, 2005). Some scholars have pointed out the importance of art practices (Mouffe, 2007 & 2013; Gielen, 2011 & 2017) and design practices (Björgvinsson et al., 2010; DiSalvo, 2012) as enablers for involving a diversity of voices in societal change and for including those voices that are not (yet) included. It is within such a context that I situate the *Public Play* project[9].

My research project has a particular interest in improving children's involvement in democracy by advancing their participation in society. Although children have been excluded from participating in societal developments for a very long time in history, some initiatives at the end of the twentieth century have introduced change. For instance, the recognition of the United Nations Convention for Children's Rights by a large number of nations since 1989 evoked different discussions. A more recent movement striving to make democracy more inclusive focuses on children's participation. Furthermore, the postmodern view on childhood opened up new perspectives about children's position in society. This view understands children as "becomings" and "beings" just like adults (James et al., 1998; Qvortrup, 1991; Uprichard, 2008). These different initiatives have led to the emergence of adult-initiated and child-initiated practices working on children's participation in society in a variety of fields of which participatory design with children is one. These practices are important because they are currently the only way in which children can have a say in the development of society and take part in democracy. This is especially the case since children—i.e., people below the age of eighteen—are excluded from formal ways of participating in society like voting, referendums, etc. simply because of their age.

Although many people understand the importance of children's participation in society, there are some opponents who do not consider children as being capable and/or responsible enough to shoulder such a role (Archard, 1993), and others who want to preserve a carefree child-

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More information about the *Public Play* project via www.officeforpublicplay.org

hood (Howe & Covell, 2005). Furthermore, working on children's participation brings a number of difficulties. The complexity and difficulties encountered by current practices that work on children's participation in society point to areas for improvement. The children's rights scholar Roger Hart has unpacked the various degrees to which children participate (1992). Building further on Arnstein's 1969 "Ladder of Citizen Participation", Hart developed the "Ladder of Young People's Participation" (Hart, 1992) to help practitioners develop awareness about the various degrees to which children are involved in decision-making in both adult-initiated and child-initiated projects aiming for societal change. The education scholar Greg Mannion has pointed to the need to reframe children's participation in a spatial and relational way (2007). This means that children's participatory practices are influenced by the specific *context(s)* in which they take place (spatial) and the specific *child–adult relationship(s)* in which they are developed (relational). Thus the need exists to address children's dependence on adults in practices working on children's participation, especially those involving younger children. The education scholar Marc Jans has highlighted the difficulty of the adult role in children's participation when it comes to finding a good balance between children's autonomy and children's protection (2004). The influence of child–adult relationships in practices working on children's participation forms the context of my research focus. What we can learn from Hart (1992), Mannion (2007), and Jans (2004) is that we need to develop a deeper understanding of the micro-politics of the child–adult relationships that frame practices working on children's participation in society, and the undemocratic normative power relationships they reproduce. The latter defines the main ambition of my research.

My research project focuses on challenges related to adults' involvement in practices working on children's participation. Whereas, on one hand, adults are involved in order to support children's participation and protect them (Jans, 2004), on the other hand, they also—directly and indirectly—influence children's participation in other ways. In addition, Mannion has already made it clear that it is not only about adults' behaviour—their *actions*—but more so the way that adults and children *interact* with each other in the process that shapes those practices (2007). In other words, children's participation depends on their underlying child–adult relationships (ibid.). To date, less research has zoomed onto the micro-politics of the above-mentioned child–adult relationships

at stake in the processes that drive such practices. Certain questions have been ignored but need to be investigated critically if we want to develop children's participation in society further and to advance the democratic project at large. Questions like: Which child–adult power-relationships are at stake when they—children and adults—collaborate in such processes? In what way are these child–adult power relationships based on postmodern views of childhood—the child as "subject" with an agency (James et al., 1998; Qvortrup, 1991; Uprichard, 2008)—and how do they reproduce old-fashioned views about children? How do these child–adult power relationships produce interactions and processes that articulate current democratic values and advance the democratic project?

My research explored these questions and more specifically focused on the defect that many practices working on children's participation in society unilaterally focus on developing a democratic *outcome* (children's participation in a certain context/topic/situation, i.e. public space issues). However, they simultaneously ignore and neglect the democratic potential of the *processes* of which they are making use. Thus they fall short of involving children in democracy in a more holistic way. In other words, most adult-initiated practices working with children's participation in society ignore the child–adult relationships and interactions making up the process of this participation, on the basis of democratic values: freedom, justice, and equality. Starting from this observation, in my research project, I took on the challenge of exploring how child–adult interactions can be actualised democratically. By a *democratic process*, I mean a process based on just actions and interactions (justice) in which a diversity of both children's and adults' initiatives are seriously considered in a shared decision-making process, whilst respecting their individual values and backgrounds (freedom). By shared decision-making, I mean a decision-making process in which all the actors involved participate on equal terms (equality).

Paulo Freire worked on a similar double participation. On a macro-political level, Freire worked on liberating oppressed citizens from the dominating political structures that ruled their everyday life. This liberation was achieved by the active engagement of the oppressed citizens. Freire's specific approach, called "cultural circles" (Freire, 2013[1965]), enabled the oppressed citizens to become emancipated "subjects" (Freire, 2000[1968]) who were critically aware and who actively participated in society. At the same time, Freire's approach for producing such emancipated "subjects" (ibid.) also worked to liberate the *learner*

from the dominant educational structures present in most conventional educational practices. On such a micro-political level, the educator aimed to develop an emancipated learner who actively participates in her/his learning process leading to her/his active participation in society.

Back in the 1960s, Paulo Freire had well understood that working on the development of a political space in which oppressed citizens can work on their participation in society has to be supported by an approach that mirrors this ambition, an approach that supersedes unequal power relationships and produces more democratic interactions and processes. Freire, drawing on his background as an adult-educator, developed such an approach, including a critique of the oppressive educational system used by many traditional education institutions. This conventional educational system consists of teachers taking an exclusive position in decision-making about the content, roles, and agendas of educational programmes. It is a system that has been reproduced over time and has thereby become part of the normative cultural practice of many countries. In contrast to this oppressive educational system, Freire developed an alternative educational approach in which the educator invites the learners to take an active role in their learning process. As such, Freire's alternative educational approach created *openings* in educational structures, thus encouraging learners' participation.

I developed the *Public Play* project to explore how designers can produce a democratic process—not only a democratic outcome—through their practices while working with children's participation. By inquiring into this issue *through* my own design practice (Frayling, 1993) and *intervening* in this design practice (Halse & Boffi, 2016), I could simultaneously develop new insights into this matter and develop a hands-on approach.

Public Play is a design project situated in "relational design" (Blauvelt, 2008a) and "design for democracy" (DiSalvo, 2010), building upon the Scandinavian participatory design approach (Simonsen & Robertson, 2012). By *participatory design*, I mean a particular design approach in which a diversity of stakeholders (i.e. various users and makers of public space: children, families and seniors, policymakers, sociologists, social workers, urban planners, etc.) are involved in the reorganisation or development of a certain common issue/question/situation (e.g. the role of public space in slow mobility development) with a particular focus on supporting the involvement of those stakeholders who typically have less or no power in decision-making (in this case, children).

The *Public Play* project consisted of a series of adult-initiated workshops focusing on children's participation in public space issues. The aim of the project was two-fold and interwoven. From a design perspective, *Public Play* aimed to work on children's participation in society by supporting them to develop a space for their political practice (Sassen, 2005). This support consisted of the designer designing and promoting a *structure* that helped the children to become informed subjects who were critically aware of their personal public space situation and of becoming active change-makers therein (Freire, 2000[1968]; UNCROC, 1989). From a research perspective, *Public Play* aimed to democratise the participatory design approach even further by developing an approach that produces democratic child–adult interactions in the process, hence enabling the actualisation of a democratic process.

This ambition made me look at my participatory design approach from a different angle. Whilst before I was used as a designer to focusing *only* on how my participatory design approach could create a democratic outcome (e.g. children's participation in slow mobility in their neighbourhood), I now started to focus on seeing and exploring how I as a designer can *also* support the children to develop their active participation in the process driving the project and its outcome. In other words, I wanted to investigate if and how designers can create a "support structure"[10] (Condorelli et al., 2009) to facilitate the production of "political spaces" (Sassen, 2005) in which democratic child–adult interactions can result in a democratic process based on their mutual freedom, equality, and justice.

Very early in my research process, my practice confirmed Mannion's relational framing (2007). I learned that the structures I designed for running the participatory design workshops did not only *support* the process actualisation but more so, the particular design of this structure *directed* the process. This insight made me look critically at how participatory design can act as a *directing structure* in addition to or instead of a "support structure" (Condorelli et al., 2009). I came to the ascertainment that it is mostly the adult designer alone who decides on how to design and promote those structures that *guide* the process. I realised

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Here I adopt the term *support structures* to the specific context of my research. The term was introduced by the French artist Céline Condorelli (2009) for referring to the invisible structures that often shape the way in which we navigate the world. She has used the term as a lens or the point of departure for thinking about *support* and how we can *practise support*.

that it is foremost the adult designer alone who decides *how* the process is to be organised, without involving the children in this decision-making. Furthermore, I realised that my ascertainment was applicable to the way in which most participatory design practices with children are organised. Thus I can say that many participatory design practices and approaches working with children ignore children's capability and responsibility to take an active role in organising and actualising processes in which they are directly involved. This means that many participatory design practices and approaches limit children's role to a passive one in which they mainly only contribute by *filling in* the designer's (pre)defined structure. Put differently, many participatory design approaches invite children to participate in the making of the *what* (the outcome) whilst ignoring and neglecting their participation in the making of the *how* (the process).

I will now take a leap to my fieldwork as a way of showing how my design practice, the *Public Play* project, contributed to the development of my research focus, hypothesis, and questions. In addition, the short *fieldwork interlude* provides good insights into the role of my design practice in this research as well as a feeling for the nature of the fieldwork I conducted. After the fieldwork interlude, I will explain how this early fieldwork supplemented with theoretical inspirations helped me to construct my specific research questions.

Fieldwork Interlude: Children's
Active Participation in the Process
of the Playful Rules Workshop

I organised the *Playful Rules* workshop in Brussels in August 2014. It was a continuation of the first *Public Play* workshop I had organised less than two months earlier[11]. For this workshop, I had assembled a group of ten children who lived close to the *Parc de Forest* in Brussels. The children were aged between six and eleven. They all came from middle-class families but had different origins and spoke different languages. Three

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The *Public Borders* workshop was the first *Public Play* workshop. This workshop mostly served to develop sensitivity to how to organise participatory design workshops with children in and about public space issues (method). It also aimed to engage the children as identifiers of public space issues; issues *they* considered as important and valuable to work on.

children were bilingual French-Arabic and three other children spoke Flemish; two children were bilingual Flemish-French; one child spoke Dutch and one child was bilingual Flemish-German. With the workshop, I was interested in exploring how the children experienced social interactions in the park. I aimed to help them develop a critical awareness about their situation in relation to socialisation in public space in general and in the Parc de Forest park in particular, and subsequently help them to create real change in their situation by initiating and promoting alternative social interactions in the park. The workshop ended with a participatory walk in which the children invited an external audience 1) to develop a better understanding about the children's situation through re-enactment exercises, empathising exercises, and sharing their personal experiences, 2) to develop understanding about the children's different opinions/worries/questions/etc. about public space socialisation, and 3) to discuss in groups the children's proposals for reconfiguring socialisation in the park as a public space. This participatory walk was part of *L'Incroyable Téléphérique*, an annual art event on and in Parc de Forest, organised by a team of engaged local art curators. The aim of this art event was to help the audience (re)discover the park whilst interacting with the artworks and art walks developed by a dozen artists working in a variety of fields. I was invited as one of those artists.

At the very start of the *Playful Rules* workshop, I asked the children to tell me something about their relationship to the park. I asked them how frequently they visited the park and what places they favoured. What followed was not what I had had in mind. What I had planned for as a five-minute warm-up conversation was enthusiastically answered by the children with a series of explorative physical activities. The children proposed to *show* me their favourite places by visiting those places. They took me on several walks through the park and showed me a variety of places. They also initiated discussions and activities in these locations. Although those activities were not planned in my initial workshop programme—the *workshop structure*[12]—I acknowledged their value for the project and, therefore, I agreed to proceed and join their self-initiated activities. Nevertheless, the child participants' initiatives gave me mixed feelings. I felt joyfully excited about these rich explorations but I also became increasingly stressed because they resulted in a very reduced

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Check the thesis glossary, page 52 .

time span for the other assignments I had planned for that day. Thus I had to make changes to the initial workshop structure by reducing and replacing some of the activities I had planned for in favour of those initiated by the children.

Later that day, the participating children *messed up* my planned workshop programme once more. It happened during the activity in which the child participants worked on the 'socialisation rules' assignment. For this assignment, I had asked the children to envision their own alternative *rules* for producing new social interactions in the park. I had asked them to draw pictograms that represented the alternative social behaviours they envisioned. Whereas most children started to draw pictograms, two boys found the textile banners we had been using during a morning activity. They started playing with the banners. They had been winding the textile banner around both their bodies and asked me to make a big knot so they would be tied up. I agreed and tied them together. The boys started to explore the park as if they were conjoined twins. Inspired by their playful intervention and expressions of fun, other children wanted to be tied up as well. Again, a new activity was initiated by some of the children: they were walking, jumping, running whilst being tied together. Although I could have interpreted their activities as *just* a form of free play, I realised—when taking a closer look *post factum*—that they had answered my question by using their *own* language—their body-language—instead of the language I had suggested: the pictogram language. Thus the children had made suggestions for alternative socialisation in the park by using a material (the textile banners) that allowed them to express their suggestions in their *own* preferred way. I also learned that different children preferred to actualise the assignment in different ways. Whereas some realised their suggestions through their body language supported by the textile banners, other children liked to express their views through visual language, words, and pictograms, and yet other children preferred to discuss them orally.

When I was reflecting on my experiences from the *Playful Rules* workshop, I realised that whilst I aspired for the children to create their own rules for social interaction in the park and thereby work on their participation in public space issues, the children had also initiated their own rules for the collaborative process of driving the participatory design workshop and its outcome. In other words, I understood that the children had agency and used their agency for actively participating in redefining the way I, alone, had designed and facilitated the workshop

Figure 1.1
The child participants exploring Parc de Forest and interacting with a white-painted line in the *Playful Rules* workshop.

Figure 1.2
Conjoined twins, the child participants
having free play with the textile banners in
the *Playful Rules* workshop.

structure. With their intervention and reconfiguration, the children had actualised a workshop process that involved all the workshop actors instead of involving only myself, the designer. I also learned that making space for external initiatives, the children's initiatives, was not an easy thing to do. Firstly, it messed up my initial plans (both structure-wise and content-wise). Secondly, it required additional time for reflecting on and negotiating these new initiatives. Thirdly, it demanded extra vigilance to safeguard that these new initiatives contributed to the workshop's question/aim. Furthermore, it also meant that I as a designer had to give up my unilateral control...

My early fieldwork (the *Playful Rules* workshop) focused on exploring ways that enabled the child participants to play an active role in the actualisation of the process. I was especially inspired by the early work of Umberto Eco and his book from 1962, *Opera Aperta*. In this study, philosopher, semiotician, and writer Eco focused on the multiplicity of meanings and the participation of the audience. He pointed to the positive effect of openness for involving the *audience* (i.e. readers, viewers, etc.) in the creation of an art work; enabling them to become active co-producers of the art work (Eco, 1989[1962]). I found related ideas by sociologist Michel de Certeau who wrote about the agency of users or *consumers* in subverting existing structures imposed by the initial creator (e.g. the author of a book, the cook and her/his recipes, the urban planners and architects of a city neighbourhood). de Certeau stated that users/consumers can appropriate these initial structures as a means to put their own agendas into practice (de Certeau, 1984). Furthermore, de Certeau understood consumerism as a secondary or hidden form of creative production which points at the consumers'/users' empowerment through their creative interpretation and appropriation of the initial structure. Both authors have pointed to the power of assembling a diversity of actors (and their different meanings) for transgressing and reconfiguring initial, single, and imposed meanings. In other words, Eco and de Certeau considered the simultaneous co-existence of several meanings—that is, ambiguity—as a valuable resource for reconfiguring structures defined by a single person into diversity-rich structures and thereby transgressing monopower and monoculture. Both studies transgress conventional views that unilaterally see ambiguity as a source of confusion and uncertainty. Their constructive view on ambiguity encouraged me to explore further the role of ambiguity when aiming to actualise a democratic

process. Furthermore, ambiguity foregrounding a plurality and diversity of meanings connects to a pluralistic view on democracy (Connolly, 2005; Mouffe, 1999a & 2000), promoting the presence of plural centres for developing democracy instead of one centre only (i.e. consensus).

Applying those views and insights to my participatory design practice with children, I came to realise that opening up the interpretation of the workshop structure could be a potential way for opening up the process actualisation to a diversity of meanings and a diversity of actors; and that ambiguity may be a potential resource for actualising a democratic process. Another important source of inspiration has been the study carried out by William Gaver and his colleagues who promoted ambiguity as a resource in design (2003). More specifically, they promoted ambiguity as a resource that can, on one hand, enable users to have a more personal engagement with a designed artefact or system, and on the other hand, enable designers to open up for other uses of the designed artefact or system than those defined by themselves. In this thesis, I have explored whether ambiguity can also be a resource for enabling children's personal engagement with the workshop structure in participatory design practices with children and more specifically for actualising a democratic process.

Thus the main research question driving my PhD project has been:

How can ambiguity be a resource for actualising democratic processes in participatory design practices with children?

In order to work with this question, I have divided it into the following sub-questions:

1   Which forms of ambiguity are activated in a participatory design practice with children; and which role(s) can these forms of ambiguity play in actualising a democratic process in participatory design practices with children?
2   How can designers work with ambiguity when aiming to actualise a democratic process in participatory design practices with children?

At the start of the second part of this introductory chapter (1.2), I have contextualised the research project in relation to the current state of democracy—crisis versus inclusion. I want to end this part with some words about the contextualisation of the research project in relation to the *cul-*

ture of which it is part—culture that is obviously also subject to changes in time. Just as the research project is embedded in and influenced by the way democracy is practised at a certain time, so it is also influenced by the specific cultures in which the research question is investigated.

I conducted my fieldwork in large to medium-sized cities in Belgium and Sweden; more specifically in Brussels, Ghent, and Gothenburg. All three cities are culturally diverse, but although the *Public Play* workshops have involved a diversity of nationalities, ethnicities, classes, and child ages, *Public Play* does not mirror perfectly the child diversity of these cities. The three cities are part of the wellness state system incorporating a large middle-class population but dealing with a growing gap between rich and poor. It is within this specific cultural context that I have conducted my fieldwork and in this cultural context that my research project and its contribution should be understood.

1.3
Research Significance and Audience

In this thesis, I focus on the role of ambiguity for actualising a democratic process in the context of participatory design practices with children. Therefore, I consider the main audience for this thesis to be researchers, practitioners, educators, and students concerned with practices situated in participatory design with children and participatory design in general. Nevertheless, the thesis may hold significance for other kinds of practices working on children's participation in society—that is, practices situated in other fields than design. This thesis may also hold valuable information for practices that work on the involvement of other marginalised social groups in societal change. Therefore, I consider researchers, practitioners, educators, and students concerned with practices situated in the fields mentioned above as another audience for this thesis.

The contribution and results are of significance to those who are interested in developing a better understanding of the micro-politics of child–adult power relationships in practices working on children's participation in society. The thesis contributes to discussions about the role of ambiguity in the actualisation of pluralistic democratic processes and about democratising democracy at large. The thesis is also a contribution to those seeking for a hands-on approach to actualising their practice as a democratic process.

1.4
Thesis Structure

The thesis is divided into seven chapters.

*Chapter 1—Introduction—*This chapter has so far addressed the three aspects that framed my research: my personal design practice combining "design for democracy" (DiSalvo, 2010), "relational design" (Blauvelt, 2008a), and "participatory design" (Simonsen & Robertson, 2012), my doctoral studies, and my engagement in the European-funded TRADERS research project. I have also introduced the research background, focus, and questions and briefly indicated the audience to whom this thesis may be of significance. After outlining the thesis structure, I will provide a glossary explaining my understanding of the key terms used in it. Finally, I will elucidate the use of photographs.

*Chapter 2—Children's Participation & Democratic Agency (Contextualisation)—*In this chapter, I will contextualise my research. In the first part, I will elaborate on the relation between democracy and citizen participation in society; with a focus on children's participation in society. In the second part, I will address children's participation in design and its broader context (users' participation in design). I will pay particular attention to the Scandinavian participatory design approach that embraces values of democracy, empowerment, and quality of work/life[13] (Ehn, 1990). I will also discuss current ways in which participatory design practices with children work on democracy. Finally, in the third part, I will focus on ambiguity. I will point out studies that link ambiguity and "openness" (Eco, 1989[1962]) with agency and democracy. I will pay particular attention to Gaver et al. and their 2003 study that promoted ambiguity as a resource in design, and I will explain their ambiguity categorisation that will be used as a basis for analysing my empirical material in chapter 4.

*Chapter 3—Research Through Design Interventions (Research methodology)—*In this chapter, I will explain why I chose to work with a "design anthropology" approach (Gunn et al., 2013; Smith, 2016) when doing "research through design" (Frayling, 1993). I argue for my specific

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Whereas the early forms of participatory design focused on improving the quality on the work floor, more recent developments also work on a wider range of issues and life in general.

research through design interventions approach and elaborate on the 3-step methodology (workshops—memorising—analysis) I developed for conducting the fieldwork (collecting data), constructing the empirical material (selecting data), and carrying out the analysis (analysing data).

Chapter 4—Public Play & Its Analysis (Empirical Material & Its Analysis)—This chapter holds the empirical material of this thesis. I will first explain the *Public Play* project from which the empirical material was generated. In this chapter, I will mainly describe the fieldwork whilst focusing on how I introduced *openness* into my participatory design approach followed by the multi-layered descriptions of (eight) specific workshop situations (i.e. *written memorisations*) that explain whether the workshop actors experienced the *openness* as ambiguity and how the workshop actors dealt with ambiguity. In this chapter, I also provide in-depth analysis of these eight *written memorisations* building on Gaver et al.'s 2003 ambiguity categorisation.

Chapter 5—Ambiguity as a Resource for Actualising a Democratic Process—In the fifth chapter, I use the analysis of my empirical material in order to answer my first research question "Which forms of ambiguity are activated in a participatory design practice with children; and which role(s) can these forms of ambiguity play in actualising a democratic process in participatory design practices with children?". I will start this chapter by explaining the role of ambiguity in the actualisation of a democratic process. I will then elaborate on the particularities and effects of each form of ambiguity (Gaver et al., 2003) and how they interact. In the second part, I will explain the particularities of actualising a democratic process through ambiguity by zooming in to the three requirements for actualising a democratic process. These requirements are: 1) the workshop actors experience several meanings consciously concerning the workshop structure and they appropriate ambiguity, 2) they negotiate the diversity of meanings equally, and 3) they actualise one/several/all meaning(s) responsibly. In the third part of this chapter, I will reflect on the meaning of my findings.

Chapter 6—The Ambiguity Approach—In this chapter, I will answer my second research question by creating a more generic approach on the basis of my practice and its analysis. I propose a framework that aims to help designers and other practitioners to work strategically with ambiguity in order to actualise their practice as a democratic process. This strategic framework—I call it the *ambiguity approach*—consists of five aspects the designer needs to work on: the *ambiguity approach* mindset,

the *ambiguity approach* ethos, awakening and appropriating ambiguity, directing the negotiation, and supporting responsibility fulfilment. I will give advice on how designers can work on each of these aspects, including how to deal with particular difficulties. I will end this chapter by indicating the need to appropriate the *general* strategic framework according to the particularities of the specific situation in which the designer is working. Here I propose that designers conduct an additional learning phase through real-life testing based on experience (learning-by-doing), repetition (learning-through-time), and exchange (learning-from-peers).

Chapter 7 — By Way of Conclusion — In this last chapter, I will summarise the knowledge contribution of this thesis and its implementations for participatory design with children and other design areas, for children's participation in society, for democracy at large. I will also reflect on the limitations of my study and point out directions for future research.

Throughout the book, you will find words or sentences marked in blue. I have highlighted these parts because they are key content within the specific text parts. In addition, I have put the *written memorisations* in blue.

Furthermore, I have chosen for a sober table of contents. However, in order to facilitate your reading within each chapter — where some chapters contain more complex content than others — I have provided a 'chapter content navigation map' at the start of each chapter.

1.5
Thesis Glossary and Language

In this glossary, I will describe my understanding of the key terms I will be using in this thesis. For the convenience of the reader, I have also placed this glossary on the foldout of the book cover. In this way, readers can easily access the glossary at any time whilst reading.

Ambiguity — In this thesis, I understand *ambiguity* as "the quality of being open to more than one interpretation; inexactness" (Lexico.com, 2019). When a person experiences ambiguity, s/he experiences several meanings within her/his interpretation of an object, space, structure, situation, etc.

In principle, in this thesis, the terms *openness* and *ambiguity* refer to the same[14] thing but I have chosen two different terms to indicate the difference between 'ambiguity as input' (openness present in a situation)

and 'ambiguity as output' (ambiguity in meanings experienced). In other words, I will use the word *openness* when referring to the ways in which a designer intentionally introduces ambiguity—such as *openness* in the interpretation of an object, space, structure, situation, etc.—whereas I will use the word *ambiguity* when referring to the ways in which the workshop actors consciously experience ambiguity—such as the simultaneous presence of several meanings of an object, space, structure, situation, etc.

Child—The *Lexico.com* online dictionary defines a child as "a young human being below the age of puberty or below the legal age of majority" (Lexico.com, 2019). In Belgium and Sweden, 18 years old is considered as being the legal age of majority. I will therefore use the term *child/children* when referring to people below 18 years of age. Although I acknowledge that there are differences between different age groups (as well as differences in personality, gender, class, ethnicity, etc.), I will use the term *children* to cover all ages up to 18 years of age. I mainly do this in order to avoid long lists and sentences and advance the readability of this text. However, I will mention children's specific age when relevant as well as using two different terms, young participants and child participants, to clarify whether I was working with teenagers or younger children in the *Public Play* workshops.

Democracy, democratic outcome, democratic process—Although *democracy* is generally used to cover the related concepts of 'power distribution' and 'equal power relationships', I will use the term *democracy* to refer to practices that realise values of freedom, equality, and justice. In this thesis, I have used my design practice as a means for improving democracy through the active participation of "unrecognised citizens" (Sassen, 2005)—more specifically children—instead of using design as a means for transforming formal political systems used for governing society.

My thesis builds on my claim that, to this date, many (participatory design) practices working on children's participation in society most often only focus on realising a democratic outcome whilst they fall short in actualising a democratic process. By a *democratic outcome*, I mean the way in which these practices concern realising citizen participation in society. In other words, the outcome contributes to their

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Umberto Eco has already linked openness and ambiguity when defining openness as "the fundamental ambiguity of the artistic message" (Berndt & Koepnick, 2018). Berndt & Koepnick took this definition from the untranslated introduction of the second edition: Umberto Eco, Opera aperta, Milan 1997, 18f.

freedom, equality, and justice in a certain issue/question/situation in society. By a *democratic process*, I mean the way in which these practices help to realise freedom, equality, and justice *within* themselves. In other words, the process itself actualises values of freedom, equality, and justice—a process that is based on just actions and interactions (justice) in which a diversity of both children's and adults' meanings/suggestions are equally considered in a shared decision-making process (equality) and the children's and adults' meanings/suggestions represent their individual values, interests, and backgrounds (freedom).

Children's participation—See 'Participation'.

Citizen participation—See 'Participation'.

Openness—See 'Ambiguity'.

Participation, citizen participation, children's participation—By the term *participation*, I mean theories, methods, and practices that apply to *citizen participation* in society. In this thesis, I understand *participation* within a political context when referring to a particular approach that engages citizens in democratically taking an active role in developing society.

In this thesis, I will use the term *children's participation* when referring to theories, methods, and practices that specifically apply to children's participation in society.

On some occasions, I have shortened 'citizen participation in society' and 'children's participation in society' as 'citizen participation' and 'children's participation' for reasons of readability.

Participatory design, participatory design practice—I will use the term *participatory design* for referring to a specific design approach. It is a set of theories, studies, methods, and practices that use specific design strategies for developing collaboration between different actors working on a common issue/question/situation. Participatory design is part of a broader range of approaches working on users'/citizens'/children's participation in design, e.g. co-design and human-centred design.

By the term *participatory design practice*, I mean the ways in which participatory design theories, studies, methods are practised.

In this thesis, I work with both 'children's participation in society' and 'children's participation in design'. There is an important difference between these practices. The first type of practice is more general and refers to how practitioners work on children's participation in society in a variety of fields (including design) and their specific methods (e.g. participatory design). The second type refers to practice that involves chil-

dren in design processes (i.e. co-design) and/or uses a design approach for working together with children (i.e. participatory design) on a variety of topics (e.g. children's participation in public space). In other words, participatory design practices that work on children's participation in society constitute one of many ways in which practitioners can work on children's participation in society whereas children's participation in society is just one topic that participatory design with children works on.

Workshop, workshop actors, workshop outcome, workshop process, workshop question, workshop structure—In general, the term *workshop* can refer to "a meeting at which a group of people engages in intensive discussion and activity on a particular subject or project" (Lexico. com, 2019). In the context of this thesis—participatory design practices working with children—I understand a workshop as being the medium par excellence in which a group of people (adults and children, possibly representing different interest groups) play an active role in working on a common issue/question/situation or an issue/question/situation that matters to children in particular.

By the term *workshop actors*, I mean the individuals involved in the workshop. These individuals are mostly grouped in different *workshop actor categories*. The most typical workshop actor categories involved in participatory design practices with children are designers, child participants, child-carers, and interest groups related to the specific workshop question. These different workshop actor categories have different roles in the workshop. The *designer* (or team of designers) is typically occupied with running participatory design *workshops*. S/he mainly does this by creating a framework or structure that guides the workshop actors working on a common question. I call this guiding structure: the *workshop structure* (see below). Whilst the designer designs the workshop structure in advance, s/he will help the workshop actors to put this workshop structure into practice during the workshop when facilitating the workshop. This means that the designer has two different roles in the workshop: as organiser and *designer* of the workshop structure and as *facilitator*. In many cases, the designer and facilitator are the same person in different roles before and during the workshop process but the designer and facilitator may also be separate people. The *child participants* are a group of children who are interested and have voluntarily agreed to work on the workshop question. Similarly, the *young participants* are a group of teenagers who are interested and have voluntarily agreed to work on the workshop question. In this thesis, I understand the child participant and young partic-

ipant groups as assemblies of a wide range of individuals rather than as homogenous groups. In some cases, the child participants are accompanied by their parents or carers who can help to create a bridge between the designer and the children. I refer to this workshop actor category as *child-carers*. Furthermore, although all of the workshop actor categories previously described are different interest groups or stakeholders, I will use the term *stakeholders* for referring particularly to the group of 'other interest groups' besides designers, child participants, and child-carers.

The *workshop question* is a specific but a broad question encompassing the common issue/question/situation that the workshop actors have decided to work on.

A *workshop structure* is a framework designed by the designer in order to help/guide the workshop actors in working on the workshop question. This structure is typically composed of the designer's choice of assignments, material, setting, designer role, child participant role, and goal. The workshop structure is designed by the designer in advance. It is put into practice by the various workshop actors with the help of the facilitator.

The very act of the workshop actors putting the workshop structure into practice creates the *workshop process*. This means that the workshop structure guides and directs the workshop process. The workshop process leads to and will eventually result in the *workshop outcome*. This outcome does not need to be tangible; it can also exist in the forms of ideas, awareness, or knowledge that may, in turn and over time, generate change.

The specific *ambiguity approach* I promote with this thesis encourages the workshop actors to appropriate the initial designer-designed workshop structure according to their personal meanings (values, backgrounds, and interests) and actualise a democratic process that possibly includes their diversity of meanings. I refer to this initial workshop structure as the *given workshop structure*. The given workshop structure is the status of the workshop structure at the moment when the designer/facilitator *gives* or communicates the structure to the other workshop actors (e.g. to the child participants). I use the term *appropriated workshop structure* when referring to the status of the workshop structure after being appropriated by the other workshop actors (e.g. by the child participants).

The terms previously described have specific relations to each other: in a participatory design context, the workshop involves a group of workshop actors situated in different categories—designer, child participants, child-carers, and stakeholders—each having specific roles in

the workshop. The designer's role consists of designing a guiding workshop structure (designing) and helping the workshop actors to put this workshop structure into practice (facilitating). The workshop actors typically use the given guiding workshop structure to actualise a particular process that results in a specific outcome.

A final remark goes to the way in which I will be using the first person singular in this thesis. On one hand, I will use the first person singular when expressing my thoughts as a writer and a design researcher communicating her research. On the other hand, I also filled the roles of designer and facilitator in my fieldwork. Therefore, I also use the first person singular when referring to those roles. The first person singular will mostly be used in chapter 4 (i.e. the written memorisations) or when referring to this fieldwork in chapters 5 and 6. Furthermore, the first person singular in my fieldwork may refer to my designer role or my facilitator role. The first person singular will refer to my designer role when I describe events from *before* the workshop started. It will refer to my facilitator role when I describe events *during* the workshop. Although this may sound confusing at first sight, my specific roles—researcher/writer, designer or facilitator—should be clear from the context. In order to avoid confusion in certain situations, I will give clear indications.

Finally, there will be moments when I will be writing in a more generalised way. At those times, I will most probably refer to my designer and facilitator role in the more distant third person singular. Although I will be using the female format—referring to myself and my experiences—I will obviously be including all genders.

1.6
Thesis Images

This thesis contains two series of photographs. The image prelude consists of eight photographs that are meant to give a sense of the *Public Play* workshops. I have therefore placed this series at the very start of the book. The image epilogue consists of another eight photographs. These photographs relate to my fieldwork in which I explored various ways of introducing openness in my participatory design approach. Many of these ways were intangible and therefore not possible to represent through photographs. This means that the epilogue only shows a limited number of the many ways in which I included openness in my

participatory design approach. Again, the photographs do not aim to provide information. The *written memorisations* describing particular workshop situations in chapter 4 will give a more accurate representation of the fieldwork and the various ways in which I included openness in my participatory design approach. The selection of these photos is based on safeguarding the anonymity of the children.

Children's Participation & Democratic Agency

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In this chapter I aim to contextualise my research. I will explain and discuss existing studies and practices that constitute the research background. Firstly, I will elaborate on the relation between democracy and citizen participation with a focus on children's participation in society. Next, I will address children's participation in design and its broader context (users' participation in design). I will pay particular attention to the Scandinavian participatory design approach that embraces values of democracy, empowerment, and quality of work/life[15] (Ehn, 1990). I will also discuss current ways in which participatory design practices with children work on democracy. Finally, I will focus on ambiguity. I will point out studies that link ambiguity and "openness" (Eco, 1989[1962]) with agency and democracy. I will pay particular attention to the 2003 study by William Gaver and his colleagues that promoted ambiguity as a resource in design, and I will explain their ambiguity categorisation that I use as a basis for analysing my empirical material.

2.1
Children's Participation in Society

Before zooming in on children's participation in society, I want to discuss its broader context: citizen participation as a means for practising democracy. I will explain the origin and developments of citizen participation in society and address current critiques and directions that can improve democracy and citizen participation. I will also explain some key concepts related to pluralistic democracy and citizens' emancipation that have inspired my design practice: the *Public Play* project. Finally, I will zoom in on children's participation in society. Here I will highlight the importance of child–adult relationships and how they frame children's participation in society.

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Whereas the early forms of participatory design focused on improving the quality on the work floor, more recent developments also work on a wider range of issues and life in general.

Citizen Participation Is a Means for Practising Democracy

Although we most often associate the concept of democracy with the way the *demos*[16] governed the polis Athens in Ancient Greek times, there is a huge difference between the way democracy was practised in the 5th to the 4th centuries BC and its reintroduction since the French Revolution and the American Revolution at the end of the 18th century. Whereas the ancient model was based on the direct participation of citizens[17], the democratic model used by many Western nations since the end of the 18th century is based on representation. In representative democracy, political decisions are made by a limited group of representatives who are elected by the citizens. In direct democracy, the citizens themselves make decisions regarding how they live together in society. Over time, the representative model has been adjusted to the states of affairs of the day, including developments that aimed to involve citizens in a more direct way. Starting with the social protests in 1968, citizens have expressed their need—in words and deeds—to be more directly involved in developing society. They sought for new forms of participation that went beyond voting only. Ever since the 1970s, both citizens and governmental institutions have worked on involving citizens more directly in political decision-making.

Thus, in the wide spectrum of practising democracy, we can distinguish three main forms: direct democracy, representative democracy, and participatory democracy. In a direct democracy, citizens have a direct say in decision-making. In a representative democracy, citizens are not involved in decision-making in a direct way but through representation. In a participatory democracy, (groups of) citizens are occasionally directly involved in decision-making in addition to the overarching representative decision-making. Whereas direct democracy

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The word *democracy* (dēmokratia) derives from "demos" and "kratos" respectively referring to the "people" and "rule" or "power".

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In Ancient Greek democracy, only male citizens above 18 years of age could speak and vote in the assembly whereas women, children, slaves, and foreign residents were not considered as being citizens and were therefore excluded from the political process.

and representative democracy can be seen as two extremes on this spectrum, the participatory democracy approach can be positioned in between the two. The main difference between representative democracy and the other two approaches that involve citizens in a (more) direct way, is the way they approach decision-making. Whereas the representative approach focuses on reaching a decision (outcome-orientated), the two other approaches develop decisions in a more gradual way and over time (process-orientated).

There exist many ways of involving citizens in political decision-making. In general, we distinguish two main approaches: bottom-up and top-down. At one end of the spectrum is the bottom-up approach. This involves activist citizen groups that take their own initiatives to improve their everyday life situations. These initiatives range from political decision-making to hands-on interventions. At the other end of the spectrum, we find a top-down approach in which governmental institutions propose their own formats for citizen participation. These top-down organised forms of citizen participation enable governmental institutions to *control* and sometimes even direct citizen participation. Bottom-up or top-down approaches to citizen participation each have pros and cons. Firstly, a bottom-up approach can be seen as a *good* way to involve citizens when those at the top do not represent the citizens' concerns or when the decisions made at the top do not correspond with basic democratic values. However, a bottom-up approach can also be criticised for expressing and involving the voice of a limited group of citizens only—a group that does not represent the whole population. Furthermore, bottom-up citizens' participation may not always result in large-scale and sustainable changes when their voices and actions are not considered by those at the top. Secondly, a top-down approach gives rise to many critical questions. Scholars have questioned whether top-down and institutionalised forms of citizen participation actually represent citizens' voices or whether they just constitute another form of tokenism through which those at the top keep all control resulting in a status quo.

My research project aims to make use of both approaches. Firstly, it aims to involve citizens' personal values, backgrounds, and interests in the way that top-down practices of citizen participation are designed and organised to do, and thus democratise the interactions between the different actors and interest groups involved. Secondly, it aims to develop democratic interactions between the different actors involved in bottom-up citizen participation projects.

Democratising Citizen Participation,
Democratising Democracy

A critical view on current practices of citizen participation addresses the need to democratise citizen participation—that is, strengthen core democratic values (freedom, equality, and justice) in practices that aim to be democratic. This includes questions such as: who is participating in a democracy, which citizens and citizens' groups are participating in practices concerning political decision-making, and the reverse, who is not (yet) participating in society? This last formulation reveals the issue of exclusion from political decision-making.

There have been many efforts during the 20th century to make democracy more inclusive. These efforts started with women's suffrage in the first part of the 20th century. From the end of the 20th century, there has been a growing interest in including those social groups who do not (yet) hold a place within representative democracy. The sociologist Saskia Sassen discusses the recent emergence of "new political subjects" (2005) due to globalisation, like immigrants, refugees, and other unrecognised citizens. Sassen has shown that such "unrecognised citizens" are excluded from formal practices of citizen participation and develop alternative spaces for practising politics (Sassen, 2005). Furthermore, Sassen points out public space as a suitable space for developing alternative spaces for politics to enable unrecognised citizens to participate in democracy. The genesis of the UNCROC in 1989 and its ratification by many nations has been an important start for working on children's participation in society. However, scholars (i.e. Lareau, 2002 & 2003; Bennett et al., 2012; Karsten & Felder, 2015) have criticised children's participation in society as being foremost an exclusive privilege for white middle-class families. They proclaimed the urgency of making children's participation more inclusive and engaging a diversity of children. For instance, the urban geographer Lia Karsten has questioned issues of in-/exclusion within children's participation in public space. She stated that it is mostly white middle-class parents who are informed and engaged enough to involve their children as change-makers in public space issues. This has resulted in unequal representation in local child demography in practices working on children's participation in public space (Karsten & Felder, 2015). The defects revealed by Karsten indicate the need for a more intersectional reading of those practices.

Despite the increasing interest and growth of citizens' participation in society in the past decades, some scholars (Cupps, 1977; Irvin & Stansbury, 2004; Fung, 2015; Parvin, 2017 & 2018) have contested the idea of mass participation. They reject the attitude of 'the more who participate the better'. The political philosopher Phil Parvin argued that citizens' participation requires personal engagement, responsibility, and knowledge, and may not be suitable for every citizen (2017 & 2018). Parvin is convinced that e.g. citizens who do not have adequate knowledge about a certain topic are not qualified to make serious decisions on it, and that citizens who have no opinion about a certain topic should not be *forced* to participate in this topic. In other words, Parvin and peers made clear that producing qualitative change in society requires citizens' participation with intensive and critical engagement. Parvin's ideas connect to another group of scholars who stressed the importance of educating citizens for participating in democracy (Dewey, 1916; Follett, 1998[1923]; Gutmann, 1987; Giroux, 1989; Kelly, 1995; Biesta et al., 2013). Similarly, Zlata Ploštajner and Ivona Mendeš understand citizens' participation as a "school for democracy" (2005) in which citizens can learn to participate in society by exercising their citizen's role in practice. Ploštajner & Mendeš see citizen participation as a skill that needs to be developed and continuously updated.

Other opponents of mass participation have argued that citizen participation requires much more time (Lawrence & Deagen, 2001) compared with other approaches, and hence produces too many costs (Irvin & Stansbury, 2004). And although short-term and event-style projects can occasionally function as *activators* of change, they are often organised for the sake of *showing* the outside world that citizens are involved no matter the quality of their outcomes (see manipulation; Arnstein, 1969).

Other critics point to the current crisis in democracy. This crisis emerged from a number of causes. For instance, citizens' participation does not always equal a democratic practice. Many top-down practices working on citizen participation are often no more than a form of tokenism in which decisions planned by those at the top are affirmed. Another cause can be found in the word *democracy* being watered down to a word without meaning. In many European democratic nations, we witness a rise in populism and neoliberal values prioritising economic profit above basic democratic values: equality, justice, and freedom. Thus if we want to democratise democracy, we need to work on reintroducing those values. In practice, we need to evaluate critically whether or not

current practices of citizen participation actualise those democratic values—equality, justice, and freedom—and work on shortcomings accordingly. My research project is mainly occupied with actualising those democratic values, specifically when actualising the process of participatory design practices with children.

Pluralistic Democracy Through Agonism and Critical Awareness

Over time, many scholars have expressed their ideas on how democracy should and could work. Some theorists have stressed consensus (Habermas, 1996; Rawls, 1993), others have argued for a plurality of voices. Whereas the former strive for agreement amongst the decision-makers, the latter aim to develop a diversity-based democracy (Connolly, 1987; Tully, 1995; Mouffe, 2000). In political theory, *pluralism* is generally understood as power distribution among a variety of social interest groups instead of a concentration of power within a single elite or group of elites. According to the Encyclopaedia Britannica, "Pluralism assumes that diversity is beneficial to society and that autonomy should be enjoyed by disparate functional or cultural groups within a society, including religious groups, trade unions, professional organizations, and ethnic minorities" (Britannica.com, 2008).

The American political theorist William Connolly may be seen as the pioneer of reforming pluralism. Connolly developed his ideas as a reaction to the way in which early political theories on pluralism (i.e. America in the 1950–1960s) did not consider a diversity of voices in practising democracy, hence excluding the voices of marginalised social groups. Connolly argued for seeing pluralism as a goal for developing democracy and for distributing power over various centres/groups instead of one centre/group only. He rejected the idea that different groups need to reach consensus when working on democracy and proposed "agonistic respect" as an alternative approach for developing pluralism in democracy (Connolly, 1987). With his idea of "agonistic respect", Connolly understands conflict as an inherent aspect of assembling different groups who each have different values and interests. Connolly pointed out the importance of dealing with those conflicts instead of ignoring or eliminating them. He saw conflict as a means to develop a diversity-based democracy.

The Belgian political theorist Chantal Mouffe shares this agonistic approach for developing a pluralist democracy. She proposed a model for "agonistic pluralism" (Mouffe, 2000 & 2005) in which conflict between social groups is seen as a necessary and positive component for developing pluralistic democracy. According to Mouffe, conflict can help to make differences between social groups explicit, hence workable. Mouffe argued for approaching conflicts as a 'conflict with an adversary' meaning that we need to approach conflict whilst having respect for the existence of the other, the adversary, instead of seeing the other as an *enemy* who needs to be destroyed (i.e. antagonism) (Mouffe, 2010). Furthermore, Mouffe highlighted the radical potential of artistic practices for developing agonistic democracy (Mouffe, 2007).

The Belgian cultural sociologist Pascal Gielen stated that a healthy democracy is based on three pillars: representative, deliberative, and agonistic decision-making and that, to date, many Western European countries use a representative and deliberative approach whilst ignoring agonistic decision-making (Gielen, 2019)[18]. He added that representative and deliberative decision-making primarily benefits recognised citizens above 18 years of age and an articulate middle class in particular. This means that representative and deliberative decision-making do not sufficiently consider the voices of citizens and newcomers who fall outside the normative class categorisation or who do not have the verbal and *appropriate* communication skills[19]—that is, people who have difficulties in articulating their own needs because e.g. they do not speak the language, they have difficulties in speaking for a group, or their culture is simply not recognised (ibid.). Thus Gielen argues for the urgency of practising agonistic decision-making in times of a growing diversity of the population in many Western cities and nations. Furthermore, just like Mouffe, he pointed out the

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The following insights build further on an opinion piece by Pascal Gielen published in *De Standaard*, a Belgian newspaper, on 13 November 2019. Gielen wrote this piece in response to the Flemish government's drastic cuts in their funding to cultural institutions and artists' projects. Retrieved from https://www.standaard.be/cnt/dmf20191112_04712638, November 2019.

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This my own translation of an excerpt of Pascal Gielen his opinion piece in *De Standaard* newspaper from 13 November 2019. Retrieved from https://www.standaard.be/cnt/dmf20191112_04712638, November 2019.

important role of cultural and artistic[20] practices (ibid.) for agonistic decision-making and the development of democracy. Although Gielen does not specifically refer to children, I recognise children as one such social group that falls outside representative and deliberative decision-making, and hence is excluded from formal structures that support their participation in democracy.

Over the past decades we have witnessed the emergence of art practices working on agonistic pluralism, e.g. participatory art practices. These art practices function as platforms for rethinking and reconfiguring society. They enable artists and citizens to question conventional values (e.g. the work of the Francis Alÿs, Annette Krauss, and Suzanne Lacy to name a few), conceptualise and test radical new ideas (e.g. the work of i.e. Pablo Helguera and Jonas Staal), and work on people's empowerment (e.g. the work of Jeanne van Heeswijk, Andrea Francke, and Febrik). In addition, we may notice recent efforts by cultural institutions to develop programmes that aim actively to invite diverse publics (i.e. Tensta Konsthall in Stockholm, Casco in Utrecht, and Laboratoires d'Aubervilles in Paris).

The above-mentioned theories and practices advocating and practising pluralist democracy inspired my design practice: the *Public Play* project. They encouraged me to include a diversity of social groups in practising democratic participation, including children as "unrecognised citizens" (Sassen, 2005). In addition, Chantal Mouffe's "agonistic pluralism" (Mouffe, 2000 & 2005) inspired me to work on a participatory design approach that respects individual diversity. Furthermore, Mouffe (2007 & 2013) and Pascal Gielen (2011 & 2017) convinced me about the value of using my design practice as a means for democratising democracy and developing a diversity-rich democratic process.

Paulo Freire's (2000[1968]) ideas of empowering oppressed sociopolitical groups have inspired the *Public Play* project from the very start. This Brazilian educator and philosopher developed both a theoretical and a methodological framework for emancipating people from power-

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Building further on the fact that in some cases the boundaries between art and design practices can be blurry, I take the freedom to add that some artistically-orientated design practices or design for democracy practices can also contribute to the development of deliberation or to agonistic democracy.

less situations. Freire developed his ideas from working with poor and illiterate Brazilian farmers in the 1960s. His praxis is based on his idea that people who are able to 'read the word' are also able to 'read the world' and change it. His motto "reading the world by reading the word" (Freire, 1985) foregrounds his two major ideas:

- *Reading the world* stressed the importance of "critical consciousness" (Freire, 2000[1968]). Freire argued that oppressed people can bring effective change into their situation when developing a better and critical understanding of their personal situation and its wider (political) context. This critical awareness enables the oppressed to take action against elements of oppression and to become conscious actors—"subjects"—in their own situation (micro) and in the development of a democratic society (macro).
- *Reading the word* foregrounds Freire's specific approach to developing such awareness. Freire understood literacy as a gateway to broader knowledge in addition to literacy being a necessary requirement for voting in presidential elections in Brazil in the 1940s (Bethell, 2000). Based on the idea of literacy, Freire developed a methodological approach that he called "cultural circles" (Freire, 2000[1968]). "Cultural circles" (ibid.) are a sequential series of group meetings in which people learn to read whilst developing critical understanding about their everyday life situation and its context[21]. Freire understood this learning as a mutual process between the different *oppressed* learners. The oppressed individuals developed critical awareness about their own situation in dialogue with their peer oppressed learners. This means that the individual learners played a dual and active role in their learning process. On one hand, they supported their own learning, and on the other hand, they also supported the learning process of the other learners. The collective played an important role in this process. And,

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[21] More concretely, "critical circles" (Freire, 2000[1968]) is a process-based educational approach based on two main phases. In the first phase, the oppressed people share their experiences and with the help of the facilitator, they generate common themes (generative themes) they want to explore further. It is a 'problem posing' phase in which the group codes issues they want to work on. In the second phase, there is more dialogue between the oppressed people; this time the dialogues focus on problem-solving and generating action at a personal or societal level. In this phase, the facilitator opens up opportunities for the oppressed people to deconstruct the issues which trouble their lives.

although the learning was facilitated by an educator, the educator engaged in 'working with' rather than 'acting upon'. In other words, the educator's role did not aim to transmit information in a one-way direction (i.e. more traditional ways of educating) but aimed "to enter into dialogue with the illiterate about concrete situations and simply to offer him the instruments with which he can teach himself to read and write." (Freire, 2013[1965], p.45). With his praxis for political liberation and emancipation, Freire stressed the active role of the oppressed individual in working on her/his liberation. However, he claimed that true liberation can only occur when the oppressors themselves are willing to examine their own role in the situation of oppression critically and rethink their way of life. In other words, Freire's approach stressed the mutual effort of both oppressors and oppressed individuals for developing democracy.

Whereas on one hand it may seem evident to situate Freire's approach in an educational context, on the other hand, Freire understood education foremost as a political act. He saw education as the "practice of freedom" (2000[1968]) that aimed for democratic outcomes. Thus we can situate Freire's work as much in a political context as in an educational context. Furthermore, Freire's political ideas have been applied in a variety of fields, including art and design, Augusto Boal's "theatre of the oppressed" (2000[1979]) being an early and well-known adaptation. The theatre practitioner Augusto Boal translated Freire's *Pedagogy of the Oppressed* (2000[1968]) ideas into theatrical techniques (e.g. theatre of the oppressed, forum theatre, and invisible theatre). In the "forum theatre" technique (Boal, 2000[1979]), a small/community-ty-scale 'problem situation' is re-enacted by the people who experience the situation as problematic. Most often these actors[22] are *amateurs* at acting but experts on the situation; they themselves are the ones who are dealing with the problem and will benefit from solving the issue. The re-enactment helps them to reveal the particularities of the problem while the acting aims to facilitate problem-solving. In addition, self-acting and self-solving can reinforce the individual's self-reflection and self-empowerment. Another particularity of this method is the possibility of shifting roles, as when a person from the audience, a spectator, assumes that s/he is able to provide a better solution than

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With the term *actors*, I refer (in this part of the text) to actors as in a theatre context.

the one proposed by the current actor. S/he may then call for a shift in roles, hence initiating a transformation from being a spectator (being part of the audience) into being an actor her-/himself. The empowered "spect-actor" (ibid.) thus takes a proactive stance in co-constructing the re-enactment and *solution* of a particular situation.

The current crisis in democracy can be seen as one reason why I felt connected to Freire's radical ideas that were developed in a time of military dictatorship. The most important reason to fall back on Freire is undoubtedly his ideas on the reconfiguration of power relationships. Although it seems a little exaggerated to stick the terms *oppressed* and *oppressors* onto child–adult relationships in practices working on children's participation in society, Freire invited me to take a more critical look at those child–adult relationships and even more to activate both children and adults to bring change to them. Furthermore, I see Freire's "cultural circles" (Freire, 2013[1965]) as an alternative space in which unrecognised citizens can practise politics (Sassen, 2005), and which is the kind of space I aimed to develop with the *Public Play* workshops. Finally, the "cultural circles" (Freire, 2013[1965]) concept convinced me of the role of *collective power* for individual empowerment. By *collective power*, I mean the way that the assembly of individuals and their interaction develop a "power with" (VeneKlasen & Miller, 2002) based on a common interest.

Whereas Freire's approach aimed to activate the *oppressed* citizen and learner in her/his learning process to freedom, Jacques Rancière focused on how educators can change their mindset, attitude, and approach for liberating students from oppressing educational structures. With his idea of "intellectual equality" (1991[1987]), Rancière addressed the unbalanced power relationships between teachers and students in traditional educational institutions. This political philosopher developed his ideas from the educational situation in France in the 1980s. He criticised the way those educational institutions built on concealing knowledge from students as a means to make the students feel dependent on teachers and their knowledge *instructions*. In his book, *The Ignorant Schoolmaster* (1991[1987]), Rancière stated that people are equally intelligent, and that poor people are not less intelligent than others. In other words, Rancière saw equality as a starting point rather than a destination. Rancière proposed *universal teaching* as an approach for obtaining "intellectual equality" (ibid.). By *universal teaching*, he meant a 'teaching oneself approach' that uses storytelling instead of instruction.

Furthermore, Rancière did not want to abolish the teacher but to redefine her/his role as one that is primarily occupied with strengthening the student's will and confidence to learn her-/himself instead of being occupied with creating passive receptors of instructed knowledge.

Both Freire and Rancière aimed to transgress unequal power relationships between different social groups by working on a micro-political scale. Although each of their approaches focused on the activation of another group—Freire stressed the activation of the oppressed whereas Rancière emphasised changing the oppressive teaching—they both pointed out the need to bring change in both camps. In other words, both Freire and Rancière highlighted the need for both *oppressed* and *oppressor* or student and teacher to change their mutual situation. My research echoes the importance of such mutual change-making.

Children's Participation in Society Is (Still) in Full Development

Children's participation is part of the recent developments that aim to make democracy more inclusive. The initial democratic practice in Ancient Greece did not include slaves, women, and children, nor even all men. Whilst women's participation in society originated and developed from the second half of the nineteenth century, children's participation did not start before the end of the twentieth century. Nevertheless, its origins date from much earlier. Before the seventeenth century, children in Europe were mostly perceived as incomplete versions of adults. From the sixteenth century on, children started to be recognised as separate beings. With the construction of *childhood*, a particular period was dedicated to children being in the *state* of being a child and becoming an adult. The separation of children from adulthood allowed adults to develop views on how children were to be perceived in relation to their role and position in society. It also allowed them to decide how children ought to be brought up and educated. Thus childhood is a social construct (Ariès, 1962) in which adults define and control children's mindset and behaviour.

However, although the genesis of childhood may have increased adult control, its various developments over time have also contributed to improvements in the lives of most European children. One such major change has been children's exemption from formal work, mainly

replaced by education and play activities. Another major change has been the development of children's rights and participation in society. The Swedish social theorist Ellen Key predicted that the twentieth century would be "a period of intensified focus and progressive thinking regarding the rights, development, and well-being of children" (MoMA, 2012, para 2). Key foregrounded children's rights, development, and well-being as being of the utmost importance to society. Her positive predictions came into focus again towards the second half of the 20th century when the social movements of the 1960s started to advocate children as social actors in their own right. At the same time, postmodern scholars on childhood argued for perceiving children as subjects in their own right. These scholars rejected seeing the child as an innocent and incompetent being in a state of social and political apprenticeship (Wyness et al., 2004). Instead they argued for perceiving children as "becomings" and "beings" just like adults (Qvortrup, 1991 & 1994). These postmodern views on childhood stress children's capabilities and responsibilities and promote children's political participation.

Another milestone for children's participation was the genesis of the Convention on the Rights of the Child by the United Nations in 1989. It helped to develop awareness about children's rights and the perception of children as social actors. This human rights treaty advocates children's right to e.g. human treatment, appropriate living conditions, healthcare, education. It lists 54 articles that can be classified into three categories: provision, protection, and participation (Young-Bruehl, 2012). Article 12 of the UNCRC, in particular, pays attention to children's participation[23]. This article states children's right to be informed, their right to express their own views on issues that concern them and finally to have their views respected and heeded in relation to age and maturity. Article 12 has been the starting point for many scholars and practitioners working on the development of children's participation.

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United Nations Convention on the Rights of the Child, article 12:

1 States Parties shall assure to the child who is capable of forming his or her own views the right to express those views freely in all matters affecting the child, the views of the child being given due weight in accordance with the age and maturity of the child.

2 For this purpose, the child shall in particular be provided with the opportunity to be heard in any judicial and administrative proceedings affecting the child, either directly, or through a representative or an appropriate body, in a manner consistent with the procedural rules of national law.

The *United Nations Children's Fund* (UNICEF) understands children's participation as a means for "encouraging and enabling children to make their views known on the issues that affect them (...). It ensures their freedom to express themselves and takes their views into account when coming to decisions that affect them" (Bellamy, 2002, p. 4). The children's rights scholar Roger Hart defines children's participation as "the process of sharing decisions which affect one's life and the life of the community in which one lives" (Hart, 1992, p. 5). Furthermore, Hart understands participation as a means by which a democracy is built. It aims to involve all individuals—from all kinds of social groups—as active citizens in the production and development of a society and to give equal importance to the diversity of individual voices. Children's participation in society includes children in societal change which means that advancing the democratic project is a political act. Children's active involvement in decision-making processes affects both their own lives and the life of their community. And, because children below 18 years of age are not eligible to vote, their active involvement in projects working on children's participation in society is their only way to have a say in the way we organise society. Such projects are organised in a variety of fields and a variety of ways (e.g. top-down or bottom-up, over short-term or long-term time spans).

The emergence of children's participation gave rise to opposing reactions. Whilst one camp sees children's participation as the way to go forward for developing a more democratic society, other adults want to protect children from being involved in the problems of society and advocate a responsibility-free childhood. Yet another camp doubts the whole concept because they believe that children simply do not have the decision-making capacity of adults.

Educationist Greg Mannion lists four rationales that argue for children's participation: enlightenment, empowerment, citizenship, and intergenerationality (Mannion, 2010). Firstly, the *enlightenment rationale* (Warshak, 2003 in Mannion, 2010) encourages children's participation as a resource for better services for children. This rationale understands children's participation as children providing information to adults who promote children's health, welfare, and education. Here, children's participation works as an *enlightenment* for adults who make decisions on behalf of children. This view thus implies that children are incapable whilst adults (only) are able to produce and develop children's welfare (Mannion, 2010). Thus children's participation as enlighten-

ment involves children in a limited informant role meaning that they do not take part in actual processes of decision-making. Secondly, the *empowerment rationale* stems from a political agenda according to which children are seen as a minority group who need to have their interests served (Qvortrup, 1994). The genesis of the UNCROC forms the basis for seeing children as *complete* individuals or citizens with rights and responsibilities of their own (United Nations, 1989). Thirdly, the *citizenship rationale* is closely related to the empowerment rationale. This rationale departs from the idea that children also need to develop a sense of obligation and responsibility to society (Steele, 2005 in Mannion, 2010) and consequently prepare themselves for participating in civic activities. Here, children's participation is understood as a personal and social education and development in relation to their participation in civic activities. Practices that connect to this rationale are divided into two camps. One camp sees children as future citizens, situating children's participation now as a learning process for the future. The other camp positions children as current citizens who, as a minority group, need to be heard in current civic activities. In other words, whereas one camp prepares children for performing their future citizen role, the other camp works for children's social inclusion here and now. Fourthly, the *intergenerationality rationale* deviates from seeing children's participation as being beneficial for children only. Whilst most discourses (e.g. enlightenment, empowerment, citizenship) understand children's participation as being valuable for children only, the intergenerationality rationale stresses the importance of children's participation also being beneficial for adults or for relations between children and adults. For instance, children's participation may encourage adults' self-reflection, generating new insights for the adults and/or for the relationship between adults and children. The difficulty with this rationale is that although the specific outcomes may be achieved, they are not always considered as an actual outcome as such or taken into account.

The short history of children's participation in society has already contributed in many ways. On one hand, it has helped to empower children who now know how to raise and use their voices as active change-makers. On the other hand, adults have learnt to open up for considering these voices seriously. Children's participation in society has been working on putting the postmodern view of childhood into practice and involving children both as citizens-to-be and citizens now. Children's citizen identity

is young, vulnerable, and in full development. The wheel of children's emancipation is turning and expanding. The civil education scholar Marc Jans has highlighted children's increasing emancipation (Jans, 2004). Whereas emancipated children are already part of many family circles, children's emancipation is expanding to other contexts such as schools and organisations dealing with public matters (ibid.). Recent years have shown the emergence of policy and social practices that involve listening to children, consulting children, and children's participation in decision-making (Hill et al., 2004). Although these practices aim for the best, they require critical evaluation and improvement. Thus critical studies have focused on e.g. the meaning of those practices, questioning both their desired and unwanted effects, and who really benefits from them.

Critical discourse has problematised adult–child dialogue by questioning the extent of reciprocity in such meaning-making explorations (e.g. Cooke & Kothari, 2001; Badham 2004; Weil et al. 2005 in Birch et al, 2017). Alison Clark & Barry Percy-Smith argued for the need to consider the complexity and interplay of values and interests in children's participation in local decision-making and everyday social processes when aiming to achieve effective and meaningful children's participation (Clark & Percy-Smith, 2006). Greg Mannion (2007) suggested a relational and spatial reframing of children's participation that is more aligned with the lived experience of children and adults and therefore offers a better understanding of, and new possibilities for, children's participation. This relational dimension starts from children's lives being interdependent with the lives of adults and involves practices of children's participation being influenced by these child–adult relationships. The spatial dimension situates these child–adult relationships on a continuously changing time-scale that depends on a specific context. In other words, the spatial framing takes into account the influence of the spaces and places in which these child–adult relationships occur. This intergenerational view on children's participation is supported by Michael Wyness and his colleagues who stated that children's participatory roles are interdependent with those of adults (Wyness et al., 2004). Marc Jans pointed out the difficult position of the adult's role in practices working on children's participation. He explained that adults need to find a good balance between treating children as equals and at the same time protecting them (Jans, 2004).

Child–Adult Relationships

Building further on Mannion's relational framing of children's partic-ipation (2007), I will now elaborate on studies that have focused on child–adult relationships. As I have mentioned earlier, childhood is not a natural phenomenon but a socially and culturally constructed idea (Ariès, 1962). This means that the way childhood theories and prac-tices have been shaped in the past merely reveal adults' preoccupations and ideologies rather than the interests of children themselves. It also means that in many cases adults have prioritised their own interests and therefore imposed their interests upon children. For centuries and centuries, children have learnt that they must listen to adults and that adults are *better* at making decisions on their behalf[24]. It is true that in some situations, e.g. when young children cannot ensure safe and eth-ical behaviour, the intervention of adults is a necessity. However, there are many other cases in which children can make valuable contributions but where they are deprived of this possibility. Even in cases where the adults interfere with good intentions, adults deprive children of their rights and opportunities. What I am trying to point out, is that for a very long time we have produced and reproduced unequal child–adult power relationships through our social practices. Furthermore, exactly because such unequal child–adult power relationships have been part of our social practices, it is hard to change them.

The following studies show the extent and diversity of studies that have focused on child–adult relationships.

The sociologists Martha Gutman and Ningh de Coninck-Smith have warned of the problems caused by the hyper-specialisation of chil-dren's material and immaterial culture. According to these scholars, such specialisation can systematically exclude the lives of children and adults from one another (Gutman & de Coninck-Smith, 2008). The sociologists Helga Zeiher and Hartmut Zeiher have defined this phenomenon as the "islanding of children" (Zeiher & Zeiher, 1998; Zeiher, 2001). Zeiher &

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This is a generalised statement since there are childhood theories and prac-tices that prioritise children, for instance, Jean-Jacques Rousseau's ideas about *the wild child* in need of liberation from the adults around it (1781), and many child-centred pedagogies.

Zeiher point to the destructive effects of this form of social segregation in modern society (ibid.). A similar stance but in the particular context of the city was expressed by anarchist Collin Ward (1990[1978]) who advocated developing cities in which children and adults could live *together*. He acknowledged the complex and difficult process of negotiation that would accompany (re-)implementing his vision.

In 1975, psychiatrists Chester Pierce and Gail Allen coined "childism" as "the automatic presumption of superiority of any adult over any child; it results in the adult's needs, desires, hopes, and fears taking unquestioned precedence over those of the child." (Pierce & Allen, 1975, p.126). This unbalanced adult–child power relationship perceives children as property or physical creatures instead of intentional agents. "Childism" produces adult "power-over" (Lukes, 2005[1974]) situations in which adults impose their own needs, desires, hopes, and fears instead of those indicated by the children themselves. The education scholar Graeme Tiffany (2014) sees this oppressive "childism" relationship as a structural violence system and instead argues for developing a positive "power to" (VeneKlasen & Miller, 2002) approach that supports children's autonomy and self-determinacy. Tiffany proposes a relationship-based working approach based on mutuality, co-operation, conversation, dialogue, and negotiation (Tiffany, 2014). The political theorist Elisabeth Young-Bruehl (2012) reintroduced the term *childism* for referring to prejudice against children as a group, comparable to racism and sexism. Young-Bruehl stresses the need to develop a better understanding about the motives and cultural forces that drive such prejudice if we are to overcome it. Pierce's & Allen's and Young-Bruehl's ideas about "childism" can be seen as a form of *ageism*—i.e., discrimination on the basis of age.

The theoretical ethicist John Wall used the same term, *childism*, for naming a particular approach that values children's experiences as a basis for developing knowledge that helps to produce a more human culture. This means that Wall defined "childism" as a positive phenomenon in contrast to the negative meaning given by Pierce & Allen and Young-Bruehl. Wall defined "childism" as "the effort to respond to the experiences of children by transforming understanding and practices for all." (Wall, 2010, p.3). Building further on his claim that our current understanding and practice of morality is based on and limited by a traditional adult-centred perspective, Wall argues for taking a child-centred or childism approach to morality. In other words, Wall called for reconceiving morality on the basis of children's experiences.

Furthermore, Loris Malaguzzi—educator and founder of the Reggio Emilia approach—has argued that children show their understanding and express their thoughts and creativity in many different ways compared with the limited way in which adults communicate, i.e. through spoken and written words (Malaguzzi, 1970 from Cagliari et al., 2016). Malaguzzi's Reggio Emilia approach encourages children to explore their environment and express themselves through many *languages* or modes of expression that he called children's "hundred languages", like drawing and sculpting, dance and movement, painting and pretending, free play, modelling, and music (ibid.). Furthermore, the Reggio Emilia approach strives to preserve the originality in children's expressions. For instance, when a child has chosen to express her/his ideas and opinions by means of words, these words are used in the same way they were produced by the child, including the spelling and grammar mistakes.

Roger Hart has been a prominent source for discussing child–adult power relationships in relation to children's participation in society. With his ladder-shaped diagram, Hart addressed various levels of power that children can have when participating. His "Ladder of Young People's Participation" diagram (1992) builds further on the "Ladder of Citizen Participation" developed by Sherry Arnstein in 1969. With his diagram, Hart hoped to develop critical discussions about the various levels of children's involvement depending on how much power they had in the decision-making process. According to Hart, children's participation requires the fulfilment of at least four criteria. Firstly, children need to understand the intentions of the project. Secondly, they need to know who made the decisions concerning their involvement and why. Thirdly, the children need to have a meaningful role (rather than *decorative* role). Fourthly, children volunteer for the project after the project has been made clear to them. Furthermore, the hierarchy in the diagram does not mean that children should always operate on the highest rung of the ladder. According to Hart, "different children at different times might prefer to perform with varying degrees of involvement or responsibility." (Hart, 1992, p. 11). Hart argued that the goal of children's participation is not to get children to act completely on their own but instead to reach a point where children dare to take their own initiatives and ask adults for help in realising these initiatives. Such adult–child collaborations assume that children trust adults; that they know that adults respect their opinions and will not disregard them. Finally, Hart stated that realising children's participation does not only depend on the adults' skills

to support children's initiatives but also on their ability to be receptive and read the subtle indicators of energy in children.

The cultural scholar Flemming Mouritsen has defined different levels of adult influence in children's interaction with their environment: designing for children, designing with children, and children's culture (Mouritsen, 2002). In *designing for children* only the adults design and decide about how children interact with their environment. This is done through adults making decisions about the environment's material shape as well as about how children operate socially in those spaces. In *designing with children*, both the children and the adults have a share in the design of children's environment; in both its social and material production. Finally, *children's culture* is "the expressions of culture that children produce in their own networks" (Mouritsen, 2002, p. 16). This is the state in which children have the most autonomy in the way they interact with their environment. Mouritsen also relates children's culture to "what with an overall term one could call their play culture" (ibid., p. 16). Whilst traditional forms of designing children's furniture, interiors, books, etc. are situated in designing *for* children, most participatory design practices with children are situated in designing *with* children.

> Meaning for My Research Project
> This research project foregrounds children's participation as a means for actualising their democratic citizenship. The project presented here attempts to react to the given range of critiques on participative practices as well as on adult power-based views on children and childhood. The project attempts to explore and practise adult–child relationships which respect and put into practice the basic democratic values of freedom, equality, and justice. The project explores a participatory process in which children's cultures and meanings are in direct negotiation with those of adults.

2.2
Children's Participation in Design

Similarly to my structuring of the first part of this chapter, I want to start discussing the broader context of users' participation in design before zooming in onto children's participation in design and participatory design with children. Thus I will start this second part (2.2) with a general

section on the origin and developments of participation in design followed by a section about the democratic value of Scandinavian participatory design. The third and final section elaborates on participatory design with children: its origin, developments, and critiques.

Participation in Design

Liam J. Bannon and Pelle Ehn (2012) situate the early start of participation in design soon after the First World War with the birth of *Bauhaus*, modern design, and the design object in which the collaboratively and inter-disciplinarily made *Gesamtkunstwerk* embodied socially progressive and democratic values (Bannon & Ehn, 2012). Participation in design mainly flourished during the 1960s and 1970s; a period marked by political and social unrest. Many European citizens demanded an increasing say in decision-making about various aspects of their lives. Citizens participated in collective action around shared interests. Designers also felt the urge to contribute to various social, political, and civil rights movements. These designers started to use their practices as a means to respond to the political situation and work on and with people's participation, hence contributing to the democratic project.

Participatory design emerged from this context. It was one of the first design approaches addressing the users' needs in the design outcome by actively collaborating with them during the design process. The Scandinavian participatory design approach was embraced by the design community who aspired for new design approaches aiming for sustainability in the early 1970s. In his opening speech for the 1971 Design Research Society Conference in Manchester, design researcher Nigel Cross expressed his discontent with how: "professional designers in every field have failed in their assumed responsibility to predict and to design-out the adverse effects of their projects." (Cross, 1972, p.11). Cross pointed to the harmful (side) effects that design could produce and called for developing new design approaches that could deal with the escalating problems of the man-made world. He promoted people's participation in decision-making as a possible direction for developing such new design approaches (ibid.).

Since the 1970s, designers have been increasingly interested in the users for whom they design. Since its entrance, participation in design has developed into distinct approaches (e.g. participatory design,

co-design, user-centred design) each working according to their own ambitions, methods, and contexts. The Scandinavian participatory approach focuses on involving the user 'as a partner' in the design process. In this approach, "people were given more influence and room for initiative in roles where they provide expertise, and participate in the informing, ideating, and conceptualizing activities in the early design phases" (Sanders & Stappers, 2008, p.5). This approach was further developed into a user-centred design approach in the USA. A user-centred design approach understands the user as subject, in which "trained researchers observe and/or interview largely passive users, whose contribution is to perform instructed tasks and/or to give their opinions about product concepts that were generated by other (professional designers)" (ibid., p.5). User-centred design is a design approach in which a professional team focuses on users' needs in an iterative way throughout the product life cycle (Norman & Draper, 1986). In user-centred design, designers generate solutions whilst users are mainly placed in a reactive role (ibid.). This is in contrast to the participatory design and co-design approach that engage users in a more active role. Whilst participatory design and co-design might not differ so much in practice, they have different starting points: participatory design is rooted in the Scandinavian co-operative design tradition and has a strong political emphasis. Co-design does not (need to) have this political starting point. Its basic aim is to support users' active involvement in the design process. Other scholars (i.e. Read et al., 2014) differentiate the Scandinavian approach to participatory design from the North American approach. Whereas the former has an inherent concern for human values (Iversen et al., 2012) and focuses on realising values of democracy, empowerment, and quality of work/life (Ehn, 1990), the latter focuses on the design of a product (Read et al., 2014).

The Democratic Value of Participatory Design

What we call "Participatory Design" was born during the 1970s in Scandinavia as "Co-operative Design"[25]. It developed from the 1970–1973 cooperation between the Norwegian Iron and Metal Workers (NJMF) trade union and the Norwegian Computing Centre in Norway (Ehn & Kyng, 1987). This research project was originally a top-down structure through which the local union aimed to inform and prepare the work-

ers for the design of computer-based planning and control systems in their workplace. During adaptations of the original project set-up, the researchers and local unions started to play a secondary, supportive role in which they provided the workers with resources that enabled them to *act* in their particular situation. Similar projects followed: the DEMOS project (1975–1978) in Sweden, the DUE project (1977–1980) in Denmark, and the Nordic UTOPIA project in Norway, Sweden, and Denmark (1981–1985). These projects contributed to developing the "Co-operative Design methodology" (Bødker et al., 2000) that emphasised the active co-operation between users and designers with respect for people's democratic rights (Ehn, 1993). Typical for participatory design is the concern about the *how* of design. Participatory design does not only strive to improve the quality of the result (outcome) but also aims for quality within the process. This means that participatory design pays attention to developing design methods, structures, and tools that facilitate the involvement of the users in the design process compared with other design disciplines that merely focus on the content or the *what* to design.

The Scandinavian participatory design approach distinguishes itself from other user participation in design approaches by its democratic ambition. Pelle Ehn emphasised that the Scandinavian participatory design approach had the ambition to realise values of democracy, empowerment, and quality of work/life[26] (Ehn, 1990). Jesper Simonsen and Toni Robertson characterised participatory design as a particular design approach that included "equalising power relations, democratic practices, situation-based action, mutual learning and tools and techniques." (Simonsen & Robertson 2012, p. 2). Judith Gregory named three principles that characterised the Scandinavian participatory design approach as showing deep commitments to democracy

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The emerging Scandinavian "Co-operative Design methodology" caught significant attention in North America. Whilst introduced in the USA, the approach was renamed as "Participatory Design" because the word *cooperation* did not fit within the strong separation between workers and managers in the USA. In USA contexts, participatory design was organised as separate sessions for workers and managers instead of direct cooperation between both parties.

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Whereas the early forms of participatory design focused on improving the quality on the work floor (Ehn,1990), more recent development also works on a wider range of issues and life in general (Binder et al., 2015; Bannon & Ehn, 2012).

and democratisation, embracing discussions of values in design and imagined futures, and seeing conflicts and contradictions as resources in design (Gregory, 2003).

Despite the strong focus on democratic values in original participatory design practices, many newly developed participatory design practices no longer pursue this initial democratic ambition. Some researchers have acknowledged and deplored this shift. They have called for the re-politicisation of participatory design by reclaiming its democratic goals (van der Velden, 2014). Other researchers have pointed to the growing interest in participatory design as a highly values-led design approach that promotes values of democracy, quality of work/life, and emancipation (Iversen & Smith, 2012).

Since its establishment in the 1970s as a separate design discipline, participatory design has evolved in many ways when exploring new contexts and scales. Contemporary forms of participatory design deal not so much with issues of 'democracy at work' but rather broader democratic matters of citizenship and public engagement (Binder et al., 2015). The broadening of participatory design from small and closed communities (e.g. the work floor) to a larger scale (e.g. public space and public issues at large) involves a wide range of diverse social groups, including "marginalized publics" (Björgvinsson et al., 2012). The novelty of working with a "plurality of publics" (ibid.) also resulted in the reconfiguration of participatory design approaches. For instance, Erling Björgvinsson and his colleagues (2012) have argued for an agonistic approach (instead of consensus-based decision-making) when involving a diversity of publics, including marginalised publics. Based on their experience of the Malmö Living Labs, they suggested working in an "infrastructuring" way (ibid.) to enable "an open innovation milieu where new constellations, issues and ideas evolve from bottom-up long-term collaborations among diverse stakeholders." (Björgvinsson et al., 2012, p. 127). Joanna Saad-Sulonen argued for developing new methods that transcend short-term participation (in the form of events and workshops) and "staged participation" (Saad-Sulonen, 2014).

Scholars have pointed to the need to reflect critically on the power imbalances within participatory design practices. Such power imbalances include unequal power relationships between stakeholders and designers, between designers and participants, and between stakeholders and participants.

Markus Miessen has warned us about the potential nightmares that institutionalised forms of participatory design practices can generate. He refers to the way that societal institutions, like governments, can misuse participatory design practices as a mechanism for maintaining the institutions' hegemonic power position in spatial design practices (2010). Michael Kaethler and his colleagues have pointed out the difficult position of designers who need to take a critical view on the dominant logic whilst at the same time ensuring that their criticality does not result in a loss of access to and trust from stakeholders (Kaethler et al., 2017). Marc Steen points to the risk of designers prioritising their own ideas and experiences over the users' ideas and experiences (Steen, 2011). Similarly, Ann Light and Yoko Akama have investigated the micro-dynamics in participatory practices aiming to engage people in change-making. They have criticised that research most often reports about the effects of participatory methods only, without uncovering their relation with the facilitator and her/his power therein. Light & Akama argued for considering the stiltedness of participatory methods and instead focusing on the facilitator's influence in directing these projects (Light & Akama, 2012). Tone Bratteteig and Ina Wagner studied decision-making in participatory design practices and disentangled its power relationships. They concluded that different participants have different shares in the decision-making and this share depends on the given design space—i.e., the *space* in which the participants can act/design. They also pointed out that this design space was mainly defined by the organising designers and stakeholders only (Bratteteig & Wagner, 2012).

Participatory Design With Children

Children's involvement in design has developed parallel to adults' participation in design and has received attention since the 1990s when people started to see the economic potential of children as a separate user group (Guha et al., 2005). Children became "an entirely different user population with their own culture, norms, and complexity" (Berman, 1977 in Druin, 2002, p. 1). This change in perspective legitimised a design discipline and methods dedicated to children, enabling design practitioners and researchers to learn to collaborate with children of all ages.

Since the 1990s, children's involvement in design technology has developed into a specialised field, leading to the genesis of *Interaction*

Design and Children (IDC). IDC is an "interdisciplinary international community focusing on the promises and challenges of leveraging technology so as to enable children to participate in nurturing and empowering experiences and bring children's voice and sentiments into this process." (Blikstein & Abrahamson, 2017). Children's participation in design is being used for a diversity of reasons. Developing better design outcomes (Scaife et al., 1997; Druin, 2002) and developing children's empowerment (Read, 2014; Iversen, 2017; Kinula et al., 2017) are the two main reasons for involving children in design. Whereas the first reason typically connects to a co-design approach, the latter is in line with the Scandinavian participatory design approach that pays special attention to values of democracy, empowerment, and quality of work/life (Ehn, 1990). Other typical differences between the co-design and participatory design approaches relate to time and the size of the participant group. Whereas co-design is known for working with smaller groups over longer periods, the participatory design approach typically works with larger groups of children over shorter time periods (Read et al., 2014). Although these may have been distinct differences in initial practices of co-design and participatory design with children, recent developments in Scandinavian participatory design with children also work with smaller groups of children over longer periods of time.

Mike Scaife and Alison Druin were pioneers in developing participatory design methods for involving children. Whereas Scaife's methodology engaged children as informants in the design process, Druin's method aimed to give children a more active role as design partners. In their informant role (Scaife et al., 1997), children are involved at various stages in the design process, namely, those stages in which designers believe they need information from children. Druins "cooperative inquiry" methodology (2002) enabled children and designers to work in close cooperation by involving small groups of children over an extended period of time.

Over the past thirty years, researchers have helped to broaden our knowledge about participatory design with children. Many specialised methodologies have been developed. Current practices of participatory design with children now deal with a broad range of issues from designing new technologies to children's participation in society. They also address different specialised children's groups, e.g. refugee children (Alain, et al., 2018) and children with various disabilities (Schepers et al., 2018)

like visually impaired children (McElligott & van Leeuwen, 2004) and children with autism (Millen et al., 2011).

Whilst many scholars have stressed the advantages of working with children in participatory design, it also involves many challenges. The advantages include children's creativity, unconventional viewpoints, and willingness to share their thoughts (Melonio, 2016). Several researchers have stressed the importance of considering children's individual development when involving them in participatory design processes. They have suggested that designers should take the child participants' development stage—this is, their cognitive, physical, and social/emotional development (Chiasson & Gutwin, 2005) into consideration. More so, designers should adapt their methods for effective collaborations. In order the better to meet children's culture, researchers have used *play* as a resource for reconfiguring their participatory design methods (Kelly et al., 2006; Melonio, 2016; Assis, 2016; Wong & Mulder, 2016; Schepers, et al., 2016; Vaneycken, 2016 & 2017). These scholars understand children's play as an intrinsic part of their culture (Mouritsen, 2002) and therefore as a suitable approach for developing a closer connection to children's culture (Vaneycken, 2017). Designers in general have explored various ways for involving children's play in their methods according to different views on and approaches to play, (e.g. games, free play). Ethical challenges have prompted questions related to e.g. the time child participants put into the process (Read & Fredrikson, 2011) and whether the child participants are given full information about their involvement (Frauenberger et al., 2015).

Power in Participatory Design With Children

The literature on participatory design with children also gives special attention to issues of power. Many studies address both positive and negative expressions of power. In other words, some studies focus on participatory design as a means for children's empowerment whereas others address issues of power imbalances.

On one hand, children's participation in design is a form of empowerment in itself. Before the 1990s, children's voices were most often absent in design processes but represented by parents, child-carers, and other child experts who decided what was best for children. The introduction of postmodern views on childhood and children's rights movements

have gradually developed into the emergence of practices that directly affect children's participation in society, including children's participation in design. Children's participation in design enables children to have a say—to various degrees—in how objects, spaces, systems, etc. are designed so as to suit their needs better. Thus children's participation in design can be seen as a means for their empowerment and a big step forward for children's emancipation. In addition, children's participation in participatory design pays special attention to children's empowerment in the particular context and set-up in which they are involved (Iversen et al., 2017). HCI researchers Marianne Kinnula and her colleagues remarked that little attention has been paid to discussing the meaning of empowerment in participatory design with children. They identified five views on empowerment: a management, a critical, a democratic, a functional, and an educational view (Kinnula et al., 2017). With this categorisation, Kinnula and her colleagues called designers to make a conscious choice of the kinds of empowerment they want to work on and what this means in relation to the context of our contemporary society.

On the other hand, scholars have addressed the negative aspects of power in participatory design with children where power imbalances are (re)produced. A set of studies focuses on power imbalances between child participants and adult designers due to children's roles. Similarly to Roger Hart's "Ladder of young people's participation" (1992) addressing different levels of power in decision-making, the different approaches to participatory design with children give the child participants a more or less prominent role in decision-making. The different roles themselves are not so much the cause of the problem as long as they are relevant to the situation and made transparent to the participants and the outside world. The key roles that have so far been addressed are: user role, tester role, informant role (Scaife et al., 1997), design partner role (Druin, 2002), co-researcher role (van Doorn et al., 2014), and protagonist role (Iversen et al., 2017). The list presented ranges from owning little to owning much agency. For instance, children in an informant role (Scaife et al., 1997) have less agency in decision-making than children in a design partner role (Druin, 2002). Building further on the Scandinavian and political approach to participatory design, HCI researcher Ole Sejer Iversen and his colleagues proposed a "protagonist role" (Iversen et al. 2017). Their approach does not only aim to affect children and adults working together towards a product output but enhances the insights, design skills, and the reflective thinking capabilities of the child participants.

With the protagonist role, Iversen and his colleagues aim to empower children to shape technology development and to reflect critically on the role of technology in their practices (ibid.). Iversen and his colleagues suggest the adoption of a protagonist role through engaging children in creative design and practical activities. HCI researchers Marianne Kinnula and Netta Iivari support the protagonist role but regret the absence of literature exploring how designers can help children to adopt a protagonist role. Kinnula's & Iivari's study examines the meaning of the protagonist role from the perspective of the children participating. Their study argues for educating children in participation, design, and technology. Furthermore, Kinnula & Iivari argue for the importance of appreciating children's own perspectives and experiences in participatory design but remark that this has remained less studied so far (Kinnula & Iivari, 2018). Finally, Kinnula & Iivari acknowledge that the adoption of a protagonist role involves difficulties and challenges.

The issue of unequal power relationships between children and adult members of the design team has also been addressed by e.g. Druin, 1999; Read et al., 2002; Muller, 2003; Kam et al., 2006; Vaajakallio, 2012; McNally et al., 2016; Pitt & Davies, 2017. HCI researcher Michael Muller understands designers and users as distinct groups each having their own worlds/spaces. According to Muller, this separation and their differences obstruct their reciprocal understanding. In order to resolve forthcoming power differences, he proposes approaching participatory design practices as a "third space"—an in-between space in which designers and users share attributes of both their worlds/spaces. Muller promotes this third space as a hybrid and fertile environment in which both groups combine their diverse knowledge into new insights and plans for action (Muller, 2003). Furthermore, the introduction of this in-between space that is unfamiliar to both groups enables them to express themselves freely and participate in an equal position, hence reducing the power imbalance. Kirsikka Vaajakallio pointed to power imbalances due to the fact that methods are mainly selected or designed by adult design researchers beforehand (Vaajakallio, 2012). Also Matthew Kam and his colleagues have argued that designers and design researchers should work on more equal child–adult relationships that are qualitatively different from traditional teacher-student relationships. They suggested enrolling local adults and children as facilitators (Kam et al., 2006). HCI researcher Janet Read and her colleagues have unpacked different levels of participation between the different participant categories in

participatory design with children (Read et al., 2002). Read et al. developed the "IBF participatory continuum model" for evaluating the level of participation of child and adult participants before and during the participatory process. This model defines three modes of participatory design: informed, balanced, and facilitated. In the *informed* mode, the child participant (domain expert) informs the design whereas the adult design expert realises the ideas. In the *balanced* mode, both categories have an equal partnership in informing and realising the design. In the *facilitated* mode, the child participant (domain expert) informs and realises the design whereas the adult designer has a facilitating role (ibid.). In addition, Read et al. identified four variables that affect these different levels of participation: the project environment, the skills of the participants, subject knowledge, and personal security. In another study, Read and her colleagues argued that few projects have considered how children choose to participate and how their ideas are included and represented (Read et al., 2014). Therefore, they developed the "TRAck method" (short for tracking, representing, and acknowledging) by means of which designers can make responsible choices when working with big groups of child participants producing a multitude of ideas. The method also helps to clarify to the child participants how their ideas are being used in the design process. Although the "TRAck method" (ibid.) offers transparency to the children, it does not involve the children in decision-making about how their ideas are used. In other words, the decision-making remains exclusively the responsibility of the adult participants.

Another track in literature deals with power differences amongst child participants. CCI researcher Maarten Van Mechelen and his colleagues (2015) have explored the meanings and challenges of these power relationships and the intragroup dynamics they produce. They identified six challenging intragroup dynamics the facilitator needs to balance when aiming for efficient cooperation in the group: groupthink, laughing out loud, free riding, unequal power, apart together, and destructive conflict (Van Mechelen et al., 2015). Van Mechelen et al. also developed a framework that supports the child participants' learning to work in a team.

Meaning for My Research Project
The research project foregrounds participatory design as a means for developing democracy, empowerment, and quality of work/ life (Ehn, 1990). However, the studies referred to above show that many participatory design practices involving children aim

at a democratic outcome (concerning a specific issue in society) but they most often ignore producing this outcome through democratic child–adult relationships and interactions that build on shared freedom, equality, and justice. The project attempts to explore how designers can support actualising their participatory design practices as a democratic process by actualising processes based on democratic child–adult relationships and interactions.

2.3
Ambiguity as a Resource for Democratising Participatory Practice

In the previous chapter, I briefly introduced how, in my fieldwork, I explored openness in my participatory design approach. Openness was used as both a concept and a method. As a concept, I aimed to *open up* the sole power the designer/facilitator has in guiding—hence influencing—practices that affect children's participation in society. As a method, I aimed to explore how *openness in the interpretation* of the designer's predefined plans (materialised in the workshop structure) can be used as a means for children's appropriation of this workshop structure, hence strengthening their active decision-making in the process and working on the democratisation of this process. Thus, in the third and last part of this contextualisation chapter, I will focus on ambiguity. Although I will start with a general introduction to ambiguity, the core aim of this part is to explain and discuss the virtues of ambiguity for increasing children's personal engagement in and appropriation of predefined structures, and the empowering effects of this engagement and appropriation.

Introducing Ambiguity

Ambiguity is "the quality of being open to more than one interpretation; inexactness" (Lexico.com, 2019). The word originates from Latin *ambi* (both ways) and *agere* (to drive), from *ambiguus* (doubtful) and *ambigere* (waver, go around). The Flemish word for ambiguity, *dubbelzinnig*, is literally translated as double (*dubbel*) meanings (*zinnig*). Ambiguity relates to pluralism: a condition or system in which two or more states, groups, principles, sources of authority, etc. coexist (Lexico.com, 2019).

Ambiguity contains and maintains many meanings. In such plurality, there is no hierarchy of meaning but all meanings are plausible and treated with equal importance. Therefore, ambiguity also links with equivocality. The multi, the many, and the plural in ambiguity create diversity but may at the same time also cause disorder, doubt, and uncertainty when given equal weight. It is not uncommon that uncertainty, as an aspect of ambiguity, is perceived as something uncomfortable.

Although the everyday world itself is inherently ambiguous—i.e., most things in our everyday surroundings have multiple possible meanings—people experience ambiguity when they consciously confront several meanings. This means that ambiguity is not a specific character of something (e.g. an object, system, situation) but emerges when people interpret the object, system, situation, etc. In other words, experiencing ambiguity is related to interpretative processes (Gaver et al, 2003). Psychologist Stanley Budner defined three criteria that can help to experience ambiguity consciously: novelty, complexity, and insolubility. By *novelty*, Budner means situations in which people are exposed to *new* aspects and have no preconceived meaning to rely on for interpreting these new aspects. By *complexity*, he means a *complex* situation in which people need to consider many potential meanings when they interpret the situation at hand. Finally, *insolubility* deals with situations in which people are confronted with *contradictory* meanings when they interpret the situation at hand (Budner, 1962).

At an individual level, people tolerate ambiguity in different ways. "Ambiguity tolerance–intolerance" is a concept developed in psychology in the 1950s (Frenkel-Brunswick, 1949). It describes how people experience ambiguity. At one end of the spectrum, there are tolerant individuals who are open to ambiguous matters. This means that those individuals have the tendency to experience ambiguous situations as desirable. At the other end, we find ambiguity intolerant individuals who consider ambiguity as a threat. When it comes to children, they are usually not yet so culturally conditioned as adults are and therefore more open to interpreting things in an unconventional way. In addition, children's cognitive capacity develops with age, meaning that they may not rely on the same contexts as those used by adults when interpreting an object, place, or situation. As a result, children and adults may produce different meanings regarding the same object, place, or situation.

Just as some people are more open to ambiguity than others, some cultures are more open to ambiguity than others. At the same time, a cer-

tain culture may be more or less open to ambiguity depending on their state of affairs at a certain period in time. For instance, a lot of studies produced in the West focus on reducing ambiguity or dealing with its uncertainty. However, according to the political theorist William Connolly, postmodern Western society was more open to ambiguity than the era of modernity. The era of modernity, starting with 'the death of God', had to deal with the absence of a central source of meaning. The uncertainty caused by this resulted in the desire for human control, hence averting ambiguity (Connolly, 1989). Postmodern times and post-structuralism started to interrogate the binary opposites that constituted modern structures and became more open to ambiguity (Connolly, 1989). Today, in 2020, we are coping with rapid changes on a global scale. People face a complex world that is hard to understand and control. As a consequence, many individuals are coping with fear and anxiety (Denys, 1019.) and seeking a stable structure like the "safety utopia" (Boutellier, 2002) that offers stability. In line with this, we witness the emergence of "helicopter parents" (Ginott, 1969) who fear "stranger danger" and practise risk aversion (Gill, 2007). At the same time, there is a broader unhappiness about the way society is being organised.

In line with those few studies that address ambiguity as a constructive quality (Kris & Kaplan, 1953; Meyer, 1979[1956]; Eco, 1989[1962]; de Certeau, 1984; Connolly, 1987; Gaver et al., 2003; van Leeuwen & Gielen, 2016; Kaethler et al., 2017), this thesis builds upon positive views of ambiguity. In the subsequent section, I will therefore focus on studies that understand ambiguity as a resource, or more specifically, as a resource for personal engagement, empowerment, and democratic development.

Ambiguity as a Resource for Empowerment

In *The Practice of Everyday Life* (1984), Michel de Certeau examined various ways in which individuals appropriate formal structures of mass culture according to their personal values, interests, and backgrounds. He understands such personal appropriations as a form of agency whereby individuals subvert dominant views and practices. With his study, de Certeau prompts us to reconsider consumers' status and their creative ability. Whereas consumers are often seen as weak actors without a stake in the creative process, de Certeau understands consumers as secondary producers who recreate when interpreting and

using the initial designed object, system, space, or structure according to their own meanings (e.g. an urban street plan, a cooking recipe, or a story from a book). de Certeau pointed to the empowerment and agency of consumers/users resulting from creatively interpreting/appropriating externally designed structures. de Certeau only explicitly refers to ambiguity when reflecting, in the introduction to his book, on the anecdote about how indigenous Indians subverted the rules imposed by the Spanish colonisers. He stated that "To a lesser degree, a similar ambiguity creeps into our societies through the use made by the 'common people' of the culture disseminated and imposed by the elites producing the language." (de Certeau, 1984, p. xiii).

For a long time, artists and art scholars have explored the conceptual potentials and aesthetic values of ambiguity. Some scholars consider ambiguity as an important resource for the perceiver's active participation in an artwork (Kris & Kaplan, 1953; Meyer, 1979[1956]; Eco, 1989[1962]). In the context of artistic writing, Abraham Kaplan and Ernst Kris have praised ambiguity for being "the instrument by which a content is 'made' poetic" (Kris & Kaplan, 1953, p. 259), involving the reader in a creative process. Similarly, but then in the context of music, Leonard Meyer understands ambiguity as an important affective device that enables the listeners' active participation (Meyer, 1979[1956]).

With *The Open Work* (1989[1962]), Umberto Eco has contributed an important study about the role of openness in music, literature, and performative and visual arts. Eco wrote his study at the end of the 1950s, at a time when musicians, writers, performers, and visual artists were starting to explore ambiguity in their works. According to Eco, the quality of openness in an artwork consists in the way it opens different options of perception and meaning that challenge the perceiver to enter into an active process of reception (Krieger, 2018). The concept of openness goes beyond the idea that a work of art has only one definitive interpretation and that this meaning is defined by the *creator* alone. Eco states that every work of art can be read in infinite ways and that the reading depends on the state of mind and perspective of the reader. Furthermore, the reader/ viewer/listener perceives a certain work of art differently every time, depending on her/his emotional and physical state and her/his political world view. Besides an artwork being open in its interpretation, Eco distinguishes a second type of open artwork which is open in its structural sense. Here he refers to works of art in which artists first create artistic bits and pieces and subsequently invite the audience to take an active

role in assembling those bits and pieces into a new, unique plan/script to be created/performed. In both types of openness, Eco understands an open artwork as a "work in movement" and a "work in progress". Furthermore, Eco states that although an open artwork may seem random and unplanned at first, the artist does arrange and plan the open artwork in a conscious and caring way. This means that the artist intentionally plans for openness in her/his artwork and for involving the reader/viewer/listener. It also means that the artist requires specific artistic skills for creating an open artwork.

The art-based ideas of Kris & Kaplan (1953), Meyer (1979[1956), and Eco (1989[1962]) align with de Certeau's idea about ambiguity enabling *creative* consumption. This means that they all understand consumption as yet another form of production. For de Certeau, ambiguity can result in a "secondary production hidden in the process of its utilization" (de Certeau, 1984, p. xiii) that activates the users' creative and political agency in reconfiguring society. For Eco, openness can result in the art consumer having a valuable stake in the making and meaning of a work of art (Eco, 1989[1962]). Both authors pointed to the empowering effects of ambiguity and situate the user's agency in the interpretation process of the initial structure rather than in the original making process.

Unlike in art, design initially had little positive interest in ambiguity. For a long time, design has been (and still is to a high degree) perceived as a means for creating functional objects, spaces, and systems facilitating people's work at home and in professional contexts. Such functionality orientated designs are often used for a specific purpose and therefore they had to convey explicit communication of specific meanings. In other words, ambiguity is seen as a *problem* which has to be reduced in functionality orientated design (Sengers & Gaver, 2006).

However, despite the intention to produce designs that communicate single meanings, discrepancies occur between the designer's intentions and the users' interpretations (Suchman, 1987). Gaver et al. explained that ambiguity is consciously experienced when users interpret the designed artefact or system in other ways than that intended by the designer. Aversity towards ambiguity in design is questioned with the introduction of new design contexts like domestic and public environments (e.g. the emergence of designing computer technology for domestic and public environments). In those new design contexts, there is less need for explicit interpretation because design is here primarily

concerned with responding to people's individual and personal desires, tastes, and situations. In other words, the same designed artefact should fit in with a diversity of personalities and therefore be open to a diversity of interpretations. Thus designing for these new contexts—domestic and public environments—opened up for seeing ambiguity in a new and more positive light.

In 2003, HCI researchers William Gaver, Jacob Beaver, and Steve Benford called for a more positive relation between design and ambiguity. They confirmed that ambiguity or multiple and potentially competing interpretations can fruitfully co-exist in HCI artefacts/systems developed for domestic and public environments. Moreover, they stated that ambiguity can be a resource in design. Gaver and his colleagues pointed to the value of ambiguity for both users and designers. Firstly, when it comes to the value of ambiguity for users, Gaver et al. have shown that ambiguity enables users to enjoy personal engagement with the designed artefact/system. Ambiguity opening up for many interpretations, multiple uses, and plural experiences of the designed artefact/ system enables users to define their own meaning/use/experience in contrast to the conventional meaning/use/experience prescribed by the designer alone (Sengers & Gaver, 2006). As a result, users gain a relative amount of freedom but at the same time they are also expected to be more engaged and take responsibility for their personal meaning/use/experience. Secondly, when it comes to the value of ambiguity for designers, ambiguity can help them to develop understanding of the many *other* ways in which their designed artefacts/systems are understood, used, and find new roles in the lives of individuals and their communities (Sengers & Gaver, 2006). In other words, ambiguity enables designers to understand how their design can be seen/used/experienced in many other ways than the one/s they have planned for.

Gaver et al. unpacked the positive effects of ambiguity by identifying three broad categories of ambiguity in design and analysing their effects. These three broad categories are: ambiguity of information, ambiguity of relationship, and ambiguity of context (Gaver et al., 2003). *Ambiguity of information* refers to situations when ambiguity emerges due to uncertainty caused by the designed artefact itself—that is, when the user interprets the information broadcast by the designed artefact itself. *Ambiguity of relationship* refers to situations when ambiguity emerges due to uncertainty caused by the user's relationship to the designed artefact—that is, when the user interprets her/his relationship to the

designed artefact. Finally, *ambiguity of context* refers to situations when ambiguity emerges due to uncertainty caused by the context or discourse in which the designed artefact is understood—i.e., when the user interprets the designed artefact according to certain contexts/discourses. Gaver et al. used these three categories as a framework for developing in-depth insights about the positive effects of ambiguity for both HCI users and designers. These insights stated that ambiguity of information impels users to question the truth of a situation. Ambiguity of relationship encourages users to consider new beliefs and values, and ultimately reflect on their own attitudes, and ambiguity of context enables users to question the discourses surrounding technological genres of HCI design and consequently allows them to expand, bridge, or reject them depending on how they see things (Gaver et al., 2003).

Furthermore, Gaver et al. pointed out the limitations of ambiguity. On one hand, they warned that ambiguity is not suitable when designing for safety and well-defined tasks that require clarity and one sole meaning. On the other hand, they stressed that ambiguity cannot be used as an excuse for poorly designed artefacts that only create confusion or frustration and are meaningless (ibid.).

Since 2003, Gaver et al.'s ideas promoting ambiguity as a resource in design have been supported and deepened in human-computer interaction design (Aoki & Woodruff, 2005; Boehner & Hancock, 2006; Gaver & Sengers, 2006) and more recently also by other design fields/domains (van Leeuwen & Gielen, 2016; Hu, 2013; Kaethler et al., 2017).

Child culture design researchers Lieselotte van Leeuwen and Mathieu Gielen (2016) build on Gaver et al. (2003) and Winnicott (1971) when proposing ambiguity as a powerful design virtue when designing objects and environments for children's play that enable children's agency. van Leeuwen & Gielen identified two different design attitudes each having different effects on children's agency: outside-in and inside-out (van Leeuwen & Gielen, 2016). With an *outside-in approach*, the authors refer to the way designers create objects/environments for children's play according to a prevalent cultural meaning. Such objects/environments tend to prescribe particular ways of acting and thinking for children; prescriptions that follow an adult-defined way of initiating children into a culture, time and society. With an *inside-out approach*, the authors refer to the way designers create ambiguous objects/environments that trigger children's free play, hence support children in their

personal search for potential engagements with the world. The authors conclude that ambiguously designed objects/environments strengthen children to become authors of their own development and makers of their own environments.

The well-known contemporary human-centred design company IDEO also supports the value of working with ambiguity. For them, an ambiguous approach means that designers start from the uncomfortable position of not knowing the answer to the problem they are hoping to solve (Hu, 2013). For IDEO, uncertainty enables designers to open up to creativity and to producing unexpected solutions. Thus they see ambiguity as key for producing innovation. The main elements of IDEO's ambiguous design approach are: working in multidisciplinary teams, including the users' perspective in understanding the problem, and making everything tangible (ibid.). The first two strategies, involving people from widely different backgrounds, offer a plurality of perspectives in the design process.

Design researchers Michael Kaethler, Seppe De Blust, and Tim Devos (2017) highlighted the difficult position of participatory designers working in neoliberal settings. Whilst on one hand designers need to take a critical stance in order to avoid reproducing the dominant logic, on the other hand, this critical attitude may not always be appreciated by stakeholders and can put them in a difficult position. The Kaethler et al. proposal builds on Eric M. Eisenberg's theory of strategic ambiguity as a resource for negotiating a balance between access, trust, and criticality when participatory designers and stakeholders collaborate on participatory design projects situated in neoliberal cities.

Furthermore, during the past years, there has been a growing interest in design for concepts related to ambiguity, i.e. uncertainty (Huybrechts et al., 2014) and vagueness (Eriksson & Berglin, 2016).

Liesbeth Huybrechts and her colleagues (2014) have stated that although the term *participation* has been used in a wide range of meanings—ranging from simple public interviews to more in-depth projects—a recent wave of artists and designers have advocated profound collaborative projects between users and experts from various disciplines; collaborations in which users contribute to content, shape, and structural adjustments. Huybrechts et al. argued that such trans-disciplinary collaborations can initiate new creative ways of collaborating. They call artists and designers to leave their conventional roles and dare to engage with these risky collaborations and its negotiations. According

to Huybrechts and her colleagues, a "risky" confrontation of differences between disciplines and perspectives leads to interesting participatory practices, methods and outcomes.

According to design researchers Kajsa Eriksson and Lena Berglin, the design of public spaces should allow for (many) individual interpretations of use since they are accessible for everyone. Therefore, Eriksson & Berglin proposed "vagueness" as a constructive approach for designing public space that strives for diversity, self-organisation, and surprise (2016). Their approach builds on "fluid design" (Brandes, 2009), a non-authoritative and emphatic design that allows for a variety of interpretations and possibilities (Eriksson & Berglin, 2016). A *fluid design process* allows for a variety of interpretations and possibilities; it suggests options instead of prescribing them. Although Eriksson's & Berglin's vagueness approach does not explicitly name ambiguity, it is open to a variety of interpretations and possibilities, praising diversity and embracing uncertainty as a potential.

Meaning for My Research Project

The selection of studies discussed in this part (2.3) show that ambiguity—the quality of simultaneously being open to more than one meaning (Lexico.com, 2009)—enables people to appropriate existing structures according to their personal values and interest (Eco, 1989[1962]; de Certeau, 1984; Gaver et al., 2003). Such personal appropriation of given structures can result in empowerment and power distribution. In addition, political scholars like William E. Connolly and Chantal Mouffe have highlighted a plurality of voices, with respect to agonism, as a means to develop democracy corresponding to the complexity of our current society consisting of a diversity of publics. Building further on these studies, this research project aims to investigate whether ambiguity can also be a resource for children's participation in society by actualising democratic child–adult relationships in the processes involved. Therefore, the question driving the research project is: "How can ambiguity be a resource for actualising democratic processes in participatory design practices with children?" and its specific subquestions (see page 44).

2.4
Chapter Summary

In the second chapter of this thesis, I have laid out the background of my research study. I started discussing the current state of democracy in many European nations. On one hand, I mentioned the efforts that aim to make democracy more inclusive by opening up for new emerging publics (i.e. children). On the other hand, the current crisis in democracy falls short in actualising values of freedom, equality, and justice, resulting in an urgent call for democratising democracy. Recent years have shown an increasing interest and growth in participatory democracy aiming to involve citizen voices more directly in defining how we live together. Bottom-up and top-down practices have been initiated; they have been both praised and criticised. New developments in participatory democracy constitute one reason for the emergence of children's participation in society since the 1990s. Although children's participation in society has brought great improvement for children's well-being and for society at large, there are critical voices that advocate even more improvement, with even more and better practices furthering children's participation in society. In this thesis, I critique the way that many practices working on children's participation in society while focusing on producing a democratic outcome fail to realise democratic values in their process. Thus this thesis focuses on improving the democratic project by emphasising already established democratic values—freedom, equality, and justice—in the processes working on children's participation in society.

Participatory design offers a good context for investigating the micro-politics of such processes. Instead of focusing on designing an outcome only, participatory design has a particular interest in supporting how a diversity of actors can work in concert. In other words, whereas most conventional design approaches focus on designing the *what*, participatory design focuses on the *how* of designing. In addition, the Scandinavian tradition of participatory design has a special interest in actualising democratic values, empowerment, and quality of work/life (Ehn, 1990). Design has opened up for the involvement of users since the 1970s-1980s in order to develop design outcomes that better suit users' needs, hence producing more sustainable design. From the 1990s, more and more attention has been given to also involving children in design processes. Participatory design practices involving children have meant a lot for children's empowerment and participation

in society. Nevertheless, these practices also deal with power issues. Whereas many studies have addressed issues of power, I have identified a lack of research when it comes to child–adult power imbalances in the processes that drive these practices.

In the third part in this chapter, I have introduced ambiguity as the quality of being open to the simultaneous coexistence of several meanings. I explained that, in general, our Western culture typically rejects ambiguity. We prefer clarity and efficiency over uncertainty and chaos. Despite this general tendency, the level of adversity changes over time. The current globalisation and democratic crisis in many European nations creates many uncertainties and makes us seek for solutions and certainties. In contrast to the mentality that sees ambiguity as a problem that needs to be avoided or reduced, a minority of studies proclaim the constructive effects of ambiguity. For a very long time, the arts have explored the conceptual and aesthetic qualities of ambiguity. From the 1960s, many artists started to use ambiguity as a means to involve the art perceiver (the audience) in an active way in the making of the art work. These studies have emphasised the empowering effect of ambiguity for perceivers and consumers. Whereas design has shown adverse attitudes towards ambiguity for a very long time, the expansion to designing for domestic and public environments started to discover the potential of ambiguity. Especially William Gaver and his colleagues highlighted ambiguity as a resource in design (2003). With their study, they have shown that ambiguity can enable the user's personal involvement when s/he interprets and uses the designed artefact/system. In addition, ambiguity can help designers to become aware about the many other ways in which their design can be interpreted and used. I ended this chapter by explaining the framework, their ambiguity categorisation, Gaver et al. used for developing their insights.

Research Through Design Interventions

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This thesis pivots around the question of how ambiguity can be a resource for actualising a democratic process in participatory design practices with children. Its particular focus is on producing knowledge about the role of the designer therein. Drawing upon existing theories (chapter 2) and on Halse & Boffi's "design interventions" (2016), I have developed a specific research approach and methodology, *research through design interventions,* (chapter 3) in order to analyse my empirical material (chapter 4).

  In this third chapter, I will first explain how certain research traditions have informed my *research through design interventions*[27] approach, for which "research through design" (Frayling, 1993) and "design anthropology" (Gunn et al., 2013; Smith, 2016) formed two major influences (3.1). This methodology chapter mainly aims to describe, situate, and argue for the 3-step research methodology, *workshops—memorisation—analysis*, that I have developed for conducting my research (3.2).

3.1
A Research Through Design
Interventions Approach

Research Through Design

My specific research question departs from and is anchored in my practice: a participatory design practice with children and the *Public Play* project in particular. This approach fits into the young tradition of arts-based research[28] (AbR). Arts-based research is a research domain in which researchers use art-making—whether visual arts, performative arts, music or design—as a basis for producing knowledge. The *Handbook of the Arts in Qualitative Research* defines arts-based research as "the systematic use of the artistic process, the actual making of artistic

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The concept "design interventions" was coined by Joachim Halse and Laura Boffi (2016) who understand it as a form of inquiry enabling researchers to deal with "phenomena that are not very coherent, barely possible, almost unthinkable and consistently under-specified because they are still in the process of being conceptually and physically articulated" (Halse & Boffi, 2016, p. 89).

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Arts-based research is also called *artistic research* in analogy with the term *scientific research*.

expressions in all of the different forms of the arts, as a primary way of understanding and examining experience by both researchers and the people that they involve in their studies." (Knowles & Cole, 2008, p.29). Arts-based research distinguishes itself from other research domains by its particular way of knowledge production through interweaving a practice of art-making with existing theories. This approach is based on constructing, deconstructing, and reconstructing new relations between practice and theory. Because arts-based research is a fairly new domain, it has given pioneering arts-based researchers a fair amount of freedom to create the foundations of this domain whilst at the same time challenging them to develop research methodologies that produce solid and credible outcomes. Consequently, many scholars have focused on the ways in which knowledge is produced in arts-based research. My research methodology can be seen as one such attempt to develop arts-based research further and to establish it as a particular research domain on the research map.

My particular approach to arts-based research aligns with "research through design" (Frayling, 1993). This "research through design" (ibid.) uses design practice as a means to understand the world, which might be design itself. As additional information, Christopher Frayling proposed two other categories of arts-based research: "research into design" considers design as the subject of inquiry by treating it as an object in the world and "research for design" treats design as the subject of inquiry (like "research into design") but with the goal of producing design that transforms design (ibid.)[29]. Frayling's categorisation has been widely used to situate arts-based research practices and has encouraged many other researchers to continue discussing different ways of doing research in relation to a practice of art/design-making, e.g. Alain Findeli (2001), Daniel Fallman (2007), Stephen Scrivener (2009), and Henk Borgdorff (2009).

The particularity of my "research through design" (Frayling, 1993) approach has been its ability to produce knowledge about participatory design, children's participation in society, and democracy,

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[29] Although Frayling's original categorisation includes art: "research into art and design", "research through art and design", and "research for art and design" (1993), here I focused on *design* only in line with the context of this thesis.

whilst at the same time developing or *constructing* a pragmatic approach (the *ambiguity approach*) that puts these new insights into practice. This *constructive* aspect has been highlighted by Ilpo Koskinen and his colleagues (2011) in their "constructive design research" which they have defined as "design research in which constructions—be it a product, system, space, or media—takes centre place and becomes the key means in constructing knowledge. Typically, this 'thing' in the middle is a prototype (…) However, it can also be a scenario, a mock-up, or just a detailed concept that could be constructed." (Koskinen et al., 2011, p. 5–6). Koskinen and his colleagues suggest three different ways of carrying out "constructive design research": in a laboratory, in the field, or in a showroom (ibid.). By a *laboratory*, they mean a constructive design research in which the subject matter is taken out of its own environment and subjected to experimentation in a controlled environment (ibid.). By a *field*, they mean constructive design research in which the subject matter is studied in its very own context. The field allows for inquiring about subject matter in real-life situations. Finally, by a *showroom*, they mean constructive design research in which the subject matter is studied within a design or art context. Here the research prototype, scenario, concept, etc. is presented in shop windows, exhibitions, galleries, etc. to provoke reaction and conversation. In this thesis, I have conducted my research in the "field" (Koskinen et al., 2011) by working with children in real-life situations and the particularities of their context. More specifically, I have studied child–adult interactions in self-organised and self-facilitated participatory design workshops with children.

Having introduced *the field* I will now move on to explain how I conducted my *fieldwork* and my particular approach to "design interventions" (Halse & Boffi, 2016).

Design Interventions

In order to produce knowledge about my research question and simultaneously construct an approach that enables me to practise these insights, I experimented with ambiguity in my fieldwork. More specifically, I have tested various ways of introducing openness into the workshop structure and studied its effects. The performative act of the design researcher intervening in the fieldwork can be understood as a "design intervention" (Halse & Boffi, 2016). Joachim Halse and Laura Boffi defined "design

interventions" (ibid.) as a form of inquiry that enables researchers to deal with "phenomena that are not very coherent, barely possible, almost unthinkable and consistently under-specified because they are still in the process of being conceptually and physically articulated" (Halse & Boffi, 2016, p. 89). They proposed "design interventions" as a method for design anthropology (2016).

Design anthropology is an emerging transdisciplinary field blurring distinctions between social science and "research through design" (Frayling, 1993); between anthropology and design. It is a creative discipline that can actively move between positions of description and actions (Gunn et al., 2010). In design anthropology, researchers "follow dynamic situations and social relations and are concerned with how people perceive, create, and transform their environments through their everyday activities" (Gunn, et al., 2013). The core distinction between anthropology and design anthropology rests upon how things are studied. Whilst anthropological methods (like ethnography) study a particular group in their everyday life practice, design anthropology uses methods that focus on creating—thus, designing—a specific set-up in which the group's everyday life practice is studied. The way the group adjusts their everyday life practice to this specifically constructed set-up may also be studied. In other words, an anthropologist enters a certain culture and observes, interviews, etc. how the group would *normally* act and interact, whilst a design anthropologist enters a certain culture and intervenes in the way groups would *normally* act and interact. Thus, whereas design anthropology studies situations that may be new to the group, classic anthropology is restricted to studying the group's habitual situations—i.e., their current habits and how they are related to the past.

A core quality of design anthropology is its ability to engage actively with the future of a certain culture. Design anthropological inquiries do not only focus on investigating the social happening as to *what is* (as anthropology does) but it also inquires *what could be* (as design does) (Halse & Boffi, 2016). Thus design anthropology introduces fiction, imagination, and speculation into the social set-up as it is. It combines present and future, which enables design anthropologists to inquire how possible futures emerge from the *here* and *now*. This also means that design anthropology does not see the future as a separate space or time but approaches the future as a future-making related to the present and the past. The future is continuously being shaped through many, often

conflicting, futures that are embedded in the past and present narratives, objects, and practices of our daily lives (Kjaersgaard et al., 2016).

Researching according to design anthropology principles enabled me on one hand to develop democratic child–adult interactions in participatory design practice whilst, on the other hand, studying this development in its stage of becoming. Thus by researching through "design interventions" (Halse & Boffi, 2016), I as a researcher was able to research what is still in the state of becoming. It also enabled me to have an active designer role in the research project and more specifically to query the effects of openness in my participatory design approach whilst being able to *control* this openness to a certain extent.

Research With Children

A third particularity about the way I have organised my research relates to the way in which I worked with children in my research. Although I did not involve the children in a "researcher role" (van Doorn, 2016), they did have an active role in my research since they took part in my participatory design practice, the fieldwork itself. My research with children builds on the view that children are competent meaning-makers and explorers of their environment and situations and that they can play an active role in reflecting on their everyday life situation.

Children's active involvement in research also meant that I had to adjust my research methods for doing fieldwork. These adjustments mainly consisted of the particular way I organised the participant observations as *multiple-source observations* and set up interviews as *sideways conversations*. I will explain these methods in the next section (Step 1: workshops). I also combined observation with conversation for dealing with discrepancies between what children say (words) and to what they show through their actions and body language, or discrepancies between what children feel they *have* to say versus what they themselves would like to say. Again, I will further elaborate on such method adjustments when discussing my fieldwork methods in the section called "Step 1: workshops" in 3.2.

Doing research with children obviously prompts certain ethical considerations and responsibilities the researcher needs to have and is required to undertake. In my case this consisted of making sure that the children were well informed about my research aims in the *Public Play*

project. This means that I had to provide explicit information about both the research aim (to explore how designers can support the actualisation of a democratic workshop process) and the project aim (to work on children's participation in public space issues). Although my specific research aim was not completely clear to myself at the time of conducting the fieldwork, I tried to be as transparent and accurate as I could. I also ensured that the children participated in the workshop on a voluntary basis. In addition, I asked the parents to give their informed consent for involving their child in my research, except for some children in the *Dialogue Shapers* workshop[30]. Furthermore, I chose not to display the direct persona of the children in the dissemination of my research in order to protect their privacy. This means that I have cropped some photos and I have replaced the children's original names in the written memorisations.

3.2
A 3-Step Methodology

My research journey consisted of exploration, demarcation, investigation, and presentation. These phases did not happen as step by step linear phases but as overlapping and iterative phases, confirming the "messiness" of arts-based research (Dyrssen, 2010, Elzenbaumer et al., 2014). I developed a methodological framework that helped me navigate this messiness in a systematic way. This methodological framework enabled me to develop a research focus, formulate my research questions, investigate these questions through practice and theory, and develop a solid contribution. This 3-step methodology consisted of the following parts: workshops, memorisation, and analysis.

1   By *workshops*, I mean my method for doing fieldwork. These workshops allowed me to explore and investigate my research questions in a practical way. More specifically, the workshops allowed

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In the *Dialogue Shapers* workshop, I did not manage to get in touch with all the parents. This was the case for the children who entered the workshop at a later stage through word of mouth from their friends or family members who were already participating in the workshop. Although I asked those children to provide contact and agreement from their parents, I did not get any reaction. For this reason, the surnames of these children are not included in the workshop credits. For the same reason, I did not publish photos in which they can be recognised.

me to intervene with openness in real-life situations and subsequently study the workshop actors' reaction to my "design intervention" (Halse & Boffi, 2016).

I developed additional methods, *multiple-source observation* and *sideways conversation* techniques for collecting information from the workshops.

2   By *memorisation*, I mean my method for re-constructing workshop events. The memorisation allowed me to construct combined auto-ethnographic and ethnographic descriptions of selected workshop situations through consulting multiple sources of information/documentation.

These descriptions were edited into multi-layered narratives that I term *written memorisations*.

3   By *analysis*, I mean my method of analysing empirical material. The analysis allowed me to interpret my empirical material using Gaver et al.'s ambiguity categorisation (2003) as an analytical framework.

Although each of these methods relates to traditional research methods—most often ethnographic methods—they also differ due to their interventionist, constructive, or performative impact. The innovative part of these methods aligns with sociologists Celia Lury's and Nina Wakeford's call to researchers to invent new methods—they call "devices" (2012)—that allow them to investigate the particularity of the contemporary complex world as open-ended. Their call builds further on and aligns with the emergence of researchers who like to comprehend a social happening in an interdisciplinary context and have a growing need to communicate with diverse users and audiences. Within this context, Lury & Wakeford also encouraged researchers to reflect critically on the effects of their method on the knowledge they produce (Lury & Wakeford, 2012).

The following table gives an overview of how these three research steps and their methods and devices happened in time. It also shows the research outcomes and the contribution of these methods and devices.

Timeline	2014	2015
Research Phases	Fieldwork (Data Collection)	
		Empirircal Material (Data Selection)
Methods	Workshops Based on "design interventions" (Halse & Boffi, 2016)	Memorisation Based on the "mosaic approach" (Clark & Moss, 2001)
Devices	Multiple-source observation Sideways conversation Multi-project fieldwork	Written memorisation
Outcomes	Observation Field notes Documentation Artefacts	Written memorisations
Contribution	Test openness in the workshop structure (through my participatory design approach)	Capture the workshop actors' reactions in response to openness (in the written narratives)

Figure 3.1
Diagram visualising the 3-step methodology
particularities situated in time.

2016 2017 2018

Analysis (Data Analysis)

Analysis

Analytical framework

Analysis

Systematically analyse the workshop
actors' actions and interactions
(through a theoretical framework)

Step 1: Workshops

Whereas in the context of participatory design practices, workshops are used as a method for organising meetings between different interest groups in which they work on a common issue/question/situation[31], in the context of arts-based research and *research through design interventions* in particular, the participatory design workshops functioned as sites for data collection. The *workshops* formed the method for conducting fieldwork where I (the researcher) also had the ability to *intervene* (see "design interventions"; Halse & Boffi, 2016) in the field when organising and facilitating these workshops.

In this research, conducting fieldwork equalled implementing my design practice. This means that as a designer and facilitator of the *Public Play* workshops, I was able to influence the fieldwork. More specifically, in the *Public Play* workshops, I intervened by bringing openness into my participatory design approach and subsequently studied how the workshop actors reacted to this openness. I will further elaborate on the particular ways in which I introduced openness into my participatory design approach in the next chapter, chapter 4, where I will present my empirical material.

The workshops method allowed me to study the effects of ambiguity when testing various ways of bringing openness into my participatory design approach. The method was particularly beneficial for collecting in-depth information about the child–adult interactions present in participatory design workshops with children through multiple perspectives:

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In general, a workshop is understood as a place where goods are made, repaired, and sold (economic context) or a place where an apprentice learns from her/his skilled master (pedagogic context). The *Lexico.com* online dictionary also defines a workshop as "a meeting at which a group of people engages in intensive discussion and activity on a particular subject or project" (Lexico.com). In the context of my research, I understand the concept workshop from a particular design context. In the 1970s, new emergent design movements in Europe and the USA aimed for sustainable design solutions by getting closer to the users for whom they designed, through e.g. participatory design, co-design, and user-centred design. They started to organise meetings with users as a way to involve non-designers at different stages in the design process. They referred to these meetings as workshops. In other words, organising and facilitating meetings or *workshops* became one of their main design methods. Thus, in the context of my research, I understand a workshop as a place where people meet in order to work on a common issue/question/situation where the assembly of different people and interest groups is more important than the actual *place* itself.

through close observation of the child participants' behaviour and through my own experience as a designer and a facilitator of these workshops. The fieldwork in the form of workshops enabled me to develop new insights about the micro-politics of child–adult interactions in participatory design practices with children. However, the close involvement also generated difficulties because my dual role (researcher and designer/facilitator) lacked a certain *distance*, which was necessary for reflecting upon the empirical material from the perspective of the specific research questions. In order to create this distance, I engaged myself in an iterative process of

- transcribing the situation as a multi-layered description (multiple-source information),
- re-viewing the situation through a specific lens (theoretical framework),
- re-writing the description (data selection).

This iterative process helped me to create distance from my personal experience and interpretation, and hence enabled me, as a researcher, to construct empirical material with credibility and validity. This process of transcribing, reviewing, and re-writing constitutes part of the second step of the 3-step research methodology. I will further elaborate on this second step after I have explained the first step.

Devices for Data Collection

Whereas the workshops method enabled me to intervene in the fieldwork, I also developed particular methods or "devices" (Lury & Wakeford, 2012) for collecting data. Similarly to ethnography, I used the participant observation and interview methods for collecting valuable information during my fieldwork. However, I reconfigured these traditional ethnographic techniques in order to respond to my specific research approach and to accommodate research with children. Firstly, I developed *multiple-source observation* as a device for conducting participant observation whilst safeguarding a distance between my dual roles of designer/facilitator (*in* design practice) and researcher (*on* design practice). Secondly, I developed the *sideways conversation* device for conducting interviews with children in a more spontaneous way and for *interviewing-in-action* instead of conducting *post factum interviews-on-action*. Thirdly, I developed *multi-project fieldwork* as a device for developing insights from a diversity of situations, conditions, and contexts.

Multiple-Source Observation

Just like in ethnographic fieldwork, I conducted "participant observation" (Allen, 2017) and observed the child participants' actions and interactions in response to the openness I introduced into the workshop. However, because of being simultaneously involved in the dual role of designer facilitating the workshop and researcher doing participant observation, conducting participant observation became a difficult endeavour. In some situations, my involvement as facilitator interrupted—hence disturbed—my observations, resulting in *incomplete* or unsatisfactory participant observation. At the same time, the *insider* position in the workshop also contributed to a subjective colouring of my participant observation. Therefore, I reached out to other people to conduct additional observations. These *external observations* were mostly conducted by workshop assistants and/or professional photographers and filmmakers who had experience in working with children. The external observers made documentation in the form of field notes, photo reportages, and video recordings.

The overall fieldwork documentation thus consisted of preparatory notes, field notes, photo reportages, video recordings, and sound recordings made by myself and the external observers as well as the artefacts made by the workshop actors themselves. All this material allowed me to compile multiple-views observations. This technique relates to the "mosaic approach" developed by Alison Clark and Peter Moss in 2001. This method starts from the premises of listening to children. It uses a wide range of means for putting many individual pieces of data together into one overall picture. Clark & Moss claimed that their "mosaic approach" enables researchers to develop a deeper understanding of children's perspectives because it uses a variety of documentation sources, e.g. notes, photographs, slides, maps, transcripts, books, etc. (i.e. "visual listening"; Clark & Moss, 2001) and involves many different methods for listening to children, e.g. observation, child interviewing, photography and book making, tours, map making, interviews, magic carpet, etc. (i.e. "multiple listening"; ibid.).

Sideways Conversation

In ethnographic fieldwork, a participant is typically interviewed by a researcher in a structured or semi-structured way. Megan Gallop suggested that having "conversations" (2000) is a better method for doing research with children than traditional interviews. According to Gallop,

a conversation offers a listening modus providing children with the opportunity to be heard. With her conversation method, Gallop pointed out the importance of 'listening to children' when doing research with children. She argued that researchers have to listen to what children have to say as well as to their questions, their doubts, their joy, their aspirations, their troubles, their thoughts, their concerns, etc. Many researchers have discussed adults' difficulty in *really* listening to children (Clark & Moss, 2001; Hare, 1993). Elizabeth Graue and Daniel Walsh (1998) also rejected a traditional interview approach when working with children. Graue & Walsh have argued that, in many cases, children are not aware of what they know and need help therefore to make their implicit knowledge explicit. Therefore, Graue & Walsh suggested that researchers use indirect methods for interviewing. Sociologist Debra Parkinson recommended children doing something else whilst being interviewed (Parkinson, 2001; Cappello, 2005). Liz Brooker (2001), Elisabet Doverborg and Ingrid Pramling Samuelsson (2003) suggested using props—like toys, paper, crayons, sand, clay, pictures, photographs, and puppets—for interviewing children. Finally, Loris Malaguzzi pointed to the "hundred languages" (Malaguzzi, 1970 from Cagliari et al., 2016) in which children think, talk, negotiate, and discuss.

Building further on these studies, I developed the *sideways-conversation* device for interviewing children. I understand these *sideways-conversations* as conversations in which both researcher(s) and child participants put questions to each other in dialogue. These mutual conversations happen 'on the side' of children's actions (their playing, drawing, modelling, dancing, …) but in interaction with these actions. This means that the conversations are most often based on children's real life and *in situ* experiences. Furthermore, the *sideways-conversations* make it more likely for researchers to acknowledge that children use a "hundred languages" (Malaguzzi, 1970 from Cagliari et al., 2016) and take these many and alternative languages into account for developing a more complex understanding of children's perspectives and experiences.

Multi-Project Fieldwork

Similarly to the way that much ethnographic fieldwork is organised over time, I organised the *Public Play* project as five mini-projects instead of one large contiguous project. Each of these five mini-projects or workshops consisted of different workshop sessions. One advantage of this fieldwork set-up was its suitability for exploring the effects of openness

in my participatory design approach in a diversity of situations, conditions, and contexts (e.g. differences in partners, time, participant groups, child participant ages, themes, etc.). Secondly, separating these mini-projects/workshops in time generated a constructive learning process. What I learned from one workshop became the start for further investigation in the next workshop.

Step 2: Memorisation

In the context of my research methodology, I understand *memorisation* as a method for constructing my empirical material. The memorisation method consisted of iterative and overlapping phases in which, as the researcher, I re-visited those workshop situations that were relevant to the research questions after the completion of a workshop. Because I had been present as the researcher and as the designer/facilitator in those workshop situations, I could rely on my memory for recalling those situations. In addition, because I was present in my dual role—both researcher and designer/facilitator—I could construct both ethnographic and auto-ethnographic material. The ethnographic material was based on my memorisation of my perceptions of how I, the researcher, observed the child participants' behaviour and more specifically their behaviour when they reacted to the openness I had introduced into the workshop, and the ambiguity they subsequently experienced. The auto-ethnographic material was based on my memorisation of my experience as the designer/facilitator in the workshop situation. However, in order to transgress the *subjective*[32] stance in the construction of my empirical material, I included various sources of information provided by other people involved. These external sources included: observations and field notes made by the external observers and various sources of documentation like photo reportages, video recordings, sound recordings, and artefacts. These multiple information inputs resonated with the "mosaic approach" (Clark & Moss, 2001) and influenced the credibility and validity of the empirical material.

The difficulty of the memorisation method lies in its auto-ethnographic character. It pivots around the role of the self in relation to the credibility and validity of the empirical material and research outcome.

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Again, I refer here to the designer/facilitator as subject.

In order to deal with this, I had to eliminate personal detours when memorising and instead focus on my research questions. I developed this de-familiarising (di-)stance through a particular way of memorising. My memorisation approach consisted firstly of visually memorising those workshop situations as if I had been watching them as a member of the audience (an outsider) at a movie scene (the workshop situation) for the very first time. Next, I wrote a report in which I described as accurately as possible what I had *seen* in my memory. Playing the *viewer* of that workshop situation scene made it easier for me to *read* and interpret the workshop situation according to my research question. This 'playing as if I was an external viewer' enabled me to keep a distance from interpreting the workshop situation through my designer/facilitator role since it foregrounded my research role. This artificial separation in my dual role—designer/facilitator and researcher—was necessary for constructing transparent empirical material. However, I acknowledge that narratives are always a form of interpretation and therefore situated just as the knowledge they produce is situated (Haraway, 1988).

Furthermore, by choosing to memorise certain workshop situations that had stayed in my mind because they were irritant, problematic, or exceptional in another way, these particular situations became influential for how I continued developing the research project. The sociologist Mike Michael has already warned that writing anecdotes as a research method can possibly result in "anecdotalisation" (Michael, 2012). By *anecdotalisation*, he means the performative effect of an anecdote; that writing anecdotes as a research method can result in a transformation of the author/researcher, resulting in e.g. a methodological and theoretical reorientation of the researcher. By an anecdote, Michael means a short nonfiction narrative focusing and reporting on a particular incident involving the author that s/he finds worth recording (Michael, 2012). Nevertheless, he recommends the writing of anecdotes as a method for research because they enable the author/researcher to analyse her-/himself and how this self is "situated within broader socio-cultural dynamics" (Michael, 2012, p. 26).

Device for Data Selection

Whereas memorisation enabled me to consult various sources of fieldwork information, I also developed a particular "device" (Lury & Wakeford,

2012) for assembling specific pieces of information from these various sources and constructing them into a multi-layered narrative: a *written memorisation* that formed the basis of the empirical material.

Written Memorisation

I transcribed my memorisation of each specific workshop situation into a written narrative that I have called *written memorisation*, similar to ethnographic writing. The written format was intended to translate the researcher's memories and various other pieces of information into a fixed and explicit information script. *Written memorisation* also included some limited *editing* by the researcher since s/he needed to assemble different pieces of information and sources into one narrative. The researcher can highlight certain parts of the information (those of value to the research question) whilst reducing those parts that are not relevant to the research question. This does not mean that the researcher can transform facts or introduce fiction. It is rather a matter of highlighting certain issues and deleting unnecessary parts.

In this thesis, my *written memorisations* provide information about how, as a designer and a facilitator, I brought openness into the workshop structure and its specific components. They also give information about how the workshop actors—the child participants and designer/facilitator—experienced this openness as ambiguity and how they dealt with the diversity of meanings when putting the workshop structure into practice.

Written memorisations show similarities to ethnographic descriptions in the way that they hold "thick description" (Geertz, 2000[1973]). These "thick descriptions" (ibid.) support qualitative research and have enabled me as the researcher to represent the complexity of the interactions between the child participants and the adult designer in an in-depth way. These *written memorisations* offered detailed and multi-layered views upon the workshop situations and allowed me to zoom in on the micro-politics of the workshop process actualisation.

Step 3: Analysis

The analysis of my empirical material was the last step of the 3-step research methodology. The analysis method consisted of a systematic mapping of the empirical material to my analytical framework. This allowed me to identify returning themes and patterns and subsequently

generate new insights. This method aligns with the way that ethnographic material is typically analysed: comparing a varied input of participant observations, interviews, and/or field notes with existing studies in order to trace patterns, connections, similarities, or points of contrast (Eriksson & Kovalainen, 2008). In other words, the analysis method allowed me to look at the chaos of the social happening of participatory design practices with children in a systematic way. Such chaos typically consists of a cluster of actions and interactions between many different actors; actions and interactions that overlap and are intertwined in different ways. At the same time, I acknowledge that this systematic organisation of the social happening is an artificial research technique and disconnected from the messiness of real-life situations (Law, 2004). I agree with John Law that the world is pre-eminently not clear, definite and knowable (ibid.).

Device for Data Analysis

In the light of my research questions, I developed a specific analytical framework. The framework started from Gaver et al.'s 2003 ambiguity categorisation—supplemented by self-identified repeated concepts emerging from the particularity of the empirical material gained from previous analysis rounds.

Analytical Framework

The workshop structure played a prominent role in the analysis. The reason why it was so important that the workshop actors should experience ambiguity in relation to the workshop structure was because the workshop structure was the main principle guiding and directing the process actualisation. This would mean (according to my hypothesis) that when opening up the single meaning of the workshop structure to the personal interpretation of the child participants, they could also have a say in the actualisation of the process which is part of actualising a democratic process. In other words, my analysis aimed to inquire whether opening up the interpretation of the workshop structure to a diversity of meanings—generated by the individual workshop actors—would be a possible way to actualise a process in which both designer and child participants decide about which meaning(s) are to be actualised through their equal involvement in this decision-making.

The analytical framework included four consecutive questions:

1   Which "form(s) of ambiguity" (Gaver et al., 2003) did the workshop actors experience in relation to the workshop structure?
2   How did these different "forms of ambiguity" (ibid.) relate to openness in the components of the workshop structure?
3   How did the workshop actors deal with the emerging diversity of meanings, and what were the effects of experiencing an ambiguous workshop structure in relation to actualising a democratic process?
4   Which other aspects obstructed the actualisation of a democratic process?

Question 1—In the first step of the analysis, I used Gaver et al.'s 2003 ambiguity categorisation to locate ambiguity. Here, I assessed whether the workshop actors consciously experienced an ambiguous workshop structure and if so, whether this experience emerged 1) due to the information broadcast by the workshop structure (i.e. "ambiguity of information"; ibid.); 2) due to the workshop actors' relationship to the workshop structure (i.e. "ambiguity of relationship"; ibid.), or 3) due to the context in which the workshop actors interpreted the workshop structure (i.e. "ambiguity of context"; ibid.).,

Question 2—With the second step of the analysis, I aimed to develop a better understanding of the relation between the designer/facilitator introducing openness into the workshop structure and the conscious experience of different "forms of ambiguity" (Gaver et al., 2003). In order to develop a better understanding of the effects of openness for awakening a conscious experience of ambiguity, and to unpack the role of openness in the various components of the workshop structure, I focused in particular on the following components: assignment, material, setting, facilitator role, child participant role, and goal.

·   By *assignment*, I mean the individual assignments that the workshop actors conduct when actualising the process.
·   By *material*, I mean the materials the workshop actors use for working on those assignments.
·   By *setting*, I mean the spaces in which the workshop actors work on those assignments as well as their particular location and set-up.
·   By *facilitator role*, I mean both the way in which the designer carries out her/his facilitator role and the way in which the other workshop actors—in this case, the child participants—perceive the facilitator's role.
·   By *child participant role*, I mean both the way in which the chil-

dren act out their participant role and the way in which the other workshop actor—in this case, the facilitator—perceives the child participants' role.

- By *goal*, I mean the goal that drives the workshop actors while they are working on the workshop question and the assignments in particular.

Question 3—In the third step of the analysis, I analysed the workshop actors' behaviour with regard to how they dealt with the emerging diversity of meanings and whether this led to a democratic process or not.

Question 4—Finally, with the fourth and last step of the analysis, I aimed to develop a better understanding of whether there were other aspects that obstructed the actualisation of a democratic process and how the designer can eliminate or counteract these?

The following diagram summarises the four steps of the analytical framework; their particular questions, lenses, and the components they include.

3.3
Chapter Summary

In this third chapter, I have explained how my particular *research through design interventions* approach has been informed by "research through design" (Frayling, 1993), "design anthropology" (Gunn et al., 2013; Smith, 2016), and "design interventions" (Halse & Boffi, 2016). My research approach allowed me simultaneously to develop knowledge-through-practice and practice-through-knowledge. On one hand, I used my design practice to produce new insights about participatory design with children, children's participation in society, and democracy whilst, at the same time and on the other hand, I used these insights for implementation in practice. My research approach allowed me to study something that was still in the process of becoming.

The methodology chapter describes, situates, and argues for the 3-step research methodology, workshops—memorisation—analysis, that I have developed for working on my research questions. It holds specific methods for conducting fieldwork, constructing the empirical material, and analysing this material according to the *research through design interventions* approach. These specific methods are workshops, memorisation, and analysis.

Step	Question	Analytical Framework
1	Which "form(s) of ambiguity" (Gaver et al., 2003) did the workshop actors experience?	Forms of ambiguity: Ambiguity of information (Gaver et al., 2003) Ambiguity of relationship (ibid.) Ambiguity of context (ibid.)
2	How do these different "forms of ambiguity" (ibid.) relate to openness in the different components of the workshop structure?	The components of the workshop structure: Assignments Materials Settings Facilitator role Child participant role Goal
3	How did the workshop actors deal with ambiguity?	Forms of ambiguity: Ambiguity of information (ibid.) Ambiguity of relationship (ibid.) Ambiguity of context (ibid.)
4	Which other aspects obstruct the actualisation of a democratic process?	

Figure 3.2
Diagram visualising the four steps of the
analytical framework.

- The workshop method consisted of conducting my design practice—that is, designing and facilitating participatory design workshops with children. It enabled me to intervene (with openness) in my fieldwork whilst at the same time studying the effects of this "design intervention" (Halse & Boffi, 2016).
- The memorisation method consisted of memorising relevant workshop situations that assembled ethnographic and auto-ethnographic information and supplementing those memorisations with additional information provided by other sources such as observation and field notes from external observers and various sources of documentation. The assembly of such multiple-sourced material enabled me to construct the empirical material—the *written memorisations*—whilst safeguarding credibility and validity.
- The analysis method consisted of systematically analysing the empirical material through an analytical framework based on Gaver et al.'s 2003 ambiguity categorisation supplemented by some key concepts that had emerged from iterative cycles of analysing the material.

The 3-step methodology allowed me to

- test openness in my participatory design approach when aiming to actualise a democratic process,
- capture the workshop actors' reactions (including my own) in response to the openness "design intervention" (Halse & Boffi, 2016),
- systematically analyse the workshop actors' actions and interactions in the light of my research question.

The major advantage of the *research through design interventions* approach was that it allowed me to have a close and in-depth reading of the interactions between the child participants and the facilitator (myself) in response to their experience of an ambiguous workshop structure. This close and in-depth reading enabled me to develop an in-depth understanding of the role of ambiguity in the micro-politics of the child–adult interactions in participatory design practices with children, and simultaneously to explore ways in which designers can support the actualisation of a democratic process through ambiguity. However, this close reading and my dual role as researcher and designer/facilitator also generated difficulties when it came to safeguarding the credibility and validity of the empirical material. Furthermore, the close and in-depth reading also hindered me from keeping a certain distance. However, through reconfiguring existing ethnographic

research methods, I have managed to deal with those challenges. These research methods or "devices" (Lury & Wakeford, 2012) included devices for data collection (*multiple-source observation*, *sideways conversation*, and *multi-project fieldwork*), a device for data analysis (*written memorisation*), and a device for data analysis (analytical framework). For instance, the *multiple-source observation* enabled me to extend my personal observations and experiences with those of other actors involved (i.e. external observers), which in turn enabled me to construct empirical material, the *written memorisations*, that consisted of many sources of information provided by a diversity of actors involved. Finally, the analytical framework enabled me to analyse the *written memorisations* in a systematic way through a fixed set of questions, including an external theory (i.e., Gaver et al., 2003).

Public Play & Its Analysis

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The *Public Play* project consisted of five workshops which formed the core of my research. After contextualising the workshops in the project, I will focus on a selection of three workshops and explain their framing and how I introduced openness into them when designing and facilitating their workshop structure. This will be followed by the *written memorisations* of the three workshops. They mainly describe workshop situations in which the effect of introducing openness into the workshops was experienced and used. Finally, I will provide the analysis of these workshop situations. I will pay special attention to those effects that influence the actualisation of a democratic process. I will end this fourth chapter with an overview of the eight analyses.

4.1
The Public Play Project

The *Public Play* project was an adult-initiated design project working on children's participation in society, or, more specifically, on their participation in public space. The project aimed to realise this by designers working together *with* the children. Therefore, I chose to use a participatory design approach. I had a specific interest in the Scandinavian approach to participatory design because of its ambition to work with values of democracy, empowerment, and quality of work/life[33] (Ehn, 1990).

With the *Public Play* project, I also had a specific research ambition. My research focus aimed to democratise the participatory design approach further in a context in which children and adults collaborated. Starting from the lack of children's participation in the processes that drive those practices and their outcomes, I aimed to develop a better understanding of how to reconfigure the participatory design approach so that children were democratically involved; that they were free to express their opinion regarding this process and equally involved in decision-making regarding the process whilst ensuring that their actions led to a just process. In other words, my research focus aimed to actualise

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[33] Initially, the Scandinavian approach to participatory design aimed at improving people's well-being on the work floor but over time this has been extended to other contexts for improving people's well-being, e.g. education, care sector, public space.

those practices as democratic processes on the basis of developing democratic child–adult interactions.

I started to work on my research ambition by testing the effects of openness in my participatory design approach. In practice, I first introduced openness into my participatory design approach and consequently analysed whether its effect had a positive impact on actualising a democratic process. Furthermore, I tested these effects by exploring various ways of introducing openness.

With my research platform *Office for Public Play*[34] and as a design researcher, I organised a series of five workshops to which I gave the name *Public Play*. With the term *public*, I primarily wanted to refer to the notion of 'public space'. It also referred to my ambition to involve children seriously in 'public matters' and to create an inclusive public realm in which children—seen as capable and responsible subjects—could play a valuable role in critically questioning and changing our society. The term *play* refers to *free play* which was initially an important source for creating openness and involving children's culture in my participatory design approach. In *free play*, all players are equally involved in defining the rules of their play. In the context of participatory design with children, I aimed to translated this concept as: free play enables all the workshop actors (designers and child participants) to be equally involved in defining how they actualise the workshop process. During the course of organising the five different *Public Play* workshops, I extended the free play approach with additional concepts based on e.g. children's "hundred languages" (Malaguzzi, 1970 from Cagliari et al., 2016), "loose parts" (Nicholson, 1971), "streetwork" (Ward & Fyson, 1973), and "dérive" (Debord, 1994[1967]). I will elaborate on these different concepts and approaches when describing the fieldwork of the three workshops later in this chapter.

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As part of my engagement in the TRADERS project, I established a research platform called *Office for Public Play*. With this research platform, I wanted both to explore and show the importance of *play* in people's everyday life. More specifically, I explored the quality of play as a resource for challenging and reconfiguring normative child–adult relationships and interactions and worked on children's empowerment through play. Besides the five *Public Play* workshops, the *Office for Public Play* organises other activities like e.g. workshops, lectures, and training weeks, and is involved in art projects and exhibitions. www.officeforpublicplay.org

The *Public Play* project ran for about two years, from 2014 till 2016[35]. It consisted of five workshops called *Public Borders*, *Playful Rules*, *Playful Monstration*, *Recipes for unControl*, and *Dialogue Shapers*. In these five workshops, I had various partners. They were art organisations and institutions, one high-school, youth workers, the Cultural Department in Gothenburg, politicians in Ghent, and an NGO working on slow mobility. I worked with different groups of children, mostly aged between 6 and 12. I also worked with a group of 16-year-olds. The various workshops ran over different time spans, ranging from a one-day workshop to a one-week workshop. I organised most of the workshops in Belgium because this allowed me to converse with the children through a shared native language. When I worked in Gothenburg, I worked with teenagers from an international school where English is the main language. These differences in context (location, participant group, partners, time, etc.) allowed me to explore the effects of openness in my participatory design approach within a diversity of circumstances. In the following table, I give an overview of the different conditions and contexts of these five workshops. I will further elaborate on these particularities when describing the fieldwork.

As I have already mentioned in chapter 3, my role in the *Public Play* workshops was twofold. On one hand, I was participating as a designer. In my designer role, I mainly designed and facilitated the workshop structure, in order to support children's participation in public space. At the same time, I was acting as a researcher. In this role, I *intervened* with openness when designing and facilitating the workshop structure, in order to support children's participation in the process and actualise a democratic process. In this researcher role, I also collected information from the fieldwork and documented specific workshop situations, in order to construct empirical material which I analysed to develop new insights about the effects of openness in relation to my specific research questions.

Although the *Public Play* project altogether counts five workshops, I have decided to include only three workshops in this thesis. The reason is that it would be too much effort for the reader to work through such a large amount of material, especially since I am able to make my

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Although there is no specific end date for the *Public Play* project, the involvement of the *Public Play* project in the fieldwork of this thesis started in 2014 and ended in 2016.

Workshop	Date	Duration	Topic
Public Borders	Jun 2014	1 day × 4 hours	Children's accessibility in public space
Playful Rules	Aug 2014	3 days × 6 hours	Normative socialisation in public space
Playful Monstration	Oct 2014	5 days × 7 hours	Children's self-defined public space issues
Recipes for unControl	Dec 2015	3 days × 2 hours	Social in-/exclusion in public space
Dialogue Shapers	Jul 2016	5 days × 7 hours	Slow mobility in the city

Table 4.1
Overview of the set-up of the five
Public Play workshops.

Place	Participants	Partners
Vorst, Brussels (BE): Wiels Public space	9×children (aged 7–11) 1×designer/researcher 1×artist	Office for Public Play (design-based research) Wiels (art)
Vorst, Brussels (BE): Parc de Forest	10×children (aged 6–11) 1×designer/researcher 1×assistant 30×art-lovers (audience)	Office for Public Play (design-based research) The Incroyable Téléphérique (art) GC Ten Weyngaert (cultural centre)
Vorst, Brussels (BE) Wiels Public space	11×children (aged 6–11) 1×designer/researcher 1×assistant 20×parents (audience)	Office for Public Play (design-based research) Wiels (art)
Centre, Gothenburg (SE): ISGR Göteborgs Konsthall	11×teenagers (aged 16) 1×designer/researcher 1×teacher 1–3×assistants	Office for Public Play (design-based research) Göteborgs Konsthall (art) Göteborgs Stads kulturförvaltning (cultural department) ISGR (school)
Dampoort, Ghent (BE): Pastory Public space	12×children (aged 6–12) 1×designer/researcher 1×designer 2×local politicians 5×parents (audience) 2×assistants	Office for Public Play (design-based research) Trage Wegen VZW (NGO mobility) dasKunst (art education) VZW Jong (NGO youth welfare work for newcomers) Pastory (community house)

contribution on the basis of the three selected workshops only: *Playful Monstration*, *Recipes for unControl*, and *Dialogue Shapers*. In other words, the three selected workshops provide enough information to answer my research questions. Furthermore, whereas the first two workshops were more explorative and open-ended, the last three workshops (the three selected workshops) were more connected to the current research questions. Finally, the three selected workshops offer a diversity of conditions and contexts such as differences in counties, partners, and child participants' ages.

4.2
Playful Monstration

I developed the *Playful Monstration* workshop (October 2014) as part of the Autumn *Kids Holidays Workshops* initiated by Wiels. Based in the South of Brussels, Wiels is one of the leading institutions for contemporary art in Europe. Besides presenting temporary exhibitions showing both emerging and more established artists, Wiels offers a residency programme for emerging international artists. Furthermore, Wiels is engaged in a social-artistic mission to help foster the economic and cultural revivals of its immediate neighbourhood and the city of Brussels in general.

As part of their educational service, Wiels organises one-week creative workshops for children aged six to twelve during school holidays. The workshops offer children a setting in which holidays and pleasure go hand in hand with artistic discoveries. They allow children to explore and experiment with different art techniques whilst giving free rein to creativity without any need for results. This five-day workshop costs about 100 euros and therefore attracts mostly children from middle-class working parents living and/or working in Brussels. The *Kids Holidays Workshops* are designed and facilitated by artists who are encouraged to bring in their personal practice and interest.

Wiels and I were not complete strangers to each other. We knew each other through several occasions. Besides my being a regular visitor to their activities, I had exhibited two of my projects, *Réporter sem Beiras* (2011) and *The Return of O* (2014) at Wiels. Their invitation to organise the upcoming *Kids Holidays Workshops* came soon after Wiels's educational staff had heard about my engagement with children in the TRADERS project. Wiels's social-artistic engagement with its immediate neigh-

bourhood formed a solid basis for exploring how art expressions could help to develop children's critical awareness about public space issues.

The recruitment of the participant group happened through Wiels's educational service. Although the public space focus of the *Playful Monstration* workshop was announced on the Wiels website, I did not expect the children to have a particular interest in public space issues but to have a more general interest in art making. A group of eleven children, aged between six and eleven, were enrolled for the workshop week. Most of the children came from different neighbourhoods in and around Brussels and did not know each other, apart from two siblings and two school friends. The children were Flemish-speaking (as I am) and came from white middle-class families (as I do). My main role in the workshop was to design and facilitate the workshop structure. I had invited my English-speaking TRADERS colleague Michael Kaethler to be part of the workshop. Michael has a background in political science, social anthropology, urban design and spatial planning. I invited him to help me develop an outsider view on my approach through post-workshop reflection dialogues (i.e. the *multiple-source observations* research device). I also encouraged him to take an active part as a participant and co-facilitator.

The Workshop

With the *Playful Monstration* workshop, I aimed to support a group of children in developing critical awareness of their local public space. Paulo Freire's "cultural circles" (Freire, 2013[1965]) had inspired me to organise participatory design sessions in which the child participants worked on developing "critical consciousness" (Freire, 2000[1968]) of their situation in public space. The aim was to activate them to make changes to it. Rather than providing the children with a predefined theme for exploring public space, I organised various design assignments that aimed to help them to identify public space issues that they themselves found relevant.

For this workshop, I had defined a vague preliminary outcome: a playful *monstration*. In the context of this workshop, the term *playful monstration* should be understood as an arts-based cortege in which the children expressed their personal opinions about self-identified public space issues to an external audience. Rather than expressing their critiques in the form of a protest—like a *de-monstration*—or other kind of counter-actions, the idea *monstration* aimed to encourage the children

to formulate their critical opinions in a constructive way and thus create actual change. Although the term *monstration*—originating from the Latin word for 'to show'—indicates a rather passive engagement (such as spectatorship with an audience watching the children's cortege)—the final outcome aimed to engage the audience in a more active way by organising a dialogue-style *monstration* between the child participants and the audience. In the dialogue, both parties were to take an active role when discussing the children's opinions regarding their self-identified public space issues.

In this workshop, I explored openness in my participatory design approach by exploring and reconfiguring a series of concepts and testing those translations. In retrospect, the following concepts were important for introducing openness into specific components of the workshop structure: "loose parts" (Nicholson, 1971), "streetwork" (Ward & Fyson, 1973), "dérive" (Debord, 1994[1967]), "transurbance" (Stalker from Wiley, 2010), "paidia" (Caillois, 2001[1958]), and children's "hundred languages" (Malaguzzi, 1970 from Cagliari et al., 2016).

Openness in material—Simon Nicholson's "loose parts" inspired me to use workshop materials with no previously specified purpose. Nicholson defined "loose parts" (1971) as materials with no specific set of directions, that can be used alone or combined with other materials. They are variable components that can be moved, carried, combined, redesigned, lined up, taken apart and put back together in multiple ways, e.g. sand, stones, shells, pieces of wood, paper, etc.[36]. With the openness of *loose parts materials*, I aimed to enable the child participants themselves to define how they wanted to use the material and how they wanted to work on a certain assignment.

In some cases, as the facilitator, I provided those *loose parts materials*, e.g. clay, rope, chalk, textile, tape, and recycled materials like empty food boxes, wire, paper, cardboard, etc. In other cases, again as the facilitator, I encouraged them to find *loose parts materials* themselves. For instance, I encouraged them to use the physical interface of cities and its public spaces as *loose parts materials*, e.g. streets, squares, buildings, items, and smaller materials including ready-made objects like rubbish bins, traffic signs, lamp posts, branches, screws, stones, coins, earth, leaves, flowers, feathers, paper—and even a dead bird.

Openness in assignment—Although Nicholson defined his theory of "loose parts" (1971) in relation to materials, I discovered the potential

of his theory (i.e. working with "loose parts" encourages creativity) for stimulating the child participants' creative engagement with the workshop assignments. In other words, combining bits and pieces of potential assignments with the initiatives of the child participants or with random elements from the here and now promoted openness in the assignment and the potential for including the child participants' meanings in redefining the assignment. In a *loose parts assignment*, as the facilitator, I provided pieces of an assignment, encouraged the child participants to find or develop assignment-pieces in the specific situation and/or their personal context, and supported them in assembling these bits and pieces into a self-defined assignment or re-defined assignment. In the *Playful Monstration* workshop, I designed a series of *assignment-banners* (figure P2-05) that inspired and guided the child participants in composing assignments themselves. These *assignment-banners* were displayed on a big table in the room and the child participants were free to visit the table at any time during the process in order to work on formulating a new assignment. They could choose one or more banners when developing an assignment. The *assignment-banners* were triptych banners representing a 3-step process. The first step meant to engage the child participants in a certain issue, concept, or technique. The first banner-part

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With his "Theory of Loose Parts", designer Simon Nicholson criticised educational and cultural institutes for making people believe that creativity is only for the gifted few, those who have been trained in art making, as professionals only. Nicholson believed that creativity belongs to all people and can empower them to make changes in their own lives. Nicholson understood creativity as "the playing around with the components and variables of the world in order to make experiments and discover new things and form new concepts" (Nicholson, 1971 p. 30). Nicholson stated that such components and variables—that he called "loose parts"—are core to creativity because they allow people to link these loose parts in many new ways. Loose parts are materials with no specific set of directions that can be used alone or combined with other materials. They are materials that can be moved, carried, combined, redesigned, lined up, and taken apart and put back together in multiple ways. Loose parts are "materials and shapes; smells and other physical phenomena, such as electricity, magnetism and gravity; media such as gases and fluids; sounds, music, motion; chemical interactions, cooking and fire; and other humans, and animals, plants, words, concepts and ideas." (Nicholson, 1971, p.30). Furthermore, Nicholson disapproved of children being mainly exposed to clean and static designed play equipment and environments because such environments do not allow children to be creative and interact with the world. Nicholson claimed that children learn better in a laboratory-type environment with loose parts where they can experiment, build, deconstruct and remake, and find things out for themselves.

contained simple questions to stimulate the child participants to explore the issue/concept/technique. This part contained a broad collection of visual documentation to support this exploration. The second step was meant to get deeper into the issue/concept/technique. Therefore, it first informed the child participants—using text and images—about a specific art theory or approach related to the issue/concept/technique concerned. The second step worked on developing the child participants' awareness and critical reflection. The third step was meant to help the child participants to formulate a specific question related to the overall workshop question and based on the previous two steps. This question functioned as a springboard for formulating the assignment. With this 3-step procedure, the child participants had enough material and support to develop an assignment themselves. In addition, I had designed the *assignment-banners* with a diversity of visual materials that aimed to enable the child participants to access the input in various ways.

Openness in setting—Colin Ward and Tony Fyson[37] developed an educational approach in which learning from interacting in the *real* world is core and contributes to children's autonomy, mutual aid, and engaged citizenship (Ward & Fyson, 1973). Inspired by Ward's & Fyson's approach, I organised many workshop assignments in real-life environments, i.e. in public space. Working in real-life settings enabled the child participants to interpret the setting (the place and its location and set-up) according to their personal experiences and also influenced the way they worked on the assignment.

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In 1971 Colin Ward & Tony Fyson started working for the *Town and Country Planning Association* (TCPA) in London. They were appointed as education officers responsible for developing a new school curriculum focusing on environmental education (Burke, 2014). The underlying theoretical and practical terms for this curriculum were published in *Streetwork—The Exploding School* (1973). The book lays out their vision of education with a focus on developing children's autonomy, mutual aid, and engaged citizenship. Furthermore, Ward & Fyson envisaged children and young people being positive resources in their communities and for their communities (Burke, 2014). The authors focused on what is universal across generations rather than what divides the young from the old. The curriculum promoted an activist approach and gave environmental education a performative character. Ward & Fyson did not only envisage children and young people as those who can learn from interacting in real-life situations but also as those who can make changes through "small collective acts and interventions that produce creative solutions to pressing needs, problems or desires." (Burke, 2014, p. 434).

Other sources of inspiration were the "dérive" technique (Debord, 1994[1967]) developed by the Situationists International and Stalker's "transurbance" technique (Stalker from Wiley, 2010). In short, a "dérive" is a drifting practice in which the participants walk around in the city after abandoning their usual motives for movement and action, and let themselves be drawn by the attractions of the terrain and the encounters they find there (Knabb, 1995, p.50). Stalker's "transurbance" technique consists of a collective walking practice in which the walkers map the city and its transformations through reading and reflecting on its architectural spaces and interfaces (Stalker from Wiley, 2010). In the *Playful Monstration* workshop, the *dérive* and *transurbance* techniques encouraged the workshop actors to explore the city setting in new ways (*dérive*) and/or perceive the city setting with new eyes, hence interpreting that setting in new ways. In addition, the *dérive* and *transurbance* techniques encouraged the workshop actors to engage with the materials they encountered in this setting. In other words, the *dérive* and *transurbance* techniques had a positive effect on opening up the material. Finally, the *dérive* technique encouraged the workshop actors to take a leading role in deciding where to go, when to stop, and what to explore. This means that the *dérive* technique also had a positive effect on opening up the facilitator and child participant roles.

Openness in the child participant and facilitator roles—I aimed to open up the child participant and facilitator roles by activating a "ludus" (Caillois, 2001[1958] mindset and attitude. I derived the *ludus* concept from Roger Caillois' play spectrum. Caillois presented his play spectrum[38] as a continuum between the *ludus* and *paidia* types of play (ibid.). Whereas the *ludus* type of play (like games) refers to play where

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With his play continuum, Caillois suggested seeing play as a dynamic interaction between *ludus* and *paidia* types of play. For Caillois, *ludus* represent structured types of play where rules are externally defined and most often these rules are set in advance (e.g. games). In contrast, with *paidia* he refers to spontaneous play activities in which the rules are defined by the players themselves and rules emerge from the players' interaction with their environment and each other (i.e. free play). Translating Caillois' continuum in the context of participatory design practices with children, I understand a *ludus* approach to participatory design to be an approach in which the designer takes a leading role in defining how the process will be actualised. The child participants merely follow a pre-scripted path. On the other hand, in a *paidia* approach to participatory design, the child participants are allowed to have their say in actualising the process.

the rules and goal are externally defined in advance, the *paidia* type of play (like free play) refers to play where the play is free from a predefined goal and the rules are defined by (all) the players themselves during their play. Based on his two types of play, I made a comparison between *ludus* and *paidia* players and the workshop actors' roles. In a *ludus* way of working, the child participants work on a goal that is prescribed by the facilitator by following prescribed rules and roles again prescribed by the facilitator. In the *Playful Monstration* workshop, the *paidia* or free play mode enabled the child participants to participate in defining those rules whilst working on a common interest but without predefining one specific goal.

Another source that inspired me for opening up the child participants' role was Loris Malaguzzi's "hundred languages" (Malaguzzi, 1970 from Cagliari et al., 2016). This concept enabled the facilitator to open up for the many ways in which children communicate and interact with the world, since they act their roles in different ways that transgress normative behaviour.

Openness in the workshop goal—Building further on Roger Caillois' ideas about *paidia* (Caillois, 2001[1958]) or free play in which the co-players continuously define and redefine their play rules throughout the process—and thus do not work towards a predefined goal—I encouraged the child participants, in my role as facilitator, to interpret the assignment and the workshop goal according to their personal interests.

The workshop process started with a visit to the art centre: its exhibitions and backstage spaces (e.g. offices). In the introductory assignment, the facilitator asked the child participants to camouflage her video-camera into an artistic sculpture. The video-camera was placed on a tripod and was meant for research documentation. Through the process of making the sculpture, the child participants turned the video-camera into an imaginary friend they called Mister Wiels. The video-camera thus became a dialogue partner for the child participants and between the child participants and the facilitator throughout most of the following workshop activities. In addition, the workshop actors used Mister Wiels to make their different interpretations explicit and to facilitate the subsequent negotiation.

The workshop process mainly consisted of alternating moments of explorations in public space and in-door activities. When it came to the public space explorations, they were mainly based on the designer's

predefined assignments, assignments developed from the *assignment-banners*, and new initiatives suggested by the child participants and/or by the facilitator. These outdoor public space activities produced experiences through which the child participants defined their self-identified public space issues. These experiences formed a concrete basis from which the child participants developed reflections and critical awareness about their personal situation that, in turn, activated them to make changes to it. In the indoor activities, they mostly focused on supporting reflection. These indoor activities used a variety of artistic techniques for developing individual reflections and group discussions in which the workshop actors shared their opinions about their self-identified public space issues.

The iterative process of public space exploration and indoors reflection gradually developed into the production of a large 3D scaled city model on the floor (8×4 meters). Its collective construction happened through a process of negotiation amongst the workshop actors. The making and negotiation process of the city model helped the child participants to produce new insights through constructing, deconstructing, and reconstructing *their* city. By *their* city, I mean the way the child participants perceived and experienced certain public space issues. The making of this city model also initiated new activities (e.g. role-play, group discussion). The role-play encouraged the child participants to discuss other, possibly opposing, opinions and helped to sharpen their own arguments.

Since its introduction midway in the workshop week, the city model became a core reference, expressing the child participants' growing opinions. Whereas I, as the designer, had envisioned a cortege-type *monstration*—a walk in public space in which the child participants would show their opinions through self-made artefacts to a distant audience—the *joint* process (*jointly* defined by the child participants and the designer/facilitator) foregrounded the city model as the new monstration format. The city model enabled the child participants to *monstrate* their opinions in a way that was close to their language, capacities, background, and interests. Furthermore, the city model enabled a close dialogue between the children and the audience (composed of their parents and Wiels visitors) about the child participants' opinions about their self-identified public space issues.

The Written Memorisations and
Their Analysis

Workshop Situations Specifications

The present section contains specifications that will help to read the two selected workshop situations of the *Playful Monstration* workshop. They are short reminders of what I have already explained in detail at the start of 4.2.

The workshop situation described in *written memorisation* #1 happened during the morning of the first day. The relationships and social bonding amongst the child participants and between the child participants and the designer/facilitator were weak and in the making. The workshop situation took place in the Wiels workshop space located in the basement of their building. In this first *written memorisation*, I will describe the second workshop activity that happened after the children had explored Mark Leckey's exhibition showing sculptures. The *written memorisation* describes how the children worked on the assignment—i.e., how they transformed the video-camera (planned for research documentation) into an artistic sculpture. It was their first *making* moment of the workshop.

The workshop situation described in *written memorisation* #2 is the continuation of the situation occurring in the first *written memorisation*. In this workshop situation, the child participants and the facilitator were visiting various public places in the neighbourhood in the company of Mister Wiels, the artistically camouflaged video-camera and imaginary friend.

The following workshop actors took part in the first and second *written memorisations*:

- The child participants: a group of eleven children, aged between six and eleven.
- The designer/facilitator: myself, a researcher.
- The workshop assistant: my English-speaking research colleague Michael Kaethler.

#1 The Birth of Mister Wiels

The basement of the contemporary art centre is filled with the buzz of children. They are individually exploring the various recycled materials I had distributed on different tables in the Wiels basement. A ray of sunlight enters one of the windows higher up. It aesthetically highlights a girl who is busily unravelling a messy bunch of woollen thread. My eyes scan the room. They focus on another girl sitting a bit further away at the same table. She has found a piece of ribbed cardboard. She is using a blue marker to follow the grooves of the ribbed cardboard, creating a pretty straightforward pattern of blue lines. A smaller boy runs past me. He's holding a piece of cardboard in his hand that he points towards me as if he were shooting with a pistol. I move on and see another boy standing beside a chair. He has collected wire, a piece of cardboard, and a roll of aluminium foil on his chair. He doesn't seem to notice my presence whilst exploring the elasticity of the wire. Neither does he seem to be bothered by the boy standing next to him who is observing his concentrated exploration. Two girls—they are a bit older than the other children—have separated themselves from the rest of the group. They are sitting at a table located at the other end of the room. They have collected glue, cardboard, scissors, another role of aluminium foil and various pieces of textile. The girls are busy discussing a plan on what to make with the materials they have collected. I become distracted by noise coming from a separate part of the room. The part that is demarcated as a storage space. I look behind the curtain and discover a boy who has found a mobile trolley filled with badminton equipment and Frisbees. He's trying to clear a path through the mess and bring the trolley into the main working space.

The children's materials exploration is part of my introductory task for our five-day workshop. In this task, I ask the group of ten to transform my video-camera, placed on a tripod, into a collective sculpture. The main purpose of this initiative is to support my research mission in this workshop. The idea is to see if the video recordings can help to retrieve interesting research data. From peers, I know that the presence of a video-camera (or any camera) easily disturbs children's natural

behaviour and expression. For this reason, I planned to make the video-camera less visible. Obviously, I want the children to be informed about its 'camouflaging', and involving the children in this decorating and hiding process became the way forward. I hoped that the current exhibition, *Lending Enchantment to Vulgar Materials* by artist Mark Leckey, that we had just visited on the second-floor, would help as inspiration for making the sculpture. Time is passing and the children are still into discovering the various materials. I reintroduce the question in order to make progress. I also start initiating the collective sculpture construction. I place the video-camera-on-tripod in a central position in the room and ask the children to add their individual creations onto the base. A first but major intervention happens when Lukas suggests involving the trolley he found in the sculpture. I enthusiastically confirm his idea and place the video-camera-on-tripod into the trolley, that has raised sides. It seems that the trolley is made for it because the tripod fits perfectly onto the bottom of the trolley. The video-camera-on-tripod is now a video-camera-on-tripod placed in a trolley with sides on four wheels. There's a wooden stick in front of the trolley for pulling it. The trolley is made of wood; its raised outer sides show the Wiels logotype in yellow. There is still extra space behind the tripod for putting more stuff into the trolley. This simple idea has a big consequence, for the video-camera-on-tripod has just become a mobile unit.

The boys assemble around the sculpture in progress whilst most of the girls are still occupied with finishing their individual creations. Davor starts covering one of the trolley's sides with aluminium foil. Leo brings in a piece of cloth to cover the front tripod legs. I ask for the meaning of the cloth: *Does it represent a body or is it the sculpture's dress?* Whilst Leo may just have wanted to hide the tripod legs, I unconsciously introduce the idea of the sculpture having a body. It inspires the boys to make a face. A circular shaped piece of cardboard is brought in as a face. I comment on the face being quite abstract and hard to recognise. Davor draws two eyes and a big smiling mouth in pencil—hardly visible—onto the cardboard face. The face has a hole right on the spot where the nose should be. I suggest making the hole bigger so we can place it over the camera lens that would

otherwise be covered by the cardboard face. After all, I had to make sure that my initial goal—making video recordings—wasn't lost in the final result. The piece of cloth falls off and the boys start reconnecting the cloth with the face by using a colourful crafted chain made by one of the girls. The current sculpture looks odd, primitive and naked. The girls haven't been much involved so far. I ask them to join and add their material experiments as well. There is a lot of discussion going on and things are added without a common plan. One arm is constructed on the right wing of the trolley whilst another child is making two arms on the front side of the trolley. Things fall apart and have to be reconstructed. Eliot becomes inpatient and starts playing with the sculpture-in-progress. Lukas takes a seat behind the tripod. He starts manoeuvring the video-camera handle. He orientates it towards Eliot's face as if he were filming him. Eliot acts as if he were being filmed. Davor joins in, pretending to act in front of the camera. The girls keep working on the sculpture whilst the boys are playing. Too many actors are involved in too many ways and things become chaotic. I feel the urge to increase my level of mediation. I interfere by suggesting they finish the creation process and move on to the next phase. The boys continue their play and the girls join in. Although the children referred several times to a human-like sculpture in the process of making it, the sculpture's final form shows few similarities to a human body. Still, in their play, they refer to the sculpture as if it were a person. The name Wiels pops up and the sculpture gets addressed as Mister Wiels. For now, it is clear that a new person has been born and an identity is being developed. As a follow-up of the previously discussed Canadian origin of co-facilitator Michael, Jeanne wonders what nationality Mister Wiels is. Is Mister Wiels maybe also from Canada? Some children claim he's Belgian. According to others, he comes from Canada. Leo claims he comes from outer space. A lot of different characteristics are allocated to our new group member without limiting his identity to a single one. Each of the children, and I, project our own desires onto Mister Wiels. The collective creation process moves into a collective identity-building of this imaginary person. The children now create narratives about who Mister Wiels is and what

he does. They also start testing his video recording capacities. The children take turns at sitting behind the tripod and directing the camera. I start understanding that our engagement with the video-camera has put the video-camera in a much more central position than the neutral background position I had planned for. It won't be easy to put the video-camera in a background position in the room, or to capture the overall activity in a discreet way. I reply to the children's interest in the video-camera's recording capacities by explaining the basics of how to record with the video-camera. I show them how to turn the camera on and off, how to save battery, how to manoeuvre the tripod, how to orientate the camera towards different focus points, etc. After the improvised basics of video-camera instruction, it is time for lunch break. I ask the children to give Mister Wiels a rest but promise we'll return to him after the break.

I built further on Mister Wiels's foreign roots—as attributed by the children—for introducing the afternoon activity. I had planned to make the children discover the neighbourhood's public spaces by doing an explorative walk. To the children, I say that Mister Wiels—whether he is Belgian, Canadian or from outer space—doesn't know the neighbourhood and has asked to be taken on a guided tour to discover his new environment. The children respond with loud enthusiasm. They seem happy guiding their new imaginary friend. I am happy that we have settled a plan for the afternoon that suits them and my own research plans. I realise that Mister Wiels makes a good bridge (mediator) between the children and me. So yes, Mister Wiels also became my new friend.

Analysis of the First Written Memorisation

In the present section, I analyse the workshop situation described above. This analysis aims to investigate the role of ambiguity for actualising a democratic process in participatory design practices with children. As I have already mentioned in chapter 3, the analysis focuses on four aspects:

1   Did the workshop actors experience an ambiguous workshop struc-
     ture and did they 'use' the emerging diversity of meanings for the
     actualisation of the process? The ambiguity categorisation (Gaver
     et al., 2003) constitutes a core part of this first analytical step.
2   How did I, as the designer and facilitator, introduce openness into
     the workshop's structural components and how did the different
     "forms of ambiguity" (ibid.) relate to openness in the components
     of the workshop structure?
3   How did the workshop actors deal with experiencing an ambigu-
     ous workshop structure and what were its effects for actualising
     a democratic process?
4   What other aspects obstructed the actualisation of a democratic
     process?

In my process of analysing my empirical material and giving meaning
to my findings, I identified four different *forms of negotiation* as ways in
which the workshop actors dealt with experiencing an ambiguous work-
shop structure. I also identified four *responsibilities* as other aspects that
can possibly obstruct the actualisation of a democratic process. In order to
bring my findings to the surface, I have—retrospectively—labelled certain
situations according to these different *forms of negotiation* and types of
responsibilities. The analysis also indicates whether the experience of an
ambiguous workshop structure resulted in a democratic process or not.
Although the analysis presented in this chapter mainly focuses on nam-
ing the research findings (i.e. forms of ambiguity, forms of negotiation,
responsibilities), I will draw them together in the next chapter in which I
will give meaning to these findings in the light of my research questions.

The situation explained in the *written memorisation #1 The Birth of Mister
Wiels* happened at the very start of the *Playful Monstration* workshop.
According to her plans, the facilitator assigned the child participants to
transform her video-camera into an artistic sculpture. The facilitator
offered a wide range of recycled materials for making the sculpture: pa-
per, cardboard, wire, glue, tape, scissors, textiles, rope, aluminium foil,
etc. With this assignment, the facilitator had a twofold goal. Firstly, she
wanted to involve the child participants to *camouflage* the video-camera
with the hope that the children would act in a more natural way in front
of the camera and in the research documentation. Secondly, she wanted
to help the child participants to get acquainted with each other (a new
group) and with art making (a new context).

Whilst the child participants were working on the assignment, the facilitator kept a semi-distant position. She observed and confirmed the participants' exploration rather than interfering in their creative process (e.g. she did not give feedback). The facilitator encouraged the participants' personal expression, hoping that this would make them feel comfortable in the newly formed group, the new art context, and the ethos of the workshop. Through her attitude, the facilitator aimed to safeguard the participants' artistic freedom and encourage their autonomy.

The facilitator introduced the assignment at the start of the workshop, when the child participants did not yet have any understanding about the specific art and workshop contexts that were new to them. Thus they did not have any idea about what was 'expected' in these new contexts they had entered, which made them feel insecure about creating the sculpture. As a result of this uncertainty, they limited their involvement to exploring the various materials. The facilitator encouraged the participants to take the next step and construct the actual sculpture. She suggested a wide range of possibilities and seemingly absurd proposals through which she hoped to give the message that 'everything is possible' and that there were no particular expectations that needed to be complied with. During the assembly of the individual sculpture parts, the facilitator did not express any judgement of whether something was good, whether it made sense, or whether it was aesthetic. Instead, the facilitator encouraged the child participants to express their personal meanings about the sculpture-to-be. Through this making process, the child participants developed creative autonomy which culminated in identifying the artistically camouflaged video-camera as their new imaginary friend whom they called Mister Wiels. The many child participants projected their individual interest upon this imaginary person. They also started to interact with the recording options: they explored different ways of making video recordings and by this means they started to self-document their activities.

Although the facilitator had clearly described the assignment, she had given a rather complex amount of information. In addition, the idea of turning a video-camera into an artistic sculpture was novel to the child participants. The openness in the assignment had a positive effect on awakening a conscious experience of "ambiguity of information" (Gaver et al., 2003). In addition, the great assortment of recycled materials and not prescribing any particular use introduced openness in material

which amplified the experience of "ambiguity of information" (ibid.). With this assignment, the facilitator introduced a multitude of contexts (i.e. art, research, and children's participation in public space). Some of these contexts were new to the child participants (e.g. research). The many and new contexts resulted in the child participants consciously experiencing "ambiguity of context" (ibid.).

Furthermore, the openness in the facilitator's attitude encouraging and confirming the child participants' creative explorations, generated openness in the child participants' role which had a positive effect on awakening "ambiguity of relationship" (ibid.).

The workshop actors experienced the assignment ambiguously. They were confronted with endless possibilities regarding how to turn the video-camera into an artistic sculpture. Some child participants started to test possibilities. Whereas some children followed their example, other child participants hesitated and waited. The facilitator made suggestions herself about how the child participants could further develop the sculpture. In her suggestions, the facilitator involved her personal agenda (in order to end up with a *camouflaged* video-camera and produce *better* documentation material). The facilitator also checked whether the child participants were happy with the way their different ideas were put into practice. The child participants and the facilitator continued to put their individual suggestions into practice without experiencing any hinder from the simultaneous actualisation of their meanings (see: negotiation with *co-existing meanings* in chapter 5). The sculpture resulted in an aesthetically poor[39] creation that was however rich in meaning. The child participants started to interact with the *sculpted* video-camera as their imaginary friend Mister Wiels. They also interacted with its video recording features and started to video record themselves. The facilitator started to see the benefits of interpreting the video-camera as a *friend* who generated trust and new possibilities for actualising the process. She also became interested in the children's self-recordings as an alternative source of research documentation. In this workshop situation, the actualisation of the process resulted in a democratic and diversity-rich process.

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When evaluating it according to conventional and/or professional art criteria.

#2 Interviewing the Parking Meter

The children take the lead in touring Mister Wiels—their *friend* and newly created video-camera-sculpture—through the urban neighbourhood of the contemporary arts centre. After crossing the zebra-crossing, and whilst lifting Mister Wiels's trolley base onto the elevated pavement, one of his arms falls off. We take a short break to fix him. We continue our explorative walk along the pavement. The children surround Mister Wiels like a swarm of bees hanging around their queen. There's a lot of traffic passing on the street beside us. Some cars honk whilst emitting their poisonous exhaust fumes. The children don't seem to be bothered. They enthusiastically interact with Mister Wiels. There is a lot of testing and playing with the camera, they record situations that do not seem special to me. Our first stop is caused by the end of the pavement. Nobody makes any attempt to direct where to go next. Shall we cross the street, continue to the right or take a left? Some children start with a nearby tree. Leo starts circling around the tree, his friend Darius follows. Sofie recites a poem about a tree. The tree becomes our first object of investigation. Many questions arise, many answers are formulated, and new activities are initiated. *Why are there trees in the city? What do we do with them? What is the meaning of trees? Are trees living beings?* Isabelle and Jeanne, the two older girls in the group are not pleased with this type of exploration. They can't connect to the activities initiated by the younger children and start disrupting them. After a private talk with me (facilitator) we understand that they need another challenge that corresponds to their age. After a short brainstorm, we decide that Isabelle and Jeanne don't have to participate in the activities initiated by the younger participants but can instead investigate public space in a way that matches their own interests and capacities. Isabelle and Jeanne decide to interview some people and report in written words and drawings. The younger child participants are fine with the girls performing a journalist role. The facilitator agrees on the condition that the girls stay within sight of the facilitator. We continue our walk and investigations: we wonder why a particular apartment has silver curtains, we talk with the neighbourhood agent, and

we interview a bike. Whilst the children have a discussion about riding bicycles in the city, co-facilitator Michael discovers a parking meter a bit further down the street. Michael proposes interviewing the parking meter. Before the children have the possibility to react to his proposal, I (facilitator) enthusiastically respond with a loud: *YES! I think this is a really nice idea. Let's go for it!* My decision abruptly closes the children's current discussion. We walk towards the parking meter.

Once we have arrived, I start orchestrating the interview.
Facilitator: *Can you please make a queue?*
Héé! All of you. Please stand in the queue!
Yes, nice, but a bit further away.
So, can all of you take one step backwards?
We are going to interview the parking meter.
Each of you will ask a question.
So, you ask your question to the parking meter and the parking meter will answer you.
Whilst saying this, I perform. I get close to the parking meter and pretend I am whispering my question. Then I put my ear beside the parking meter and act as if I am listening to the machine.
Facilitator: *Then you turn yourself to Mister Wiels.*
I orientate my body towards the video-camera, *and you tell Mister Wiels what the parking meter has answered you.*
Facilitator: *Afterwards, it is your turn to operate the video-camera.*
So, you move behind the camera and record the next person.
And you, who were sitting behind the video-camera, you move to the end of the queue.
And then the next one comes.
And the next.
So, each of you, in turn, will be able to operate the video-camera.
Is that OK?

One child-participant: *Yes.*

Facilitator: *OK, then we start now.*
Euh, are we already video recording?

Eliot is the first one in line. He asks his question in front of the parking meter. Then he turns towards the parking meter and pretends that parking meter is talking to him. He frowns as if the parking meter is talking too quietly. I ask Eliot to repeat the parking meter's answer aloud for the whole group. He does. I smile. When Eliot is done, Beatrice comes to the front and starts saying her opinion on cars and parking habits. I don't understand that she wants to build further on Eliot's story and continue the discussion. I tell her to get back in the queue because she's not the next one in line. I want to be fair towards the next one in line and therefore she has to wait for her turn. The children ask their question and invent an answer. They do so by re-enacting my body movements. First, they get close to the parking meter machine and ask their question. Then they put their ear beside the parking meter and pretend to listen to the machine. Then they turn their body to the video-camera and repeat the answer aloud. The second child in line is so much into performing that she doesn't know what to say. The children continue the interview. When I realise that the questions and answers are rather obvious—mostly dealing with how the parking meter works—I decide to interfere by asking questions that may help to lead the interview in another direction. *What's the parking meter's name? How long has he/she been standing here? What is the news of the day? Has the parking meter recently been in love?*

Analysis of the Second Written Memorisation

As in the analysis of the first written memorisation, this analysis focuses on how the workshop actors dealt with the particular "form(s) of ambiguity" (Gaver et al., 2003) through a specific *form of negotiation* and coping with certain *responsibilities*. I will present these findings here and further elaborate on their meaning in the next chapter.

The *written memorisation #2 Interviewing the Parking Meter* describes subsequent workshop situations in which the participants explore the local public space in the company of Mister Wiels. The planned workshop assignment asked the child participants to drift in their urban neighbour-

hood and identify public space issues. The facilitator proposed a *dérive* approach in the hope that this would encourage the child participants to take their own initiatives about where to go, when to stop, and what to explore. The facilitator also suggested taking the video-camera, reborn as Mister Wiels, on their walk. The child participants warmly welcomed this idea. During the walk, the facilitator encouraged the child participants to make suggestions about where to go, when to stop, and what to do. She also challenged them to undertake atypical explorations by overloading them with various fictional and non-fictional suggestions. The variety and contradictions in these suggestions forced the child participants to make their own choices. It also triggered them to be creative and make new suggestions. The child participants made their own suggestions about where to go, when to stop, and what to investigate. Although the facilitator tried to interfere as little as possible in their initiatives, the child participants' suggestions were subject to negotiation between the child participants and the facilitator. The facilitator tried to make sure that none of the child participants' initiatives was systematically excluded and that they did not cause any harm.

However, when the facilitator suggested interviewing the parking meter, she introduced a different attitude; one that is closer to a conventional teacher's role. She imposed explicit instructions about how the child participants should interview the parking meter. The facilitator also started to prioritise her own initiative and interest above those of the child participants. This new behaviour contradicted her previous attitude and behaviour. This confused the child participants. When one of the child participants suggested making a small reconfiguration in the facilitator's interviewing instructions, the facilitator rejected it without further consideration. The participants now understood that they were not 'allowed' anymore to make their own suggestions about where to go, when to stop, and what to explore.

At the beginning of the workshop situation, the child participants felt encouraged to be involved in decisions about where to go, when to stop, and what to do. The openness in the *dérive*-style assignment had a positive effect on awakening a conscious experience of "ambiguity of information" (Gaver et al., 2003). The *dérive* approach suggested using the city as material. This openness in material contributed to awakening "ambiguity of information" (ibid.). The *dérive* also left openness about what spaces they could use (within the limitation that it should be a

public space). Thus openness in setting also contributed to experiencing "ambiguity of information" (ibid.).

The facilitator had quite an open attitude; she left decisions regarding where to go and what to do up to the child participants. The child participants weren't used to being allowed to take an active role to that extent. The openness in the child participants' role enabled them to see and play their roles in new ways. The openness in the facilitator role contributed to "ambiguity of relationship" (ibid.). It also stimulated openness in the child participants' role, which, in turn, amplified the potential for experiencing "ambiguity of relationship".

Through the assignment, the facilitator opened up the public space context to be an artistic context (*dérive* and the Situationist International). At the same time, through openness in their role, the child participants initiated self-initiated play activities from which the facilitator didn't stop them. The openness towards various contexts (public space, art, and play) confused the child participants and contributed to awakening "ambiguity of context" (ibid.).

The workshop actors experienced ambiguity in relation to the assignment. This generated many possibilities about how to explore the assignment and public space. Those possibilities were simultaneously actualised without interfering with each other. For instance, some child participants stopped walking when they were faced with an intersection. The other child participants and the facilitator stopped as well. One child started to circle around a tree. Two other children followed his example. The child seated in the Mister Wiels trolley continued his video recordings whilst another child started to act in front of the camera. This triggered other children to join their video recording play. The camera boy started to interview some of the children. Some children were observing the street, the houses, and the children circling around the tree. Yet another child asked the facilitator what to do. The facilitator encouraged the child to explore the public space in whatever way she would like to. The girl looked at the children circling around the tree and started to recite a poem about a tree. In short, the assignment was conducted by actualising the diversity of meanings suggested by the various workshop actors. Thus this first situation resulted in a diversity-rich democratic process.

At a certain moment, two older girls started to express their dissatisfaction with the playful activities initiated by the younger children. These activities didn't seem interesting in their eyes and they didn't want

to take part. The facilitator explained to the two girls that everybody was free to suggest how they wanted to explore public space and that they themselves were free to suggest other ways that seemed interesting to them. The two girls agreed but felt uncertain about what to suggest (the openness was too open). The facilitator sensed that the two girls needed extra support to find out how they wanted to explore public space in a different way from the ways suggested by the younger child participants. With the facilitator's support, the two girls decided to explore public space as journalists. With the introduction of the journalist role, the child participants group split into two groups. The two older girls actualised their personal meanings (journalism) whereas the younger child participants continued to explore the public space according to their own interest (a more playful way). This means that the workshop actors actualised their different meanings at the same time but with a division into two groups, each actualising their personal meanings but with respect to the existence of the other workshop actors' meanings. This second workshop situation described in *written memorisation* #2 also produced a diversity-rich democratic process. A third situation points at the facilitator imposing her own meaning (when interviewing the parking meter) without further considering the meanings suggested by the child participants. This situation resulted in an undemocratic process due to the way in which the facilitator prioritised her own meanings without further considering the meanings suggested by the other workshop actors.

4.3
Recipes for unControl

I developed the *Recipes for unControl* workshop within the framework of the exhibition *Tryckverkstaden: Rum för skapande, samtal och distribution* (translated as: 'The Printing Workshop: Rooms for Creation, Conversation and Distribution') at the *Göteborgs Konsthall* in 2015. The art gallery is part of the neighbouring *Göteborgs Konstmuseet*. They are the main cultural institutions showing art in Gothenburg. Whereas the art museum focuses on both historical and contemporary art, the art gallery only shows contemporary art.

With *Tryckverkstaden*, the art gallery took a radical new approach in relation to the concept and practice of exhibition making. They transformed their exhibition spaces into a giant printing workshop, inviting a

diversity of groups to experiment, learn, share, exchange, and socialise through making printed matter. With this project, the art gallery was interested in investigating how an art institution can be made more accessible to an extended and more diverse audience. They aimed to realise this by testing alternative exhibition making parallel to introducing new ways of *visiting* the exhibition. Thus the art gallery designed an exhibition as a meeting and makerspace in which visitors were invited as *makers* in creative processes rather than only as spectators of creative processes and outcomes. The exhibition thus became a place for the exchange of experience and knowledge amongst visitors. To support this, the art gallery curated a programme with a mixture of activities (lectures, workshops, etc.). They invited various local and international partners to organise and facilitate those activities, including me: *Office for Public Play*.

I decided to use the museum's invitation to develop my research further. I developed the *Recipes for unControl* workshop in which I invited a group of teenagers to develop their participation in public space issues. With this workshop I also aimed to continue testing ways of introducing openness into my participatory design approach and analysing their effects for actualising a democratic process. The *Tryckverkstaden* context—the meeting and makerspace, the makers' role, the printing workstations, the library, the room for conversation, and the room for presentation/distribution—formed a great resource for exploring this. At the same time, the *Tryckverkstaden* context influenced the way I organised the *Recipes for unControl* workshop and the design of its workshop structure. For instance, the availability of the different printing workstations inspired me to ask the teenagers to express their opinions through making printed matter.

For this workshop, I recruited a fixed group of eleven English-speaking teenagers, aged sixteen, from the local international school. The *International School of the Gothenburg Region* (ISGR) is the main educational institution providing primary and secondary education in English for children aged six to eighteen. The school is mostly attended by students with an international background who have a short or long-term residency in and around the city of Gothenburg. The recruitment took place in dialogue with the school staff. The organisation of the workshop was a long and difficult process because my desired workshop conditions (a sequence of long sessions) could not be met by the school infrastructure. The workshop sessions took place during the students' art classes that were planned every two weeks for two hours. The school

only[40] offered three sessions in total. The teenagers' short and fragmented attendance limited my possibilities for designing a workshop structure that aimed for openness. Whilst the first workshop session was organised in the school, the other two took place at the *Tryckverkstaden* exhibition in *Göteborgs Konsthall*.

My main role in the *Recipes for unControl* workshop was to design and facilitate the workshop structure. I played an additional role in organising the workshop in dialogue with the two partners: ISGR and *Göteborgs Konsthall*. In order to develop better documentation of the fieldwork, I invited master's students from HDK's Child Culture Design master's programme as external observers (see *multiple-source observations* of the research methodology).

The Workshop

With *Recipes for unControl* I aimed to support a group of teenagers to develop their critical thinking about matters of inclusion and exclusion in relation to public space. Building further on Freire's "cultural circles" (Freire, 2013[1965]), the workshop aimed to work on the teenagers' "critical consciousness" (Freire, 2000[1968]) through individual reflection and group discussions. I replaced Freire's literacy approach with a design approach.

From prior investigation, I had learnt that teenagers do not always feel well understood by adults. This form of social isolation also manifests itself in teenagers' use of public space. With *Recipes for unControl* I invited a group of teenagers to reflect upon matters of inclusion/exclusion in public space that they themselves find relevant.

Because the workshop set-up paid more attention to the workshop process than reaching an outcome, I addressed the closing *Recipes for unControl* exhibition as part of the process. The *exhibition* was just another kind of meeting-place where the teenagers could further discuss their public space inclusion/exclusion issues with other citizens (visitors at the exhibition) by using the artefacts they had made during the workshop. In the context of this workshop, the term *Recipes for unControl*

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The time frame of this workshop was limited to the possibilities provided by the school with which I cooperated.

refers to the printed artefacts the young participants had made as *tools* for sharing and discussing their inclusion/exclusion issues in public space with each other and with other citizens. During the workshop, the young participants created *recipes*—which should be understood as their personal suggestions for dealing constructively with specific issues of inclusion/exclusion in public space. With their suggestions, their recipes, the teenagers aimed to challenge and maybe even *un-control* normative mindsets and behaviours that reproduce exclusion in public space. I also used the term *Recipes for unControl* as the title of the workshop and the closing exhibition hosting the public discussions about these issues.

In this workshop, I continued to explore openness in my participatory design approach by further developing certain approaches I had already tested in the previous workshop, as well as exploring some new concepts.

Openness in assignment—The workshop duration was limited to three sessions of two hours. The workshop aimed to result in a small exhibition, meaning that the assignments were rather goal-orientated. The limitations in time and goal needed to be countered with openness in the workshop assignments. Building further on Budner (1962), and as the facilitator, I provided new, contradictory, and/or complex information about the assignments as a means of creating openness in the assignments. For instance, in one of the assignments, I asked the young participants to make *body scans* that expressed their personal feelings in relation to issues of exclusion in public space. I invented a novel term, *body scans*, to create openness in interpreting this assignment. Similarly, as the facilitator, I introduced the complex term *borders and other forms of control in public space* for referring to matters of exclusion in public space. With this novelty and complexity, I aimed to encourage the young participants to rely on their personal values, interests, and backgrounds for making their own meanings out of the assignment instead of following preconceived and conventional meanings.

Openness in material—I further explored Nicholson's "loose parts" (1971). Firstly, I encouraged the young participants to use their bodies and different body parts as "loose parts" (ibid.) for creating artworks and expressing their subjective opinions artistically. By using body parts as *loose parts materials*, I aimed to challenge the young participants' conventional view of art materials and materials in general. For instance, in the *Body Scans* assignment, and in my role as the facilitator, I encouraged them to use their bodies to express their personal feelings about

exclusion in public space. In another assignment, I asked them to communicate their opinions by making gestures with their hands. In addition, I asked them to make a printed image that functioned as a *loose part* for creating a collective map to support their group discussion. This means that the young participants themselves, and as a group, had designed a tool for facilitating their discussion.

Another way in which I aimed to create openness in the material was by offering materials that were *new* to the young participants, without offering any instructions. For instance, I asked them to carry out an assignment by making printed matter. The *Konsthall* was set up as a big printing studio with different printing stations to choose from. Each station provided specialised material for working with a specific printing technique. The openness in the material was created by the plurality of options and more so because the facilitator did not provide the young participants with any instructions for applying these printing techniques that were new to them.

Openness in setting—In the *Recipes for unControl* workshop, the locations were determined in advance. The first workshop session was planned at the young participants' school and the two other sessions were planned at the local art gallery. In order to disrupt the young participants in their conventional interpretation of these places, I aimed to create openness in setting.

Because the workshop sessions were planned during their regular art classes, the first workshop session was supposed to happen in their art classroom. In order to disrupt the young participants' conventional interpretation leading to habitual actions and interactions, in my role as designer, I had asked the teaching staff whether we could use another room in the school. I asked for an atypical school classroom, like a large empty gym hall. This was not possible and instead, the teaching staff offered the classroom where the young participants usually had their music classes. I accepted. However, I assumed that the young participants would feel quite familiar with this classroom and therefore I wanted to create more openness in the setting and this by rearranging the interior of the music classroom in advance. Thus I had rearranged the interior, in my role as designer, by putting all the desks and chairs on one side which turned the room into an unusual empty space.

The local art gallery had turned its exhibition spaces into a giant workshop space. The floors were covered with paint stains, shoe prints, snippers, and scrap. The normally sterile white and empty spaces were

full of workstations, work equipment, and junk. The visitors wore all the same kind of painter's overall with colourful paint stains. The visitors were working—making printed matter—instead of looking at art works. This new and surprising set-up helped the young participants to interpret the space in new ways; according to meanings that transgressed the conventional view on and functioning of art galleries and museums.

Openness in the child participant and facilitator role—As the workshop designer and facilitator, I was aware that the partnership with the school produced a limiting effect on the workshop actors' interpretation. The school context challenged me to introduce openness into the workshop actors' roles. I aimed to create openness in the workshop actors' roles firstly by my attitude and behaviour as facilitator—that is, the specific way in which I acted and interacted with the young participants and their teacher. Secondly, I proposed a new work ethos for participating in the workshop sessions. I introduced these 'principles of collaboration' at the very start of the first workshop session. By activating this alternative work ethos, I hoped to disrupt the young participants' and their teacher's conventional interpretation of workshop actors' roles. With these alternative collaboration principles, I aimed to create a *free state* in which the workshop actors could act and interact in ways that differed from how they normally behaved in school. The 'principles of collaboration' consisted of three principles: 1) collaborating without hierarchy of knowledge, 2) collaborating according to the jester role, i.e., a critical friend, and 3) collaborating according to the workshop actors' personal initiatives. More information about the content of these principles can be found in the description of the third memorisation called *Empty Room with Principles*.

Furthermore, I tried to avoid the teacher playing her conventional teacher role because this would have had a limiting effect on the workshop actors' interpretations. Therefore, I intentionally gave the teacher a new role. In the *Recipes for unControl* workshop, I suggested that the teacher should undertake the role of taking notes, thus playing a rather *passive* part aside from the main workshop activities. By *passive* I mean the way she was expected not to interfere in the workshop activities but to observe them from the sidelines.

Openness in the workshop goal—Although in my role as designer I had announced that the three workshop sessions would result in an exhibition, I also made clear to the young participants that this was not

the main goal of the workshop. I explained to them that the main goal of the workshop was that they should serve themselves; their personal agenda. Thus the young participants had to express their personal goals including why they were participating in the workshop and how the workshop could support their personal interests and agenda.

The workshop process consisted of four main parts. The workshop took off with an explorative phase. This exploration consisted of the first workshop session with the young participants and a post-workshop session without them. In the first workshop session, I engaged the young participants in producing memories, expressions, and notes about their experiences of exclusion in public space. The third and fourth memorisations (#3 *Empty Room with Principles* and #4 *Body Scans*) are situated in this first workshop session. In the post-workshop session, I assembled the young participants' notes into a simple infographic map I called *Map of Borders and other Forms of Control in Public Space*. The infographic map consisted of three parts. In the middle part, I listed all the topics identified by the young participants. The list showed the young participants' input in categories (according to similarities in the topic) without naming these categories. Every piece of information was kept, including topics that were repeated. For instance, when seven participants had mentioned *age* as a border in public space, I repeated the word *age* seven times on the map. This allowed the reader of the map to understand the importance of a certain border by its frequency. On both sides of these centrally placed topics, the map contained a list of negative emotions in relation to these borders (right side) and a list of positive emotions (left side).

      The second workshop session started by my showing of the infographic map to the young participants. The map gave them an overview of their self-identified exclusion topics. The second workshop session consisted of two main parts: an individual reflection through printmaking and a group discussion on the basis of their collectively printed map. For the individual reflection, and in my role as facilitator, I asked the young participants to choose a topic from the map and to continue reflecting upon this issue through their process of printmaking. More specifically, I asked them to visualise their reflection and print it on a shared large sheet of paper (2×1,5 m). Although the young participants were free to choose the printing technique themselves, they all chose the same printing technique. Their collective print resulted in a second map called *Stories of Borders and other Forms of Control in Public Space*.

This second map formed the basis for a group discussion about their individual reflections. The fifth *written memorisation* (#5 *A Disturbing Voice*) is situated in this session. This session also included an exercise in which the young participants were asked to communicate their opinions with hand gestures and without words.

In the third workshop session, the young participants transformed the new insights that they had produced through the group discussion in the previous workshop session into creative recipes. With their *Recipes for unControl*, they each proposed their personal way of constructively dealing with specific issues of exclusion in public space.

The fourth workshop session aimed to produce the final presentation together with the young participants: an exhibition at *Göteborgs Konsthall*. Because the school only provided three sessions, I had invited the young participants to participate in this last session outside school hours. However, none of them chose to take part in this session on a voluntary basis. This last session was planned at the end of the school term, a very busy period, which may not have been a good moment. Because there were no young participants in this additional session, I organised the exhibition by myself.

The Written Memorisations and Their Analysis

Workshop Situation Specifications

The present section contains some specifications that will help to read the three selected workshop situations of the *Recipes for unControl* workshop. They are short reminders of what I have already explained in more detail at the start of 4.3.

The situation described in *written memorisation #3* happened during the first session of the *Recipes for unControl* workshop. The workshop situation took place in the music classroom at the young participants' school which was normally filled with chairs, tables, and different musical instruments. In this third *written memorisation*, I describe the start of the first workshop session. It is the moment when the workshop participants meet the facilitator for the first time.

The situation described in *written memorisation #4* occurred as a continuation of the third *written memorisation*. In this fourth *written*

memorisation, I describe how the young participants, the facilitator, and the teacher deal with the *Body Scans* assignment; how they express their emotions in relation to their experience about exclusion in public space. The workshop actors are still in the reconfigured music classroom at the ISGR school.

The situation described in *written memorisation #5* happened during the second workshop session. This second workshop session took place at the *Tryckverkstaden* exhibition at *Göteborgs Konsthall*. In this fifth *written memorisation*, I described the preparations and the start of the group discussion in which the young participants shared their individual reflections on matters of exclusion in public space. The preparations started with the young participants visualising their personal opinions by making printed matter. The preparations ended with collecting those opinions in a collective map. The map was used as a basis for the group discussion.

The following workshop actors took part in the third, fourth, and fifth *written memorisations*:
- The young participants: a group of eleven sixteen-year-olds, six boys and five girls, from the International School of the Gothenburg Region.
- The teacher: the students' art teacher.
- The designer/facilitator: myself; a researcher.
- The workshop assistants: a group of master's students in Child Culture Design from HDK in the role of external observers.

#3 Empty Room With Principles

The students occupy the dark narrow hallway. Their book bags block the passage. Noisy conversations fill the space. It's Monday morning, nine o'clock sharp. The art teacher invites the students to enter the classroom. She does not invite them into the *art* classroom where they usually have their art classes but into the opposite one, the *music* classroom, where they normally have music classes.

The students enter the room. They look around. Some giggle whilst others look slightly surprised. As the designer-researcher, I had removed all the tables and chairs leaving a large empty

space in the middle of the room. Whilst they enter, I try to start a conversation.

Facilitator: *Hello and welcome! As you notice, I have rearranged the space a bit for our workshop. Since we may sit and lie on the floor, I have taken off my shoes. You're welcome to take off your shoes as well. But I also understand if you don't feel comfortable and want to keep them on. It's up to you... what you prefer.*

Some students take off their shoes, others follow. Some keep their shoes on.

The students assemble organically into a group on one side of the room. They are a little nervous and full of anticipation. I break the silence by coming back to the reorganisation of the space.

Facilitator: *For this workshop, it's partly up to you to decide what we'll do and how you want to do this. So, we start with how to use this space. You can decide how you want to use the space; how you want to act in relation to this room. Do you prefer to sit, or stand? How will you sit and where? Or do you prefer to lie down on the floor? Is it really comfortable to work standing? Or what is the best way to position our bodies for good group collaboration? Where do you want me to sit or stand?*

After a while, the whole group sits on the floor. We all sit in different positions; one boy lies prone. We form a circle, one-third of the circle is taken up by girls and one third by boys. There is a huge gap left for me. I put myself in the middle of the gap so as to complete the circular shape. Unconsciously, I create distance between them and myself by aiming for this circular shape. I have put myself on an imaginary scene; I am the protagonist with an audience in front of me. I am happy when my assistant joins the circle so as to close the gap between the students and myself. The teacher sits down outside the circle. I ask her to join the circle so as to close the gap even more. I place my laptop next to me, open my slideshow and introduce the workshop.

After telling the students what the workshop is about, I explain to them how I expect us all to *work together*—they and I: us.

I propose the three 'principles for collaboration' that I had pre-defined as part of the workshop structure.

Facilitator: *First principle: there is no hierarchy of knowledge but many kinds of knowledge. Knowledge is based on personal experience. The artist (referring to me as workshop facilitator) doesn't know more than you, the participants. The artist and workshop participants all know stuff. We all know different things, based on our personal background and experiences. Since we all know stuff, we can all learn from each other. To exchange personal experiences is to produce knowledge.*

Facilitator: *Second principle: play the jester role. The jester or licenced fool is the character who acts as a critical friend of a king. The jester takes a critical stance whilst supporting the other person as her/his friend. Her/his critique is always constructive. On the other hand, playing the jester role also situates us in a societal context. We are all part of a system (culture) that works according to unspoken rules and social norms. When playing the jester, we acknowledge the existence of those rules and norms. However, it doesn't mean that we have to reproduce them without critical questioning. Thus, when playing the jester, we acknowledge our agency by questioning, and possibly rejecting or altering, our taken-for-granted values in our everyday life practices. We do so in a non-violent way through play, irony, and critique.*

Facilitator: *Third principle: redefine our collaboration by initiating alternative ideas for action. If you don't agree with how the workshop structure has been designed—that is, about how our collaboration has been planned; both the what and the how—you can propose your own rules that suggest alternative ways. You can suggest your own activities and methods that help to actualise the overall workshop goal—that is, to identify borders and other forms of control in public space and consequently find creative ways for dealing critically with those borders.*

The latter invitation, encouraging the participants to re-configure the predefined workshop structure, was supported by a voting system and a *note-taker*, the teacher, who documented how the participants transformed predefined workshop *rules* into new ones.

Analysis of the Third Written Memorisation

As in the analysis of the previous written memorisations, the present analysis focuses on how the workshop actors dealt with the particular "form(s) of ambiguity" (Gaver et al., 2003) through a specific *form of negotiation* and *responsibilities*. I will present these findings here and further elaborate on their meaning in the next chapter.

The situation explained in the *written memorisation #3 Empty Room with Principles* occurred at the very start of the first session of the *Recipes for unControl* workshop. The designer had chosen to organise the first workshop session in the school building and more specifically in a room that was normally not used for their art classes. In order to de-familiarise the space even more, the facilitator had transformed the music classroom into an almost empty space. The facilitator had prepared this before the workshop started. When the young participants entered the space, they got confused about the reconfigured space set-up. It disturbed their usual interpretation of the space, including their habitual behaviour. This, in turn, made them aware of their usual behaviour *with* and *within* the space; about how they typically interacted with other teenagers (their colleagues/co-students) and with their teacher. The facilitator asked questions that further encouraged the young participants to make new relationships with and within the space. She also motivated them to use their personal values, interests, and backgrounds when making those new relationships. For instance, the facilitator asked the young participants where they wanted to position themselves in the space and what body posture they wanted to take. This confused them even more because they were not used to thinking consciously about their position and posture in a particular space and more so because they were not used to involving their personal values, interests, and backgrounds in the school context (at least not to this extent). The facilitator did not discourage collective action but she supported the participants in making individual choices. The young participants decided to sit in a circle on the floor. This *collective* decision was not made through a verbal discussion but by *doing*—i.e. testing and checking; a few of them sat down on the floor, others followed and created a circle. There were individual variants within this collective decision, e.g. some decided to lie down whereas others pre-

ferred to sit. With those new spatial relationships, the young participants consequently opened up for making *new* relationships with each other and gradually also with the facilitator and the teacher. The ice was broken. The young participants started to relate to each other in a less formal way. However, they were a bit more reserved when making new relationships with the facilitator (being a new person to them) and the teacher (being a well-known person to them). In other words, whilst their new interactions with the space and the other participants became more personally driven, they still interpreted the facilitator's and teacher's presence mainly from an educational context. For instance, they kept approaching the facilitator as a source for educative consultation and they kept seeking for confirmation from their teacher, e.g. "is this the way we're supposed to sit?". The participants thus mainly preserved a conventional relationship with the teacher; a relationship based on an adult-centred and hierarchical view of knowledge. They addressed the adult designer/facilitator in a similar way. They perceived and interacted with the facilitator as a source of knowledge that had more validity than their own knowledge and more rights in decision-making. The participants who perceived themselves in a subordinate position to adults, as they were used to doing in the school context, also placed themselves in a subordinate position in the workshop collaboration and process. Furthermore, although the facilitator had informed the teacher in advance about her approach to openness, the actual application surprised and confused the teacher.

According to her plans, the facilitator introduced a set of 'principles for collaboration'. With these principles, the facilitator aimed to disrupt normative hierarchical relationships and encourage the workshop actors to develop new and alternative relationships. The three principles promoted the collaboration of all the workshop actors according to "intellectual equality" (Rancière, 1991[1987]). This involved taking a critical but friendly stance (see "agonistic plurality"; Mouffe, 2000), and using their right to express their own opinions and initiatives within the collaboration (see article 12, UNCROC, 1989). With these principles, the facilitator hoped that the young participants would critically question their conventional child–adult relationships and interactions in the workshop collaboration, including its unbalanced teenager-adult power relationships. The young participants accepted these principles although they were uncertain about how they could put them into

action[41]. The facilitator set up small exercises that encouraged—sometimes even forced—the young participants to make their own decisions. For instance, she asked them to choose whether they wanted to take their shoes off or keep them on[42]. Such exercises were easy-going in the sense that they supported the young participants' expression of their personal opinions without involving too much risk-taking. Furthermore, the facilitator invited the teacher to perform the role of a note-taker. The teacher accepted this invitation.

The facilitator awakened "ambiguity of information" (Gaver et al., 2003) by introducing openness into the workshop setting, e.g. her unconventional space set-up and her atypical questioning regarding the young participants' positioning and postures within this space.

In addition, the absence of instructions from the facilitator regarding how the young participants should act and interact with and within this reconfigured space helped them to develop a new and more active relationship with the workshop structure, resulting in a conscious experience of "ambiguity of relationship" (ibid.).

The young participants experienced ambiguity in relation to the setting. This generated many possibilities for how they could use the space,

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The 'principles for collaboration' were meant for all workshop sessions. Therefore, we need to look at how the participants worked with these principles during the overall process—that is, the first and following workshop sessions—if we want to have a better understanding about their effect. When looking at the effect of these principles during the overall workshop process, I have noticed that the idea of equal knowledge seemed hard to accomplish. The participants felt free to take a critical stance towards the workshop question (public space) but it was unclear to them that they could also take a critical stance towards the workshop collaboration. Furthermore, it felt a bit forced and unnatural for them to make their own rules for collaborating in the workshop. However, the young participants did take their own initiatives but in a less formal way. They informally tested new ways of collaboration through trial and error, and through action and reaction. Finally, the facilitator's reconfiguration of the space and other design interventions (Halse & Boffi, 2016) like the small exercises she initiated, e.g. 'taking their shoes off?' and 'what posture/spatial position to take?' seemed to initiate new relationships with and within the space more easily than initiating new rules for collaboration through the third of the 'principles for collaboration'.

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In Sweden it is a common habit to take your shoes off when you visit somebody at home even when you do not know the person very well. However, this habit does not apply to public and semi-public spaces like schools.

where to stand, how to stand/sit/move, etc. They actualised their personal meanings but with hesitation. This hesitation resulted in their actualising one common meaning as a group. The young participants' meanings, the facilitator's meanings, and the teacher's meanings were simultaneously actualised without interfering with each other. However, the young participants also made sure that their new meanings did not interfere with the school context of which they still considered themselves part. In other words, the school context had a limiting effect on their interpretation. As a result, they limited their interpretation according to their conventional interpretation context (the school) which reproduced habitual actions and interactions or new actions and interactions that did not represent their personal values, backgrounds, and interests but those of the school (see: *disambiguation in favour of other(s)* in chapter 5). Because the young participants restrained themselves from introducing their personal values into the collaboration, the process was actualised as an undemocratic process.

#4 Body Scans

We sit on the wooden floor of the music classroom: the students, their art teacher, the workshop assistant, and myself as the workshop facilitator. Our seated bodies make an organic circle. The circle is constantly being reshaped by our moving bodies, because we constantly change our uncomfortable seating positions into new body postures. Some students use their arms to support their heads, others use both stretched arms as to support their backs. Legs are kept in front, sideways or crossed. Three boys lie prone.

I introduce the first exercise of the workshop. With this assignment, I aim to introduce the 'public space borders' topic. I also want to make them comfortable in using their body language, and by doing so develop new relationships within the group. I start by saying (facilitator): *for this exercise I first want you to memorise a particular encounter you had with a visible, invisible or hidden border in public space. You don't have to tell us what this encounter was about but I want you to think about the emotion it evoked inside of you. I want you to express that emotion through what I call a 'body scan'. A 'body scan' is a visualisation you make by fixing your body for one minute in the same posture on the floor. You*

define what that posture is but it should be related to your border emotion. The scan is made virtually by each onlooker who interprets and memorises your bodily expression.

I continue: *Your face is part of your body. You can tell a lot with facial expression but think about all the other body parts you have and can use in various ways to fully express your border emotion.*

I finish the brief by saying: *Each of you will produce body scans in turn. So, one person will make an expression in the middle of the circle whilst the others watch and scan. If you do not want to make an expression with your body, you don't have to. It's up to you to participate in this exercise or not.*

The assignment sets one student giggling, another observes her peers to detect their reactions. Some have a smile on their face, others look serious. Whilst one student frowns, another looks with sparkling eyes. Without further explanation, I get ready to start whilst the students stay in position.

The students address me with their questions:
Leona: *On the floor?*
Facilitator: *Yes... on the floor.*
Paul: *What side of our body should we show, frontal or profile?*
Facilitator: *You can choose.*
Max: *On the back.*

Then, the room becomes filled with their voices. The students start chatting about what they may do. I move a table towards the middle of the room to install a still photo camera. I want to make my *scans* with a photo camera to preserve their body expressions for documentation purposes. In the meantime, the students have started a discussion about who is to go first. Suddenly 'going first' becomes a big issue. Nobody dares to start.

The teacher clears the obstacle:
Teacher: *OK! I'll go first!*
Facilitator: *If you 'can' participate? We have to ask the students if you're 'allowed' to participate.*
Students: *Yes, she can.*

The first body scan is made by the teacher. The facilitator directs the scanning. She helps the performers move their bodies into the right scanning zone—that is, the space where the camera can take identical pictures of all body postures.

Facilitator: *Are you ready?*
Teacher: *Yes.*
Facilitator: *OK, here we go. I press the button ... beep-beep-beep... I am scanning... keep in position... beep-beep-beep...*
Facilitator: *Yes, thank you! We're done.*

Each scan is responded to with laughter and excitement and re-warded with applause. The students get curious about what posture the next participant will take. The students are amused, start relaxing and open up for informal discussion. The discussion deals with their participation and body postures rather than with the emotions they experience in relation to the borders they have encountered in public space.

Scan 03
Facilitator: *Can you move a bit more to the right?*
Facilitator: *OK, that's good! Are you ready?*
Luna: *Can I cover my face?*
Facilitator: *Yes, you do whatever you want.*

Scan 05
Two students both make an attempt to go next.
Leona: *I can go.*
Ida (simultaneously): *I can go now.*
Students, all: *laughing*
Max: *Guys, this is a democracy. We have to vote for who goes first.*
Leona: *You can go first.*
Ida: *Can we go together?*
Facilitator: *Yes, sure!*
The students have a short talk about what to do.
Then, Leona whispers to Ida: *Let's just curl up our bodies and hide our face.*
Ida nods her head in agreement.
Ida: *Can we be in profile?*

They both lie down on the floor with their bodies in profile, facing each other. They both get into foetus position and hide their faces by pulling their long hair over them.

The students encourage two boys to go next and make a scan together. They are doubtful. Harry interprets this as a 'no' and moves to the middle of the room to make his body scan. When that body scan is made, the two boys, Vijay and Arjun, are ready to make their scan. They move to the middle of the room. Some students laugh. Vijay and Arjun move very slowly towards the middle; they act in a controlled and synchronised way. When both boys are well positioned for the camera, Vijay makes a minimal body posture by crossing one leg over the other. Another boy student laughs at him.

Vijay (defensive tone whilst being insecure): *Whoo! What's wrong with that!*
Facilitator: *No, that's great!*
Vijay (defensive tone): *See!*

When his body scanning partner understands that the posture is 'accepted', he moves his body into the same position.

Facilitator: *Are you going to imitate him or will you do something different?*
Arjun (insecure): *I will do the same because that's how it is. But I can also do like this...*
and he places both palms against each other and makes an Asian greeting. Vijay imitates him and they make a greeting together. The other participants laugh and applaud.

When all the participants have made a body scan, they assume the exercise is finished so they start a discussion related to the photo material produced.
Paul: *What are you going to do with the photos?*
Facilitator: *I use them as documentation for my research study. But, yes, good questions. What are 'we' going to do with the pictures? Do you want to use them for something else? Do you have a suggestion?*
Whilst with my questions I want to encourage the students to make proposals about what to do next in the workshop with those

photos, most of the students interpret my questions as an attempt to make them guess a predefined plan.

William: *Hang them all on the wall?*

Max: *Or make it a fridge map!*

Paul: *We can put them all together so that we can see all our body postures together?*

The facilitator does not provide an answer; because she doesn't have one. In a way, it seems that the students expect the facilitator to have a concrete plan about what to do next with those photos. In the meantime, the facilitator has moved to the middle of the room, lain down on the floor and asked the group if somebody wants to check if she is located in the right 'scanning zone' and if somebody wants to take a photo of *her* body scan. The workshop assistant jumps in. The students become silent as if they didn't expect the facilitator to participate as well. They also seem to feel uncomfortable about how to react to her body posture? Their faces seem confused: should they applaud? Is this the way they were expected to have done their body scan?

When all scans have been made, the buzz resumes. The groups seem looser than at the start of the workshop, they are having an informal discussion about the whole experience. They make jokes and laugh. One of the boys makes a short sound intervention with one of the drums.

Analysis of the Fourth Written Memorisation

As in the analysis of the previous written memorisations, the present analysis focuses on how the workshop actors dealt with the particular "form(s) of ambiguity" (Gaver et al., 2003) through a specific *form of negotiation* and *responsibilities*. I will present these findings here and further elaborate on their meaning in the next chapter.

The situation described in the *written memorisation #4 Body Scans* also occurred during the first session of the *Recipes for unControl* workshop. According to plan (i.e. the designed workshop structure), the facilitator assigned the young participants to make *body scans*. The assign-

ment was clearly formulated. The workshop actors were expected to express their emotions in relation to a particular public space *border* by using their whole body. Despite the clear communication, the instructions provided a relatively large amount of freedom about what to express and how to do this. The young participants were asked to make a personal choice about 'what emotion' related to 'what public space border'. They were also free to choose how to express this with their bodies. The facilitator did not provide examples about what a body scan is, nor did she have particular expectations about what a body scan should be. For the young participants, the openness about how they could deal with the assignment generated many possibilities; too many possibilities. It produced a situation in which they felt uncertain. The facilitator tried to comfort them by encouraging them to build on their personal values, interests, and backgrounds whilst stressing the absence of expectations. She encouraged them to experiment with trial and error. The teacher, who had also noticed the young participants' uncertainty, wanted to help them in her own way. She did so by giving them a concrete example. In other words, she took the lead and performed the first body scan. The young participants followed her example. Their body scans showed different emotions but did not radically differ from how the teacher had used her body. The facilitator registered each body scan with her photo camera for documentation purposes. She did not formulate an opinion on whether the bodily expressions were aesthetically interesting but kept encouraging the young participants to express their personal meanings. After a while, some of them suggested performing their body scan in a different way. The facilitator *allowed* and encouraged this initiative. For instance, whilst the facilitator had originally asked the young participants to make individual body scans, she supported the initiative by two of them to make a body scan together as a pair. The openness in the assignment enabled the young participants to take ownership of defining what a body scan was through their individual actualisation. This ownership increased their agency. At the same time, the teacher's body scan seemed to function as a role model which inspired as well as limited their body expressions. Because the facilitator did not want to function as a role model, she made a body scan at the end; after all the young participants had made their body scans. With her body scan, the facilitator wanted to show them that she took part in her own assignments just like them.

Although the facilitator had clearly described the assignment, the novelty of the assignment generated openness in interpretation. The openness in assignment had a positive effect on awakening a conscious experience of "ambiguity of information" (Gaver et al., 2003). Whereas on the one hand, the teenagers were certain about 'what public space border' and 'what emotion' to express, they were uncertain about how to express this with their bodies. Furthermore, they were not used to creating meaning or communicating with their bodies in an educational context, not even in an artistic context. Thus the openness in material amplified their experience of "ambiguity of information" (ibid.).

During the body scans, the facilitator did not communicate her opinion about the content of the body scans or whether they were aesthetically interesting. Instead, she encouraged the young participants to express their personal meanings and incorporate their personal values, interests, and backgrounds. The openness in the facilitator's and the young participants' roles awakened the conscious experience of "ambiguity of relationship" (ibid.). The "ambiguity of relationship" (ibid.) created a dilemma for the young participants about whether they should take a more active and responsible role in decision-making or whether they should assume a more conventionally docile but safe role.

Furthermore, the facilitator, building further on her recently launched 'principles of collaboration' tried to establish a new work/collaboration ethos that differed from how the teenagers were used to interacting with each other and with the adults in their school context. However, the presence of the teacher reproducing a conventional teacher role disturbed the development of this new work/collaboration ethos and kept reintroducing the school context. In other words, the young participants' mindsets, actions, and interactions were continuously subject to two contradictory contexts. This "ambiguity of context" (ibid.) challenged them to respond to both contexts or prioritise a certain context.

The workshop actors experienced ambiguity in relation to the assignment. The diversity of meanings generated many possibilities about how they could conduct the assignment. In other words, they were free to perform their body scan however they wanted. This means that the diverse meanings/possibilities were simultaneously actualised without interfering with each other. For instance, some young participants did not want to show their faces, others wanted to make body scans together. In this situation, the workshop actors' diversity of meanings was

simultaneously actualised and resulted in a diversity-rich process. The fact that each of the workshop actors was given a separate time slot and did not have to interact with other workshop actors when performing her/his individual body scan made it easier to actualise a diversity of meanings. Although we can consider this process being actualised as a diversity-rich process, we need to question critically how *free* the young participants actually were to express their personal values, interests, and backgrounds, given the prior intervention of the teacher (role model) and the closed interpretation space provided by the school.

#5 A Disturbing Voice

There is a busy atmosphere in *Göteborgs Konsthall*. The art gallery doesn't look like it normally does. The quiet white spaces are now filled with colours, conversations and activity. The art gallery's main space now contains stations where different printing techniques can be practised. Each printing station is swarming with visitors; young and old are present. I am here with eleven students from ISGR, the *International School of the Gothenburg Region*. I have invited these teenagers to *Konsthall*'s press workshop as part of the *Recipes for unControl* workshop they are taking part in. The participating teenagers all wear white work aprons provided by the art gallery, just like all other visitors. In one way, the aprons make them look like serious scientists but the colourful paint stains betray their artistic ambitions. The work aprons are provided by *Konsthall* for all visitors who want to take part in making printed matter. The many white work aprons make the art gallery resemble a large printing factory.

Within the *first* workshop session, I had asked the teenagers to identify boundaries and other forms of control they encounter in their local public space. They are now busy visualising how they experience one such boundary. Although they could choose from many printing techniques provided at Konsthall, they all choose to make linocuts. For this particular printing technique, they have to engrave the image directly on the printing plate. Another challenge relates to incorporating the image and text in mirror image. The teenagers experience how the printing plate and engraving pen behave differently from

the pen and paper they are used to. The pen creates wider lines compared with an ordinary pencil. It can also slip easily, and by doing so possibly create an undesired line. Erasing lines isn't possible either. The nature of this printing technique means that the teenagers cannot build on their habitual drawing skills. The quality and style of their usual visual language are hampered by the newness of the linocut technique.

The teenagers work; they are concentrated, they discover, they sigh, they ask for assistance, they try again. Strong, primitive images arise. This creates frustration, intertwining with their excitement. When the workshop participants are finished with their engraving process, they roll paint over their printing plate. I then guide them towards a large sheet of white paper (140×100 cm). It serves as basis for their collective map, soon to be printed. The paper is empty with the exception of the title *Stories of Borders & Forms of Control in Public Space*, pre-printed on top of the page. The students, one by one, choose a spot on the paper and place their inked printing plate there. When everybody has positioned her/his printing plate, it is finally time to make the print. I ask some students to volunteer to move a big heavy roller towards the paper. The printing roller is about one metre long with a diameter of fifty centimetres. It is filled with pebbles to create pressure. It is so heavy that they can hardly move it. Finally, four of them succeed in placing the printing roller in front of the empty white paper. Ida and Luna kneel behind the roller. They are ready to start rolling but it is too heavy for them to move it. Peter joins them and soon nearly the whole group helps to roll the majestic roller over the large paper sheet. They are both excited and curious to see the result.

The roller passes, and the teenagers remove their printing plates. The print shows a series of black squares, positioned at different angles. Each of the black squares contains an image and/or word(s). Some images show abstract forms, others are more figurative. Some images show humans (people in action or portraits), others represent objects. Some images only contain visuals, others have words as well. Because some printing plates were inked with more paint than others, some of the printed images turned out raven black in contrast to a majority of greyish images. Some images show void because the printing pressure

was not even. The diversity of the different printed images is brought into a new unity on the large sheet of paper. The cohesion of the collective artwork is strengthened because all the teenagers had chosen to use black paint. Seeing the individual images on a common base also allows new relations to be made between its different parts.

The students evaluate the collective result and their contribution to it. Their discussion focuses on technical aspects of the printed result. Some are satisfied whilst others express disappointment because of differences in grey tones and void spots. Being used to perfect *Photoshop* images, they interpret the irregularities caused by manual crafting as their not having succeeded in making *good* prints. I try to soften their disappointment by saying that it is not the workshop's intention to judge the artistic qualities of the printed map. The aim of the *Stories of Borders & Forms of Control in Public Space* map is not to serve as artwork as such but as a (re)source for a subsequent group discussion in which the teenagers can express and exchange their experiences and opinions in relation to the different borders and forms of control they have encountered in public space.

Whilst saying this, I suddenly realise that time is running out. Soon, the teenagers will have to head back to school, to their next class. Therefore I introduce the final planned activity of this workshop session, the actual group discussion. I give the teenagers the assignment of discussing how they experience and deal with borders and other forms of control in public space. I also explain to them how the *Stories of Borders & Forms of Control in Public Space* map relates to this discussion. The collectively-made print will serve as a basis for this discussion. The teenagers are asked to *read* this map—they can read the map according to an individual image, a combination of selected images or the map as a whole—and interpret an individual image/a combination of images/all images together by relating to their own backgrounds. This interpretation is then open to discussion by other participants.

I then explain my role. I will mediate the discussion—this is, make sure that everybody feels comfortable with their contributions and that each of them can make contributions. I may also want to insert questions that encourage their critical thinking

but I do not want to judge the content of their contributions. Ivan starts by explaining his own printed image. He wants to discuss the public space border he identified himself. He refers to the symbolic representation of his printed image, a lock. The teacher responds immediately by giving her feedback. She does so by assuming her normal teacher role—i.e., she acts as if she is the (only) one who knows and the (only) one with a feedback role.

I feel that the teacher's involvement has a closure effect on the group discussion. Her voice and attitude disrupt the informal atmosphere. I feel discouraged; it seems that all previous efforts working towards this group discussion are being *destroyed* in one blow. I don't know how to react. I don't have an instant solution for reviving the teenagers' active involvement in discussing their opinions about the public space borders they had previously identified. Different thoughts flash through my head: it is not the first time the teacher has interfered in such a way ... I should ask her to stop doing this ... there is not much time left, so I guess it is better that I say it sooner than later... but I can't say it now, in public, when the students are here... I guess it is probably safer that I don't make a point about it now or maybe never ... But why shouldn't I? Is it because she's an adult and she should know this herself? Is it because I don't want to undermine her authority as a teacher? Or is it because I still need her cooperation for the next workshop session? ... On the other hand, I have not clearly informed the teacher about my approach, nor have we discussed her role during the workshop. So, I guess this is something I need to work on in the future ... Maybe it is best that I discuss this together with her after the workshop ... I am not sure yet, I have to think it over.

Analysis of the Fifth Written Memorisation

As in the analysis of the previous written memorisations, the present analysis focuses on how the workshop actors dealt with the particular "form(s) of ambiguity" (Gaver et al., 2003) through a *specific form of negotiation* and *responsibilities*. I will present these findings here and further elaborate on their meaning in the next chapter.

The *written memorisation #5 A Disturbing Voice* took place during the second session of the *Recipes for unControl* workshop. The designer had chosen to organise this second session in *Göteborgs Konsthall*. The *Tryckverkstaden* exhibition had transformed the art gallery from its conventional use—a space where art is shown and seen—into a makerspace in which visitors were invited to make printed matter, hence make art. As a result, when the young participants entered *Göteborgs Konsthall*, they were confronted by a different environment compared with their ordinary visits to an art gallery. Thus the *Tryckverkstaden* exhibition invited them to work instead of being only spectators. Although I had informed the young participants in advance, it was still an adjustment for most of them. The facilitator had explained the assignment clearly. She asked the young participants to make their personal choice in the list of public space issues (in the previous session, they had identified their personal issues in relation to exclusion-inclusion in public space) and express their opinions about this issue in a printed image for which they were free to choose a printing technique provided by the exhibition set-up. Although the assignment was clearly formulated and the young participants were certain about what public space issues to work on and what to say about them, they were uncertain about what printing technique to choose and how to make the printed matter. Due to their uncertainty, they all chose to use the same printing technique. And because there were no instructions provided on how to work with those novel printing techniques, the young participants searched for know-how amongst themselves. Their uncertainty strengthened the social bonding of their pre-existing group. Some of them asked the facilitator for technical support, aesthetic judgement, or confirmation of their ideas. Although the facilitator did not want to tell them what to do or how to do it, she made an effort to provide comfortable and secure conditions that aimed to help the young participants to deal with those uncertainties. They started to have small dialogues about the content they were working with, they also gave each other technical support and aesthetic assurance. They started to become more self-organised as a group by e.g. showing each other how to ink the plate and collectively move the roller over the paper. The facilitator was a part of this group but without taking a leading role. However, their balanced interaction got disturbed when the facilitator stepped into the conventional adult 'timekeeper' role and the teacher returned to a conventional evaluator role.

The openness in setting had a positive effect on awakening a conscious experience of "ambiguity of information" (Gaver et al., 2003). The plurality of meanings about the space encouraged the young participants to subject the space to new uses (e.g. making art instead of seeing art). The novelty of the material available in the *Tryckverkstaden* exhibition (its stations for different printing techniques) amplified the experience of "ambiguity of information" (ibid.).

In addition, the art gallery did not only open up new possibilities for how the young participants could use the space but also introduced a new context for interpreting the workshop and the workshop structure. In other words, the new setting awakened openness in the context (the art gallery as a working space), contributing to "ambiguity of context" (ibid.). Thus the young participants got confused about whether to interpret the workshop goal in the light of their educational engagement or their participation in the workshop imposing its own collaborative ethos. In addition, their involvement in art making resulting in an exhibition at the art gallery introduced yet another context: an art context. On one hand, this art context opened up for producing new, alternative thoughts and behaviours that complemented or countered their conventional thoughts and behaviours induced by the school context. On the other hand, the long-established school context was hard to remove and continued to exert its influence. Furthermore, the particular set-up of the printing workshop[43] providing different print workstations without providing instruction or assistance generated openness in the young participants' roles. The facilitator did not treat them as empty vessels but approached them as capable beings who can experiment and create printed matter in their own way. In addition, she encouraged them to involve their personal values, interests, and backgrounds. The openness in their role resulted in experiencing "ambiguity of relationship" (ibid.).

The young participants experienced ambiguity in relation to the setting and the material. This generated many possibilities for how they could use the space and how to use the printing stations. This generated quite some openness; much more openness than they were used to from

[43] Although I have consistently used the term workshop in the context of a meeting at which a group of people engages in intensive discussion and activity on a particular subject or project (Lexico.com, 2019), I refer to the meaning of the workshop here as a physical space in which printed matter is produced.

school. The uncertainty made them choose to actualise one common meaning as a group. They also relied on the group for other meaning making. The facilitator tried to direct their interpretation as little as possible. Similarly, the teacher did not participate in the process, hence she did not direct their interpretation. However, both the facilitator and the teacher interfered in other ways thereby reducing the young participants' interpretation. The facilitator limited their interpretation when she controlled the scheduled time. The teacher limited their interpretation when she assumed a conventional, evaluating, teacher role reproducing power hierarchies. Thus the diversity of meanings was not negotiated with respect to the workshop actors' freedom. The young participants prioritised the school context above their personal values (see: *disambiguation in favour of other(s)* in chapter 5) resulting in an undemocratic process. The physical absence of the school building wasn't enough to get the participants out of their usual school-based mindset and behaviour. The presence of the teacher, the presence of their school colleagues, and the school's time regime all contributed to their ignoring the openness introduced by the facilitator, hence continuing to interpret the components of the workshop structure according to the school context (see: *disambiguation in favour of other(s)* in chapter 5).

4.4
Dialogue Shapers

I developed the *Dialogue Shapers* workshop within the framework of the *Gangmakers & Koplopers* project (translated as: 'Pace-setters and Front-runners'). The *Gangmakers & Koplopers* project originated from *Trage Wegen*'s desire to improve the way they involve children in their participatory projects on slow mobility. *Trage Wegen* (translated as 'slow paths') is a non-profit organisation based in Ghent, Belgium. They focus on soft mobility by supporting the existence, maintenance, and development of slow paths in Flanders. Whilst working on a network for soft mobility in the city of Ghent, in participation with its users, the organisation realised their approach could accommodate child users in a better way. Therefore, *Trage Wegen* decided to set up a parallel track focusing on children's participation. They approached two other organisations that had previous experience of working with children in participatory ways: *dasKunst* and *Office for Public Play*. *DasKunst*'s activities involve both art and

education. This Ghent-based non-profit organisation offers accessible and experimental probing of different art languages for children and teenagers between six and thirty years old. *Office for Public Play* is the platform I have set up for working on children's participation in public space issues and conducting my research. Together, these three partners defined a concept, structure, and approach for developing children's participation in slow mobility in Ghent with a focus on developing an appropriate method, not only outcome.

The *Gangmakers & Koplopers* project involved many children aged between six and twelve in various neighbourhoods in Ghent. The workshops were carried out in a diversity of urban settings, paying particular attention to deprived neighbourhoods and neighbourhoods in transition. These settings ranged from places that were familiar to the children (e.g. their residential neighbourhood) to unfamiliar places (e.g. the old harbour and docks that are less accessible and currently being redeveloped). It was a four-year social-artistic project funded by the Flemish government (2015–2018). Each of the three partners individually organised a series of workshops according to their particular expertise, knowledge, and methods. As *Office for Public Play*, I organised the *Dialogue Shapers* workshop. This three-day workshop took place at the start of the children's summer holidays, early in July 2015. The *Dialogue Shapers* workshop focused on Dampoort[44], a neighbourhood in North East Ghent. The workshop took place in a recently opened community house, called

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Although Dampoort is one of the cheapest residential areas in Ghent, it lacks social housing and good housing conditions. The district includes a mixture of cultures and languages that enrich the neighbourhoods but also produce frictions. Attracted by the affordability of housing, many new residents have recently moved to Dampoort, increasing a feeling of loss of community, anonymity, and insecurity, especially in areas where frequent illegal dumping is observed. Dampoort has a mixed population (20% do not have Belgian nationality) but it is also a 'young' district (in 2003, nearly a quarter of the residents were younger than twenty years old) and therefore the neighbourhood needs good conditions and space for play and activities, better mobility plans, and social security. Recent action by the municipality has brought this impoverished neighbourhood into full transition. An urban renewal project *En route* (Stad Gent, 2005) was drawn up to transform the neighbourhood into one with better quality of life, e.g. better housing and sustainable transport, encouraging entrepreneurship and reducing the neighbourhood's impact on climate change. Citizens were invited to participate in this process, initiated by the city of Ghent. *Office for Public Play* had set up the *Dialogue Shapers* case as independent but conscious of the initiative of the city administration.

Pastory, and its surrounding public spaces. The Pastory (translated as 'rectory building') is a former rectory building with a garden.

For this workshop, I recruited a group of children from the Dampoort neighbourhood through an open call spread via printed flers and online social media. Despite crystal clear communication and distribution via various local organisations (i.e. *Trage Wegen*, Pastory, and local youth organisations), recruitment was slow and difficult. At the start of the recruitment, the number of enrolments was only four middle-class white Flemish children. Most of them were friends or siblings. In order to break the monoculture of the group, I approached vzw Jong, an organisation doing youth welfare work for newcomers. This resulted in four additional participants of Slovakian origin. The workshop started with eight children but grew day by day with friends and siblings of the Slovakian children. The full group counted twelve children. Although the original workshop call addressed children aged nine to twelve, the final participant group also included a six-year-old girl.

My main role in the Dialogue Shapers workshop was to design and facilitate the workshop structure. In my researcher role, I introduced openness into my participatory design approach, I made observations, and I documented what happened. Additional roles concerned the child participants' recruitment and logistics, the external communication of the workshop, the preparation of the external observers, and inviting policymakers to participate in one of the workshop sessions. I had invited an external designer, Madelinde Hageman, to be part of this workshop. Her engagement was limited to the first day of the workshop at which she facilitated her predesigned[45] *Herrekijkers* programme. I also recruited two external observers (for *multiple-source observations*). Emma Ribbens had been an exchange student on HDK's Child Culture Design master's programme. Her main role was to assist the children but she also contributed documentation in the form of photographs and notes. Sabine Vanderlinden is a professional documentary maker. Her role was to document parts of the process through video recording. She also took part in assisting the children. Furthermore, I had invited two local policymakers to discuss the children's slow mobility concerns and

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The *Herrekijkers* programme is a fixed programme. This means that the same initial design has been used to work with different groups of children in different locations.

ideas together with the children. These two policymakers were Elke Decruynaere, Councillor for Education, Upbringing and Youth in Ghent, and Filip Watteeuw, Councillor for Mobility in Ghent.

The Workshop

With the *Dialogue Shapers* workshop, I aimed to support a group of children to develop critical awareness about soft mobility in the city of Ghent, to discuss these matters with each other and stakeholders, and to activate them to make changes in their situation (Freire, 2000[1968]). By soft mobility, I mean slow types of mobility like pedestrians and cyclists who are accommodated by using formal and informal planned paths, squares, and wastelands. Because these paths, squares, wastelands, roads, alleys, etc. are not accessible to cars, they function as safe spaces for citizens' mobility, socialisation, and leisure activities; especially for young citizens. These particular types of public space are currently at risk. Current demographic growth in many European cities requires building more facilities for e.g. housing, education, care, and mobility. This often results in a dense urban fabric in which vulnerable wastelands, narrow roads, and alleys must make way for formal functions and *fast* types of mobility. The disappearance of such spaces also means a loss of their unique qualities like safety and slowness.

     In *Dialogue Shapers*, I assembled a group of twelve local children to reflect upon matters of slow mobility and public space in their local neighbourhood. Thus a large part of the workshop focused on preparing the child participants for discussing their opinions, doubts, questions, and desires with two local policy makers. Through this discussion, I aimed to produce a mutual dialogue between children and policymakers instead of the usual one-way approach (e.g. the children hand over a wish list to the policymakers without expecting a direct response or any results).

     In the context of this workshop, the term *Dialogue Shapers* should be understood as the ability, value, and right of children to be a serious dialogue partner when discussing public issues, in this case, issues related to urban soft mobility. In this sense the title also refers to the workshop's aim to help the children to work on the three main goals of article 12 of the UNCRC—i.e. to be informed, to express their own views on issues that concern them, and to have their views respected and heeded in relation to age and maturity.

I invited designer Madelinde Hageman to run her *Herrekijkers* programme. The first reason for inviting an external designer was to compare our ways of approaching openness in participatory design. Secondly, having an external designer and facilitator enabled me to focus on my research role and conduct participant observations. Finally, I wanted to test the *Herrekijkers* programme in the context of children's explorations in public space. *Herrekijkers* is a method and a toolkit that uses design thinking and art-making to encourage children to see their daily environment in a new way through more creative thinking. The word *herrekijkers* translates as the 're-see-ers' and means 'those who see again'. Nature forms an important source in the *Herrekijkers* programme. It consists of three phases. It starts with an inspiration phase. This first phase aims to awaken the children's creativity by showing a series of artworks inspired by nature or artworks constructed from natural elements. In the second phase — the exploration phase — the children use a toolkit to conduct a series of assignments that help them to explore aspects of nature in their environment by using all their senses. In these assignments, the children produce both notes, photographs and tactile materials. In the final phase — the design phase — the children use their documentation for developing new words and poetry, thereby creating new perspectives on their environment. Although the external designer had designed the *Herrekijkers* programme for introducing creative thinking and design basics to children in a school context, I had asked her to test the programme outside the educational context, to explore urban public space instead of nature, and give more agency to the children.

In the *Dialogue Shapers* workshop, I further explored introducing openness into my participatory design approach by further developing the approaches I had already tested in the previous two workshops.

 Openness in assignment — Firstly, as a designer I created *assignment-cards;* similar to the assignment-banners in the *Playful Monstration* workshop. These offered a diversity of assignments from which the child participants could choose. Compared with the assignment-banners, these cards had a smaller format and no pictorial images, only written words. In addition, the cards presented compact and finished assignments in contrast to the banners that presented bits and pieces of assignments[46]. The large number of assignment-cards could accommodate more activities than the scheduled amount of workshop time.

Secondly, as in the *Recipes for unControl* workshop, the facilitator formulated assignment briefings with new, contradictory, and/or complex information.

A third way of introducing openness into the assignment consisted of organising a short *making* or *doing* exercise before the actual assignment and before the reflective part of the assignment. Thus those types of assignment consisted of two parts: a short, practical *making* or *doing* exercise followed by a reflective part. This preceding exercise aimed to open up for out-of-the-box thinking and for connecting their personal experiences and backgrounds to their reflection.

Openness in materials—In this workshop, I suggested that the child participants should use "loose parts" (Nicholson, 1971) for working on their assignments. I provided them with e.g. rope, chalk, and clay. I also introduced materials that were new to them like an old typewriter, printing letters, and other printing tools. When working in public space, I encouraged the child participants to find *loose parts material* (e.g. natural objects, bits of rubbish, etc.) and *lost and found material* themselves. I also stimulated them to explore the city as material (e.g. its buildings, streets, pavements, lamp posts, fences, walls, etc.). Furthermore, I explored how the child participants themselves could design their own tools for exploring public space. I will refer to such individually or collectively self-created tools as *(co-)self-created tools*, below.

Openness in setting—The *Dialogue Shapers* workshop was organised partly inside a community building and partly out of doors in public space. Firstly, inside the community building, the child participants could use the whole ground floor. Most of the time, the individual child participants were free to choose a space for working on their assignment. As designer, I had arranged the different spaces on the ground floor according to different purposes, moods, interests, etc. More concretely, I had designed the first space as a cosy lounge, the second was left empty, and the third space was arranged as a work space with one large table and chairs and empty walls for presenting work in progress. The ground floor also included an adjacent courtyard and a garden. The garden was very large and shielded by a wall with a fence which meant that the children were free to be in the garden without the close

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In retrospect, and as an early reflection, the assignment-banners offered more openness than the assignment-cards.

supervision of the facilitators. This also meant that the children themselves were responsible for behaving socially, safely, and ethically.

Secondly, many assignments in this workshop were conducted in public space. Also here, in most cases, the child participants were free to choose a space for working on their assignment. However, in this case, the whole group had to agree on visiting the same place. The group had to stay united for safety reasons and because of the limited number of facilitators. Having once arrived at a certain location, the individual child participants were free to choose their own spot as long as they stayed within view of a facilitator.

Openness in the child participant and facilitator role—In this workshop, I was inspired by Augusto Boal's "forum theatre" technique (2000[1979]) for designing a role-playing game that aimed to open up the workshop actors' roles when discussing the children's slow mobility concerns, doubts, fears, questions, desires, etc. *The Chair Dance* was a role-playing game in which the child participants and the policymakers alternately and randomly played the role of a child, a parent, or a policymaker when discussing urban mobility issues. For instance, during one game/discussion session, one child participant discussed an urban mobility issue whilst playing the role of a policymaker. This means that the child participant discussed the issue whilst imagining the task, responsibilities, concerns, and interests of a policymaker. During another game/discussion session, the policymaker played the role of a child, meaning that she discussed the issue whilst imagining the position, concerns, and interests of a child. More concretely, the game went like this:

Game set-up—In my adapted version of the musical chairs game, I put out as many chairs as there were participants. All the chairs were placed in a circle, their backs facing inwards. On each chair, there was a *role-label*—i.e., a label with the name of a certain role. These roles were to be played by the participants during their dialogue. The following roles were proposed: one storyteller, one dialogue shaper, one councillor, one parent, and one child. The rest of the participants had no (particular) role, meaning that they would act themselves. These labels were placed with the blank side upwards so that the *role-name* was invisible.

Game tools—The *Invisible Paths* book served as a resource for issues to be discussed. It was a self-made publication made by the children in a previous phase of the workshop. It collected a series of stories written by the child participants, some of their parents,

and the woman councillor. The stories described each author's ideas, opinions, questions, and doubts about urban (slow) mobility.

Game rules—The participants dance whilst walking around the chairs. When the music stops, each player quickly searches for the nearest chair. When all the players are seated, they can turn over their label, read their role, and start playing that role during the subsequent discussion session. Firstly, the person playing the storyteller chooses one soft mobility issue story from the *Invisible Paths* book. The storyteller reads the story aloud to the group. Next, all the players discuss the soft mobility story from the point of view of their own role (woman councillor, parent, child, and story teller). Secondly, the person playing the dialogue shaper (similar to "the joker" in Augusto Boal's "forum theatre"; Boal, 2000[1979]) mediates the discussion. The overall idea of the dialogue game is to support a discussion about the children's self-identified soft mobility issues with a local Councillor.

Although *The Chair Dance* was clearly experienced as a game, it was at the same time part of real life, with a discussion of real life issues. Through the role-play and empathy, I encouraged the child participants to open up their roles when interacting with the policymaker whilst at the same time changing their perception about the policymaker. Vice versa, I encouraged the policymaker to open up her role when interacting with the children whilst at the same time changing her perceptions of the children. Furthermore, the role-playing game did not involve the facilitator in her typical mediator role. Instead, one of the participants (a child participant or the policymaker) was alternately and randomly appointed as a mediator of the discussion (see "the jester" role in Boal's "forum theatre"; ibid.). This means that there was role reversal between the facilitator and one of the participants (a child participant or a policymaker) *outside* of the game. With this *meta* role-play or role-reversal, I created openness in how the workshop actors typically interpret and perform their roles. By *meta*, I mean the second type of role-playing that occurred outside the game but within the workshop.

In addition, and as in the other two workshops, I introduced openness into the workshop actors' roles through my attitude and behaviour as a facilitator—i.e., the way I acted and interacted with the child participants and the policymakers. This means that as the facilitator, I ignored the idea that knowledge, decision-making, initiative-taking, and responsibility are reserved for one workshop actor category only—for

the facilitator only—but are part of the roles of all the workshop actors. By playing atypical adult behaviour, I aimed to prevent them from projecting a conventional adult role onto me.

Openness in the workshop goal—Although the meetings with the two policymakers seemed important events towards the end of the workshop process, I had made clear to the child participants that this was not the main goal of the workshop, but that the main goal of the workshop was that they themselves had to find a personal goal for participating and find out how the workshop could support their personal interests and agendas in relation to urban mobility.

The workshop process consisted of five main parts:

The first part focused on the child participants' identification of soft mobility issues in their local public space. They used past and newly gained experiences for identifying those issues. The painting *Children's Games* (1560) by Pieter Bruegel the Elder served as a framework for helping the child participants' to make their past experiences explicit; places they frequently visited and usual activities. They also generated *new* slow mobility experiences by conducting assignments in the neighbouring public space. These assignments consisted of the *Herrekijkers* programme (designed and facilitated by the external designer) supplemented by assignments designed and facilitated by myself (*Office for Public Play*). After these assignments, the child participants processed their past and newly gained experiences into a collectively made map. This *Frontrunners Map* presented soft mobility issues identified and chosen by the child participants themselves.

In the second phase, the child participants developed personal opinions about these soft mobility issues through a process of individual reflection and group discussion. These discussions happened amongst peers and offered a safe space for further developing their personal opinions. They expressed their opinions through a wide range of materials and tools. Their opinions were collected in a book, together with the written opinions of some of their parents and the policymakers. This *Invisible Paths* book served as a resource for discussing their opinions with externals (the policymakers) in the next phase.

Whereas the second phase focused on internal dialogues amongst the child participants, the third phase enabled dialogues between them and two local policymakers. The previous phases had prepared the child participants to discuss their opinions with the policymakers. This third

phase accommodated two dialogue discussions. In the first dialogue, the child participants discussed soft mobility issues with the Councillor for Education, Upbringing and Youth for Ghent, on the basis of the role-playing game and the *Invisible Paths* book. After this first discussion, the child participants further developed their opinions through new public space explorations and reflections. This resulted in a document, the *Pace-setters Convention*, in which they listed ten 'soft mobility rights' they wanted to achieve. In the second dialogue, the child participants discussed this list of soft mobility rights with the Councillor for Mobility in Ghent.

In the fourth and last part, the whole workshop process was displayed on the walls of the Pastory. The children guiding their parents through the workshop process generated a last round of dialogues.

The Written Memorisations and Their Analysis

Workshop Situations Specifications

The present section contains some specifications that will help to read the three selected workshop situations of the *Dialogue Shapers* workshop. They are short reminders of what I have already explained in detail at the start of 4.4.

The situation described in *written memorisation #6* is situated in the afternoon of the first workshop session/day. The workshop took place at the square in front of the Heilig Hart church. The square serves as a parking space and lacks space for social encounter and play. In this sixth *written memorisation*, I describe how the workshop actors conducted an assignment that aimed to develop the child participants' critical thinking about the excessive presence of cars in the Dampoort neighbourhood and what this means for children's autonomous mobility. The assignment was designed and facilitated by myself.

The situation described in *written memorisation #7* occurred at the end of the first workshop day. The workshop took place inside the Pastory, a community house established by a group of local residents. In this seventh *written memorisation*, I describe a dispute between the workshop actors. The dispute was caused by another assignment earlier that

day. In short, the child participants had different opinions about where they wanted to conduct the assignment. The discussion had divided the group into two camps. In the meantime, only one of the two locations had been visited. The workshop situation starts at the moment when the other camp demanded also to visit the location they had proposed.

The situation described in *written memorisation* #8 narrates an activity at the end of the second workshop session/day. The workshop took place in the courtyard of the Pastory community house. In this eighth *written memorisation*, I describe a *staged* discussion between twelve participating children and the Councillor for Education, Upbringing and Youth in Ghent and her assistant. The dialogue was staged in the sense that the designer had set up the discussion as a role-playing game. The design of the role-playing game was inspired by Augusto Boal's "forum theatre" (Boal, 2000[1979]) and based on the popular musical chairs game. For an in-depth description of the role-playing game, revisit pages 184–185.

The following workshop actors took part in the sixth, seventh, and eighth *written memorisations*:

- The child participants: a group of twelve children, aged between six and eleven.
- Other workshop participants: the Councillor for Education, Upbringing and Youth in Ghent and her assistant.
- The designers/facilitators: the invited designer was the main designer and facilitator during the first workshop day (*written memorisation* #6 and #7). I will refer to her as *facilitator ED* (ED standing for external designer). Myself, a researcher in the role of main designer and facilitator during the other workshop days (*written memorisation* #8). I will refer to myself as *facilitator DR* (DR standing for design researcher).
- The workshop assistants: two women who assisted the facilitator(s), carried out external observation, and produced video documentation, photographs, and field notes.

In the seventh *written memorisation*, the group of child participants divided into two groups. One group included only children with Slovakian background and the other group consisted only of children with Flemish background. Therefore, I have called the groups: *Slovakian children* and *Flemish children*. I don't mean to stereotype these groups but it may tell us something about how these groups were formed based on pre-existing relationships and/or other social bonding.

#6 The Car Wrestlers

In order to get the children's attention and collaboration, in my role as facilitator, I entice them by announcing that we'll carry out our next activity out of doors ... somewhere in the neighbourhood. My voice gets lost in the children's own buzz and activities. It takes a while until my message reaches them. Slowly they assemble at the front door. I block the door so I can give them collective information about where to go. At the same time, I try to think of a suitable location to carry out the assignment. The assignment needs the presence of a parked car. I choose the nearest location with parked cars since the end of the workshop day is coming closer... there is not much time left before the Flemish parents will be coming to pick up their children. I tell the children that we will work next door to the Pastory building, on the square surrounding the church. I explain to them that the square now serves as a parking space. We need safety regulations. I warn them that cars may move unexpectedly or arrive at high speed. I ask them to be attentive and look out for cars. When I open the door, the children storm outside and I wonder if they got my message. I intend to be extra vigilant but I also realise that I do not consider the children as being capable of taking care of themselves.

In the square, I reveal our next mission. I had formulated the assignment in advance in written format. I read aloud: *What is the size of a car? How much space does a car take up? Take a piece of rope and use it to mark out a part of the street surface with the same circumference as the car size. What would you like to do with that space if there wasn't a car there? Create a 'notice' that explains to the motorist why this space is so precious to children. Supplies: rope, paper and pen.* Whilst reading the material list, I realise I had forgotten to take paper and pen but took coloured chalk instead.

The children choose a car. It is the first and the *best* one, it's a big BMW. They start unrolling the rope. I worry that the children might damage the shiny paint of the car by moving close and wildly. I interfere in their choice by saying that they have chosen a really nice and expensive car. I suggest that they choose another car. They spot a big white van a bit further away. Again,

I feel the need to interfere. This time, I make them aware of its large dimensions. I suggest they take a standard car, one that represents standard measurements. The children choose a third car and I nod approvingly. Finally, we have a car!

Some children stretch the rope around the car. When one child starts pulling the rope, other children protest. They stretch the rope around the car once again. Dimitri starts pulling the rope again, followed by his friend Sacha. The other children protest and make a fuss. I decide to interfere by saying that the measurement needs to be *correct* and so they need to work carefully. At the same time, I feel that I'm spoiling their free play and fun. Once the rope is *correctly* stretched around the car, I help them to cut it and make a knot. I instruct them to move the newly created rectangular space onto the surface of the square. Then they have to think about what else this space could be used for besides parking a car. I tell them also to consider the total amount of space taken up by cars in the city. I propose that the children draw their reflections with chalk in the empty square because I had, unfortunately, forgotten to bring the right material for making the notice.

The children start moving the looped rope to a nearby empty spot. The rope, detached from its rectangularly shaped car, becomes a shapeless flexible form to be manipulated in any possible way. The rope starts making different shapes according to the position and movements of the children carrying it. Instead of reconstructing the car's rectangular shape, some of the children start running with the rope. By doing so, they pull the other children, still attached on the rope, over the church square. There's a lot of fun and screaming. A lot of energy gets released until the moment that the rope cuts and hurts a child. The other children and I help to release the child from the rope. Then they continue their free play with the rope which develops into different stages. The facilitators watch and their assistants intervene from time to time, when the children become too rough. After a while, I reintroduce the question *What would you like to do with that space if there was no car?* I ask them to reconstruct the car's rectangular shape and draw or write their ideas with chalk inside. The children start chalking the square. It becomes a blank page for their opinions and ideas.

Analysis of the Sixth Written Memorisation

As in the analysis of the previous written memorisations, the present analysis focuses on how the workshop actors dealt with the particular "form(s) of ambiguity" (Gaver et al., 2003) through a specific *form of negotiation* and *responsibilities*. I will present these findings here and further elaborate on their meaning in the next chapter.

The situation described in *written memorisation #6 The Car Wrestlers* happened during the first day of the *Dialogue Shapers* workshop. The facilitator formulated a clearly defined assignment. The assignment consisted of a hands-on exercise followed by a group discussion. The aim of the hands-on exercise was to prepare the child participants for individual reflection and a subsequent group discussion. More concretely, the assignment asked the child participants first to measure the circumference of a car and then to reflect critically on the amount of space that cars take up in public space and in what ways these cars interfere with children's use of and access to public space. In the second part of the assignment, the child participants were asked to pick their favourite reflection/opinion and turn it into a fictional car fine. They would then use these individual reflections, turned into fictional car fines, as a basis for the group discussion. After the group discussion, they would distribute their fines amongst local cars and create an additional dialogue/discussion with the car drivers. The facilitator chose the location and provided a rope for measuring the car. Because she had forgotten the material for making the fictional car fines, she had partly to adjust the assignment on site.

The child participants started the exercise by choosing a car. The facilitator intervened. She made judgements about what cars not to choose without further argumentation. When the child participants wanted to measure the car, it became clear that they had different opinions about how to measure it. They tried out some proposals but were unsure if they were using the rope in a *correct* way and turned to the facilitator for help. The facilitator demonstrated how she would use the rope for measuring the car. When the child participants started to measure again, they discovered that the rope was elastic. As a result of this discovery, they did not classify the rope as an accurate measuring tool. Instead, the elastic quality made them interpret the rope as a tool for play. Subsequently, they stopped their measuring activity and initiated their own activity: free play with the rope.

The facilitator's suggestion to use a rope as a measuring tool was new to the child participants. It created openness in the interpretation of the material. When they discovered that the rope was elastic, they got even more confused about the idea of using the rope as a tool for measuring. This openness in material awakened "ambiguity of information" (Gaver et al., 2003). In addition, the facilitator adjusting the assignment on-site created openness in the interpretation of the assignment, hence amplifying their experience of "ambiguity of information" (ibid.).

Furthermore, the facilitator adjusting the exercise on-site and forgetting to bring certain materials made the child participants shift their perceptions of her. She did not seem to be a typical adult-in-control and she was transparent about the *mistakes* she made. In addition, the facilitator seemed flexible about making adjustments to the assignment. This openness in the facilitator role awakened "ambiguity of relationship" (ibid.) which had a positive effect on the child participants' interpretations of their own role according to their personal values, interests, and backgrounds.

The workshop actors experienced ambiguity in relation to the material, the assignment, and their roles. This generated many possibilities about how to use the rope, how to conduct the assignment, and what role to play. At first, the child participants started to actualise the possibilities suggested by the facilitator. When this didn't align with their own values and beliefs, they took a radical shift and started to actualise their own meaning that did represent their personal values, interests, and backgrounds: play. Thus the meanings of both workshop actor categories conflicted and could not be actualised at the same time. As a result, a choice had to be made. The child participants excluded the facilitator from this decision-making and made the decision by themselves (see: *disambiguation in favour of oneself* in chapter 5). In other words, the child participants suppressed the freedom and equal involvement of the facilitator which resulted in an undemocratic process.

#7 Finally, Going to Aldi Park

Madelinde (facilitator ED) finishes her explanation about the first workshop activity. As part of her *Herrekijkers* programme, she asks the children to re-explore their familiar public spaces by using all their senses: hearing, seeing, smelling, tasting,

and touching. She provides them each with a *Herrekijkers* toolkit consisting of a notebook, pen, collection bag, digital camera, and a plasticised fan containing different explorative exercises. The children are excited and ready to start. As the co-facilitator, I introduce the issue of location: *which public spaces in the neighbourhood shall we explore?* The group remains silent so I ask them where they usually play or hang out. Felix proposes the old convent. He lives in a former convent that has been renovated and is now being used as private housing. Fia, his sister, continues describing the convent: *There's a big stone wall enclosing the convent houses. The wall also ensures that no cars enter the convent. It's a car-free zone and a heaven for them to play in. There are different streets inside the convent walls and a central grass square with a church. Their father allows them to play everywhere as long as they stay inside the walls.* Felix takes over again: *There's even a field with cows.* The place description seems very idealistic to me and I wonder if they are just exaggerating and how much is due to their imagination. Marie confirms. She knows the place because her grandmother lives there. She suggests going there so she can ring her grandmother's doorbell and say hello. Emily also seems to know the place. She's Fia's best friend and regularly comes over to play at their house and in the convent. The other children do not seem to recognise the place so I ask Felix and Fia to describe where it is situated; in what part of the Dampoort district and close to which landmarks. By describing the location, the Slovakian children understand that the it must be opposite the 'GB Park'. The GB park is a park with a playground and basketball court close to the Carrefour market. Now the Flemish children are confused. They don't know any GB park. They call the park in front of the convent the 'Wasstraat Park' since it borders onto Wasstraat. It's clear that both groups mean the same place but use different names. The Slovakian children seem to be referring to a supermarket which is probably very close to the park. Now that they have understood which place the Flemish children want to explore, they express their disapproval. They don't want to go near the GB Park since it is *the place* where Turkish children hang out. They say that place is *dangerous* and they do not want to hang out there. The Slovakian children propose an alternative location. They suggest

going to Aldi Park. Again, this name is unfamiliar to the Flemish
children and they don't know which park they mean. Because
Aldi is the name of another supermarket, I suggest they might
mean the park that is close to the Aldi supermarket. I don't
know the neighbourhood very well myself so I ask the Flemish
children if there is an Aldi supermarket in the neighbourhood
that has a park close by. They confirm this but say that it's really
far away. The discussion seems to be going on for ages and
we should decide soon if we want to have enough time for explor-
ing the sites. Madelinde also realises the time issue and sug-
gests going to the convent since all children clearly know where
it is. I ask the Slovakian children how far Aldi Park is from
our current location but they don't seem to know. The convent
seems only five minutes away so I agree with Madelinde's
suggestion. Finally, Madelinde and I propose to the group that
they first explore the convent and then move on to Aldi Park.

(…)

I'm starting to get hungry. The outdoor air gives one a healthy
appetite. I look at the clock on the church tower. It's almost 12
o'clock. The children will probably be very hungry as well. It is
high time to gather them for the walk back to the Pastory where
we left our lunch boxes. I find Madelinde and two more children
at the convent church. We ask the two children to gather all the
other children. When the group is complete, we're ready to go.
Safety measures are repeated: stay in one group and watch out
for traffic. Sacha asks whether we are going to Aldi park now.
Facilitator DR: N*o, we're going back to the Pastory for lunch now.*
Sacha: *But! you've promised we'd go to Aldi park after the convent.*
Dimitri confirms: *Yes, let's go to Aldi park!*
Valentina comes closer as if she wants to show that she's part of
the group; the group wanting to go to Aldi park.
Facilitator DR: *Not now. It's noon, we're all hungry. We need to eat
now. We can see what is possible this afternoon.*
Madelinde and I exchange looks, meaning: we need to discuss
this over lunch.

Sacha and Dimitri are disappointed. They do not seem
to agree at all but their rumbling bellies make them follow the
group back to the Pastory.

Over lunch, we, the facilitators and assistants, reflect on the morning's activity. After a while, I reintroduce the Aldi park issue. I say that Sacha, Dimitri, and Valentina seem eager to show *their* place and since they are only two groups, it would be only fair to give attention to the second group too, especially because we don't want this group of children to feel they are excluded. I encourage Madelinde to reconsider her afternoon schedule and make some time for exploring the Aldi park. Madelinde doesn't agree. I articulate my arguments, Madelinde presents her reasons. For me the presence and participation of the three children without Flemish origin is important. I see that the three have not yet bonded with the rest of the group. In order to facilitate a closer bonding with the Flemish children, I argue for taking their request seriously. Furthermore, I suggest it would be interesting to get an insight into the type of place the Slovakian children hang out and what they do there. Madelinde understands my arguments but prefers to stick to her predetermined schedule in order to finish the planned *Herrekijkers* programme, especially since the children have done enough exploration already. Madelinde argues that the children have collected enough experiences; they have enough material to move on to the next phase so there is no need to explore an additional site. Madelinde and I can't seem to reach an agreement. A new topic is raised and the conversation continues in another direction.

(…)
The afternoon also passes quickly. Soon the Flemish parents will be coming to pick up their children. The Slovakian children Dimitri, Sacha, and Valentina are allowed to go home independently. When Dimitri, Sacha, and Valentina realise that the activities of the day are soon coming to an end, they reintroduce their request to go to Aldi Park. I feel guilty for not having taken care of this before. I feel uncomfortable. Their question and insistence are entirely justified. I am aware, and therefore stressed, that they deserve a serious answer; one that engages with their question with respect. Because it was decided in advance that Madelinde was going to be involved in the workshop for only one day (her *Herrekijkers* programme was

planned to enable the children to explore public space during the first day only), the decision and responsibility are now mainly with me. I apologise for repeatedly postponing their question. I assure Dimitri, Sacha, and Valentina that the delay is not an annulment. I try to make it clear that the first-day programme was well prepared and therefore fixed, and that it was too difficult to adjust the schedule at the last minute. I continue by saying that the programme for tomorrow is set as well but we'll make an effort to adjust it so we can go to Aldi Park tomorrow. I conclude by saying that I am looking forward to discovering *their* place as well but that I cannot yet make it a promise. It's something I have to discuss with the whole team.

I am surprised by their perseverance. They seem very serious about this... So I should be too. They seem to feel comfortable in expressing, even claiming, their desires. I admire them for their drive and engagement, which I want to encourage and respond to positively.

(...)
The children have left the Pastory; they are on their way home after their first day workshopping. The house comes to rest; I can even hear the silence. I look at the mess we have made: paper, glue, scissors, markers all over the place. There wasn't any time left for the children to clean up. I look at the artefacts they have made today: the poetic titles they have created in association to exploring a self-chosen public space, the *Herrekijkers* notebook, *Polaroid* photos of places and their activities in the convent. All in all, it was a good day. Madelinde has hung all the documentation neatly on the wall. I feel satisfied but the issue of Aldi Park needs to be worked on. I call Madelinde and the workshop assistants (co-facilitator and external observers) to discuss preliminary reflections and evaluations about this first day. I add the issue of Aldi Park, and the discussion is resumed. Our initial differences are retained. Madelinde suggests sticking to the predefined programme since visiting Aldi Park will probably not contribute any new insight. I disagree by insisting on going to Aldi Park to give the Slovakian children the opportunity to show their place. We also need to show the children that we are interested and that we take their initiatives seriously. I am

convinced that this opportunity will also give us a different experience and new insights. So I suggest adjusting the schedule for the next day and providing time for exploring Aldi Park. Emma agrees with me whilst Sabine stays neutral. We are two against one and since Madelinde won't be participating in the rest of the workshop, we make the decision to explore Aldi Park tomorrow!

Analysis of the Seventh Written Memorisation

As in the analysis of the previous written memorisations, the present analysis focuses on how the workshop actors dealt with the particular "form(s) of ambiguity" (Gaver et al., 2003) through a *specific form of negotiation* and *responsibilities*. I will present these findings here and further elaborate on their meaning in the next chapter.

The workshop situation described in the *written memorisation #7 Finally, going to Aldi Park* happened during the first day of the *Dialogue Shapers* workshop. For this first day, in my role as a designer-researcher, I had invited an external designer (facilitator ED) to design and facilitate a workshop structure. Although I planned to conduct participant observation only (researcher role), I could not resist intervening in some situations (i.e. researcher-as-design-interventionist) and creating more openness in those situations where I considered that the participatory design approach was being defined too much by adults only. Thus I also played a secondary role as second facilitator (facilitator DR).

Facilitator ED clearly explained the *Herrekijkers* programme from A to Z. She explained the aim of the assignment and provided examples of artworks inspired by nature. These examples served as inspiration. Facilitator ED explained how the toolkit worked; its exercise booklet and requisites. The child participants were asked to do all the exercises but they were free to choose their order. The facilitator encouraged them to take some photographs of some exercises; they had to consult the facilitators who kept the cameras. The assignment brief took quite some time and resulted in well-informed child participants who had a clear idea about what they were going to do and what they were going to produce as their outcome. In other words, the child participants had a clear idea about what was expected of them. Facilitator ED closed the briefing by asking them whether everything was clear and

whether they had additional questions. They had no questions. At that moment, I stepped out of my participant observation role and stepped into my researcher-as-design-interventionist role. I asked *where* we were going to work on the *Herrekijkers*' assignment. However, instead of asking this question to facilitator ED, I mainly addressed my question to the child participants. In other words, I asked the child participants where they would like to work on the *Herrekijkers* assignment. I continued activating their involvement by asking whether they knew a *good* public space in the neighbourhood; maybe their favourite place. I knew I was challenging facilitator ED with this intervention because we had discussed the location issue in advance but without agreeing. According to facilitator ED, the location didn't matter and therefore it would be easier and less time-consuming if the designer chose the location in advance. In contrast, I was interested in activating the child participants' agency in the collaborative process and wanted to open up the choice of location to them.

The child participants took the freedom to choose their own location. Whereas many of them chose different locations, some who were friends chose the same location. Thus my question resulted in a diversity of possible settings. Facilitator DR explained to the child participants that it wasn't possible to visit all these places because of lack of time and lack of facilitators. She suggested that they as a group choose one location. They started to discuss the possibilities. Facilitator DR suggested that they consider issues of safety when making their choice. In other words, the child participants had to choose a location that allowed them to work on the assignment safely. The discussion resulted in two opposing camps: one camp wanted to go to the nearby convent and the other camp preferred going to *Aldi park*. However, the Aldi group could not specify what kind of place Aldi park was. They couldn't respond to the facilitator's questions: Was it a park near the Aldi[47] supermarket? Was it the carpark of the Aldi supermarket, or was it something completely different? This group was also unable to give clear directions about how to get there and how far it was. In addition, the place was not known to the other group (at least not under that name). A discussion between the two camps had started and both facilitators became involved. Rather than mediating the different opinions of the

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Aldi is the name of a supermarket chain.

two camps, facilitator ED introduced her own opinion. Facilitator DR helped the two child participant camps to formulate relevant arguments and make a decision on the basis of these arguments. Because of lack of information (what, where, how far, how to get there), the convent was chosen as the location for working on the *Herrekijkers* assignment. The group of child participants who wanted to go to Aldi park did not feel represented and was disappointed.

Towards the end of the day, the child participants who wanted to go to Aldi park asked whether there was still a possibility to visit it. Although there was hardly any time left that first day, facilitator DR took their question seriously; the discussion was reopened. This time, the discussion resulted in three camps. On one hand, facilitator ED considered the *Herrekijkers* assignment as finished, hence no more need to visit an additional place. On the other hand, there was the Aldi child participants' group that wanted to go Aldi park and facilitator DR supported this group. The third camp consisted of the convent child participants' group who took a neutral position. The discussion ended with the decision that facilitator DR would adjust the workshop structure for the next workshop day so that the workshop actors could visit Aldi park.

The openness in the workshop setting awakened a conscious experience of "ambiguity of information" (Gaver et al., 2003).

Furthermore, the public disagreement between the two facilitators created openness in the facilitator role. In addition, facilitator DR encouraged the child participants to play a more active role. Thus the openness in the facilitator role and the child participant role had a positive effect on awakening a conscious experience of "ambiguity of relationship" (ibid.).

The workshop actors experienced ambiguity in relation to the setting. This generated many possibilities about where to go. The child participants took this opportunity to introduce their own meanings but acknowledged issues of safety. They also considered the time limitation which forced them to make a choice within the diversity of meanings. In other words, the conflicting meanings required choice-making and all the workshop actors were equally involved in the decision but didn't feel the decision represented their meanings. In a second phase, the negotiation continued and resulted in conflicting meanings that did not require choice-making (see: *alternating times* in chapter 5) and resulted in a democratic and diversity-rich process.

#8 The Chair Dance

It is a sunny day, early July. The courtyard of the community house is filled with bright energy. A pleasant dance tune sets the mood. The children, the councillor, and her assistant are moving around a circle of chairs. They are partly dancing, partly walking. They seem excited, there's joy with a little nervousness. When the music stops, they all hurry to the nearest chair. Then they sit down as soon as they can. In a matter of seconds, all the *dancers* have found a chair. On my command (facilitator), the dancers consult the reversed label belonging to their chair. Each dancer reads her/his label and so they receive their discussant role. I ask the dancers to make their discussant roles public. Felix is the storyteller. Very coincidentally, the councillor got the role of councillor. The councillor's assistant is to be the dialogue shaper. Alexander has to bring in the parent perspective and finally, Marie will represent the child's voice. The role announcement results in some muttering. The other dancers—all children—got a label without any word. They wonder what it means and what role they should take in the discussion. I explain that they have no active role in the discussion and will have to wait for another round of the game in which they hopefully do get a discussant role. The children are disappointed that they can't participate in the first discussion round. I understand their dissatisfaction and admit that I made a mistake in the game design. I try to rectify this with a quick change in the game rules: anyone who got a blank label can represent another child voice in the discussion. The group agrees with my change. We are now ready to start the discussion. In my role as facilitator, I hand over the *Invisible Paths* book to Felix. I ask him to choose one of the stories and to read it aloud for the whole group. I ask the other participants to listen carefully as this story will be the basis for the first group discussion. Felix chooses his own story from the *Invisible Paths* book. It deals with his worries about the extinction of bees. The story expresses his displeasure about the use of pesticides that are fatal for bees and many other insects. Above all, using pesticides is bad for nature in general. The councillor confirms his concern and relates his issue to the context of the city and slow mobility. She argues for the need for

more 'green' in the city and the role of green paths and alleys there. With her opinion, the councillor responds to the workshop's underlying agenda which focuses on the preservation and development of soft mobility in the city. The councillor also makes an attempt to bring the child with the 'child-discussant role' into the discussion by asking Marie what she thinks about the role of soft mobility in relation to a greener city. Marie doesn't know right away what to answer. The councillor's assistant tries to remedy this in his role as dialogue shaper. He repeats the question but in a different way. Marie replies. The discussion takes off and the dialogue shaper does his best to involve the different roles in the discussion. My role as facilitator for the workshop activity is currently no longer needed so I can focus fully on observing how the discussion proceeds; on who's talking and what is being said. Despite the fact that the children who had got a blank label also wanted to have a role in the discussion, I notice that they actually contribute little or no input. I observe the discussants' facial expressions and their bodily postures. Their bodily postures are pretty unusual and funny because of the way in which I had set up the chairs. I had placed the chairs in a circle with their backs to each other. This meant that the discussants were not facing each other but outwards. This set-up is contradictory to the standard set-up of a round table discussion in which the chairs and discussants are facing each other and all members of the discussion are visible and can take part. I had chosen this alternative set-up because of the way that it symbolises contradictory opinions. At the same time, it was an invitation for the discussants to produce a diversity of opinions rather than a discussion that sought for consensus and conclusion. Many participants do not find this sitting position suitable for a conversation. The participants who obey the proposed seating position are forced to experiment with unconventional ways of conversing. But most participants prefer to face the discussant members—maybe read their facial expressions?—and sit therefore reversed on their chairs.

When the first discussion comes to an end, I go to the music installation and turn on the music again. The participants resume their chair dancing and the atmosphere revives from serious to fun and excitement. When I stop the music and everyone

has found a chair, new roles are appointed and announced. This time the councillor has to play the child. Valentina gets the role of councillor. Mila gets the role of the dialogue shaper. Alexander is the storyteller. Elli gets the parent role. We are ready to start the second round of discussion. Alexander also chooses his own story from the *Invisible Paths* book. After Alexander has read his story, the group remains silent. I force myself to stay quiet and wait to see what happens. The councillor decides to start by giving her reaction from an imaginary child's perspective. Nobody reacts. The councillor resumes her attempt to start the discussion by addressing a question to Valentina who's playing the role of councillor. Valentina remains silent and looks helplessly at the group. She doesn't know what to say. I try to help by explaining her role. I give a short reintroduction about what a councillor responsible for youth education and upbringing does in relation to city governing, policy-making, and decision-making. My information doesn't seem to help her. I suggest that the dialogue shaper formulates a good question for Valentina that can help her find her discussant role. But six-year-old Mila does not know what to do as dialogue shaper so I suggest her brother Radek should help her. The discussion doesn't get started. We're stuck in understanding and finding roles. I bear in mind that my role-playing game design may be too complex and prevent instead of facilitating the group discussion. The other children try to help Valentina and Mila; they seem eager to take over their roles. I decided to bring in yet another new game rule in which I suggest that any role-player who does not feel comfortable playing a certain role can seek assistance from another person or he/she can even decide to transfer her/his role to another person. Valentina decides to transfer her role. The other children shout: *Me! Me! Valentina, can I please be the councillor?* They are all eager to play the councillor role. Valentina chooses her brother Sacha. He's very happy with her choice. And, above all, he's very proud about his new, important role. All eyes are now focused on Sacha but when Sacha finally has to say something, he doesn't know what to say. It looks as though he realises that playing the councillor-role and formulating an opinion on the issue put forward in the story is not easy at all. We give him some time and en-

couragement but after some time it's clear that Sacha had also better transfer his councillor-role. Fia is the lucky one. It also seems she has more luck with playing the councillor-role. The eleven-year-old girl feels comfortable, has something to say, and knows how to express this in words. The discussion takes off, or rather a dialogue between Fia (in the role of councillor) and the councillor (in the role of a child). I encourage the dialogue shapers (six-year-old Mila and ten-year-old Radek) to mediate the discussion so the parent role and other child voices also become involved. The discussion in the third game round also takes effort. Roles become messed up for the sake of moving the discussion forward. Some children lose interest and start to free play. The group becomes divided into free-playing children and discussing children. The discussant children continue their conversation with the councillor and her assistant about the various issues collected in the *Invisible Paths* book until the councillor has to move on to her next work meeting.

Analysis of the Eighth Written Memorisation

As in the analysis of the previous written memorisations, the present analysis focuses on how the workshop actors dealt with the particular "form(s) of ambiguity" (Gaver et al., 2003) through a *specific form of negotiation* and *responsibilities*. I will present these findings here and further elaborate on their meaning in the next chapter.

The situation explained in the *written memorisation #8 The Chair Dance* took place during a staged discussion between the children and local policymakers. The designer had developed a role-playing game in order to facilitate the discussion without the mediation of the facilitator herself. This means that the facilitator was present to explain the role-playing game but did not take part in the discussion as a participant or facilitator. Instead, the design researcher gave full attention to her research role and observed the situation. The designer had not tested the game in advance. The facilitator explained the assignment and the rules of the role-playing game clearly. The facilitator had prepared the set-up of the game (the chair arrangement, music installation, labels, etc.) in advance. When the discussants started to play the role-playing game,

they revealed contradictory meanings in the game rules. These contradictions confused the workshop actors. It encouraged the discussants to question, rethink, and adjust the predefined game rules according to their personal values. The participants started to discuss the contradictory game rules and the facilitator joined in the meta-discussion. Here I introduce the term *meta-discussion* in order to distinguish the discussion *in* the role-playing game and the meta-discussion *on* the role-playing game. The meta-discussion generated a diversity of possibilities. However, in order to play the game, the workshop actors had to agree on the same rules. They developed the new role-playing game rules by playing the game and testing the possibilities, by further discussions and voting. Through their negotiation, the workshop actors agreed on new game rules that worked for them all.

During the game, the facilitator took care of logistics (e.g. turning the music on and off). She did not take part in the game and its group discussion but took a semi-external role as researcher doing participant observation. In addition, the facilitator did not engage in facilitating the group discussion, neither did she comment on or judge the content of this discussion. Furthermore, the role-playing game encouraged the discussants to play a diversity of roles and generations, (e.g. an adult played the role of a child whilst a child played the role of a parent or a policymaker). Stepping into the adult role enabled the child participants to taste the power accompanying it. Some of the child participants kept their empowered position and role throughout the activity (e.g. when the discussants negotiated about the game rules).

Although the facilitator had clearly explained the assignment, it was rather a complex amount of information (discussion, role-play, and game). In addition, the idea to have a slow mobility discussion whilst playing the musical chair game seemed a strange and contradictory combination. Furthermore, some of the game rules didn't make sense. The openness in the interpretation of the assignment had a positive effect on awakening a conscious experience of "ambiguity of information" (Gaver et al., 2003).

In addition, the role-playing game enabling the players to reverse their day-to-day roles (e.g. the child participants took on the role of a policymaker and the policymaker took on the role of a child) created confusion about what role was real and what role was part of the game. This openness in the interpretation of the child participants' role and

the policymakers' role had a positive effect on awakening a conscious experience of "ambiguity of relationship" (ibid.).

Finally, the workshop situation introduced two new contradictory contexts. The policymakers introduced a political context versus the role-playing game in a play context. Both new contexts enabled the workshop actors to interpret the workshop in new ways. This openness in context had a positive effect on awakening a conscious experience of "ambiguity of context" (ibid.).

The child participants experienced the assignment ambiguously. They were confronted with many possibilities regarding how to play the game and how to conduct the discussion. Some of the discussants (child participants and policymakers) started to propose new rules, others consulted the facilitator. Yet another group of discussants took a waiting position. The facilitator joined the child participants and policymakers' meta-discussion about the game rules but without taking a leading role. Although she had designed the role-playing game herself, she was open to involving the other workshop actors in redefining its rules. The child participants, the policymakers, and the facilitator discussed new rules. However, some children didn't understand the meta-discussion about reconfiguring the initial game rules and did not take part in this discussion. The players tested the new game rules and when they didn't work, they were re-discussed and adjusted once more. In some cases, when the workshop actors didn't agree, they decided through voting. Thus the workshop actors put their individual and conflicting meanings into practice through negotiation whilst seeking for agreement. The child participants and the policymakers continued their game and the slow mobility discussion. However, the role-play seemed too difficult for some of the child participants, especially the younger ones. Whereas some child participants liked the game and the slow mobility discussion, others lost interest and stopped participating. Although the actualisation of the conflicting meaning requiring a choice could have resulted in a democratic process, the fact that some child participants were excluded from the decision process (because they were too young and didn't understand the meta-discussion), meant that the result was an undemocratic process.

Workshop Situation	Forms of Ambiguity	Forms of Negotiation
#1 The Birth of Mister Wiels	Ambiguity of information Ambiguity of relationship Ambiguity of context	Co-existing meanings
#2 Interviewing the Parking Meter (part 1)	Ambiguity of information Ambiguity of relationship Ambiguity of context	Co-existing meanings
#2 Interviewing the Parking Meter (part 2)	Ambiguity of information Ambiguity of relationship Ambiguity of context	Conflicting meanings not requiring a choice (division into groups)
#2 Interviewing the Parking Meter (part 3)	Ambiguity of information Ambiguity of relationship Ambiguity of context	Conflicting meanings without equal decision-making
#3 Empty Room with Principles	Ambiguity of information Ambiguity of relationship	Conflicting meanings without equal decision-making (disambiguation in favour of other[s])
#4 Body Scans	Ambiguity of information Ambiguity of relationship Ambiguity of context	Co-existing meanings (individual participation)
#5 A Disturbing Voice	Ambiguity of information Ambiguity of relationship Ambiguity of context	Conflicting meanings without equal decision-making (disambiguation in favour of other(s))
#6 The Car Wrestlers	Ambiguity of information Ambiguity of relationship	Conflicting meanings without equal decision-making
#7 Finally, going to Aldi Park	Ambiguity of information Ambiguity of relationship	Conflicting meanings not requiring a choice (alternating times)
#8 The Chair Dance	Ambiguity of information Ambiguity of relationship Ambiguity of context	Conflicting meanings requiring a choice (discussion, voting)

Table 4.2
Overview of the workshop situations
analysed.

Responsibilities	Democratic Process
Safe behaviour Ethical behaviour Workshop question	Diversity-rich democratic process
Safe behaviour Ethical behaviour Workshop question	Diversity-rich democratic process
Safe behaviour Ethical behaviour Workshop question	Diversity-rich democratic process
Safe behaviour Ethical behaviour Workshop question	Undemocratic process
Safe behaviour Ethical behaviour Workshop question	Undemocratic process
Safe behaviour Ethical behaviour Workshop question	Diversity-rich democratic process
Safe behaviour Ethical behaviour Workshop question	Undemocratic process
No safe behaviour No contribution to the workshop question	Undemocratic process
Safe behaviour Ethical behaviour Workshop question	Diversity-rich democratic process
No democratic outcome	Undemocratic process

4.5
Overview of the Analyses

The following table gives an overview of which "forms of ambiguity" (Gaver et al., 2003) were present in each of the eight workshop situations and how the workshop actors dealt with the emerging diversity of meanings (see: *forms of negotiation and responsibilities* in chapter 5). The last column shows whether ambiguity resulted in a democratic process and the kind of process it produced. In the next chapter, I will further elaborate on the meaning of these findings. The aspects coloured in light blue have a positive effect on actualising a democratic process versus the aspects coloured in grey contributing to an undemocratic process.

4.6
Chapter Summary

In this fourth chapter, I have contextualised and described the empirical material of this thesis. The chapter also includes an analysis of this empirical material. The analysis focused on exploring how I introduced openness into the workshop structure, as a designer and facilitator doing a research project, and what this meant for the actualisation of a democratic process. The analysis showed that openness in the workshop structure has a positive effect on the workshop actors' experience of an ambiguous workshop structure, but that this experience alone is not enough for the actualisation of a democratic process. I will further elaborate on the meaning of these findings in the next two chapters.

Ambiguity as a Resource for Actualising a Democratic Process

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In this chapter, I will build further on the analysis of my empirical material for answering my first research question: "Which forms of ambiguity are activated in a participatory design practice with children; and which role(s) can these forms of ambiguity play in actualising a democratic process in participatory design practices with children?" I will start this chapter by explaining the role of ambiguity in the making of democratic processes. I will elaborate on the particularities and effects of each of the three "forms of ambiguity" (Gaver et al., 2003) and explain how they interact (5.1). In the second part, I will explain the mechanism of actualising a democratic process through ambiguity by zooming in on its three requirements. These requirements, as I will show, demand that 1) the workshop actors consciously experience several meanings about the workshop structure and make ambiguity *workable*; 2) the workshop actors in equality with each other negotiate the diversity of meanings; and 3) the workshop actors actualise one/more/all meaning(s) responsibly (5.2). Finally, in the third part of this chapter, I want to reflect on the meaning of my findings (5.3).

5.1
The Roles of Ambiguity in Actualising a Democratic Process

From my analysis, I learned that all three forms of ambiguity (Gaver et al., 2003) were present in the *Public Play* workshops. In most of the cases, a workshop situation held more than one form of ambiguity at the same time (e.g. *The Birth of Mister Wiels* and other examples in table 4.1). Furthermore, I discovered that the forms of ambiguity can interact with each other. This means that the presence of one form of ambiguity had an effect on awakening another form of ambiguity. For instance, in the same workshop situation, *The Birth of Mister Wiels*, the workshop actors experienced "ambiguity of information" (ibid.) due to openness in the assignment which was in turn due to novel and complex information about the assignment. This openness in the assignment enabled the child participants to interpret the assignment in different ways which, in turn, encouraged them to work on the assignment in a different way from the way that the designer had planned. The complex information of the assignment, introducing an art and research context, also enabled them to interpret the assignment and

the workshop question in new contexts which awakened the experience of "ambiguity of context" (ibid.).

Furthermore, my analysis showed that workshop actors can react in different ways when experiencing ambiguity and that each form of ambiguity plays a different role in the actualisation of a democratic process.

Ambiguity of Information

"Ambiguity of information" (Gaver et al., 2003) was present in the *Public Play* workshops when the workshop actors experienced several meanings about the workshop assignment, material, or setting. This made the workshop actors aware in different ways of the variety of interpretations of the workshop assignment, material or setting.

The workshop actors reacted in different ways when they experienced "ambiguity of information" (ibid.).

Firstly, in some cases, they experienced uncertainty which confused them and withheld them from dealing with these several meanings. In many such cases, the workshop actors looked for secure solutions by interpreting the workshop assignment, material, or setting conventionally. In practice, the child participants reduced the diversity of meanings regarding the assignment/material/setting by prioritising the meaning that was suggested by the adult designer. For instance, in the workshop situation described in #4 *Empty Room with Principles*, the young participants experienced too much openness due to openness in the setting, their role, and the context. They experienced uncertainty which withheld them from taking action. Because the facilitator did not provide any suggestion herself, the young participants took a waiting position whilst seeking for security in their group. Thus they did not dare to take any risks by suggesting new initiatives and instead played a conventional role—as they usually did in the school context.

Secondly, in other cases, the diversity of meanings triggered the workshop actors to consider these meanings and use these meanings in the actualisation of the process. The diversity of meanings offered different possibilities for actualising the process in new ways and possibly a different way from that suggested/prescribed by the designer. In some cases, the actualisation of several meanings happened in a smooth way. This was the case when several meanings could co-exist without producing conflict. For instance, in the #1 *The Birth of Mister Wiels* work-

shop situation, when the workshop actors collectively constructed the video-camera sculpture Mister Wiels, they could easily actualise their diversity of meanings without these different meanings hindering each other. In many other cases, the actualisation of their different meanings produced conflicts. When the workshop actors experienced such conflicting meanings, they had to negotiate these meanings' actualisation. This negotiation happened by discussing or testing the various meanings, or through voting. One instance was the meta-discussion and voting about the role-playing game rules in the workshop situation described in #8 *The Chair Dance* and another was the workshop actors' discussion and testing in #4 *Body Scans*. However, there were also situations in which a workshop actor/some workshop actors/a workshop actor category decided to actualise one meaning (her/his/their preferred meaning) without negotiation. Because in this case the other workshop actors were not involved in the decision-making—hence there was no equal involvement in decision-making—the actualisation of these several meanings did not result in a democratic process. One instance was the facilitator prioritising her own meanings in #2 *Interviewing the Parking Meter* and another was the child participants prioritising their own meanings in #6 *The Car Wrestlers*.

From analysis of workshop situations in which the workshop actors experienced "ambiguity of information" (ibid.), I can conclude that when the workshop actors used the emerging diversity of meanings for the process actualisation, there was a good chance that the workshop assignment, material, or setting were actualised in a different way from that initially planned and prescribed by the designer. However, this was no guarantee for actualising a democratic process. In order for the experience of "ambiguity of information" (ibid.) to result in a democratic process, the workshop actors had to negotiate the diversity of meanings through the equal involvement of all of them and to actualise the diversity of meanings responsibly. The workshop actors' equal involvement in negotiating the diversity of meanings meant that the child participants had an actual say in how the assignment, material, or setting were actualised. Also, the designer was open to reconfiguring her/his initial plans whilst considering the possibilities suggested by child participants—their suggestions about how to actualise the assignment, material, and setting.

Furthermore, from the analysis, I learned that actualising a democratic process through "ambiguity of information" (ibid.) enabled the workshop actors to develop and actualise new perspectives on the

content of a process—i.e., its assignments, materials, and settings. In other words, "ambiguity of information" (ibid.) had an effect on the *what* of the democratic process. This means that "ambiguity of information" (ibid.) can empower child participants to create small but real changes in *what* this process is whilst encouraging the designer to consider and include the child participants' suggestions about the process content. It also means that "ambiguity of information" (ibid.) has an effect on the here and now. This enables the production of directly noticeable concrete changes that are however not long-lasting. In other words, the effects of "ambiguity of information" (ibid.) are restricted to what these changes mean in the specific situation. Thus these concrete and immediate content changes produce positive confirmation, activation, and encouragement but they do not reward participants with profound and long-lasting changes. For instance, in the workshop situation described in #4 *Body Scans*, "ambiguity of information" (ibid.) enabled the workshop actors to have an equal say about the way they actualised the body scan assignment and used their bodies as material. This change in child–adult interactions—the designer and child participants actualised the assignment and the material together, democratically—was directly noticeable but limited to the time span of the assignment.

Finally, I also learned that the actualisation of such small and immediate changes in content can stimulate new perspectives on the workshop actors' roles and the workshop goal, hence helping to awaken "ambiguity of relationship" (ibid.) and "ambiguity of context" (ibid.) that may result in the development of more profound and long-lasting changes in the workshop actors' roles and the workshop goal.

Ambiguity of Relationship

"Ambiguity of relationship" (ibid.) was present when the workshop actors experienced several meanings in their roles. This made them aware of different interpretations of their roles. The workshop actors' reaction to their conscious experience of "ambiguity of relationship" (ibid.) was similar to their particular reactions when experiencing "ambiguity of information" (ibid.), i.e. uncertainty, using the diverse meanings in the process actualisation, and negotiating their actualisation.

From analysing the workshop situations in which the workshop actors experienced "ambiguity of relationship" (ibid.), I can conclude that

when the workshop actors used the emerging diversity of meanings for the process actualisation, there was a good chance that their roles were actualised in a different way from that initially planned and prescribed by the designer but, again, that alone was no guarantee for actualising a democratic process. Similarly to the way that "ambiguity of information" (ibid.) resulted in a democratic process, the workshop actors had to negotiate the diversity of meanings regarding their roles through the equal involvement of the all workshop actors and actualise the diversity of meanings responsibly. Such equal involvement in the negotiation meant that the child participants had a real say in how their roles were actualised and that the designer was open to reconfiguring her/his initial plans whilst considering the roles suggested by child participants.

Furthermore, from the analysis, I learned that actualising a democratic process through "ambiguity of relationship" (ibid.) enables the workshop actors to develop and actualise new perspectives on the roles they take in the process—i.e., how a workshop actor plays her/his own role and interacts with other workshop actors' roles. In other words, "ambiguity of relationship" (ibid.) has an effect on the *how* of the democratic process. Firstly, "ambiguity of relationship" (ibid.) can empower child participants to effect small but real changes in *how* they participate in the workshop by actualising alternative roles for working on the process content together with other workshop actors. Secondly, "ambiguity of relationship" (ibid.) encourages the designer to include the child participants' role suggestions in the process actualisation. It also means that "ambiguity of relationship" (ibid.) and its reconfiguration of conventional workshop actor roles requires time and will only produce changes in the (near) future. Despite the slow effects of "ambiguity of relationship" (ibid.), it can produce profound and long-lasting changes in the workshop actors' roles. Furthermore, the patience required for actualising these slow-developing role changes is compensated for by the satisfaction resulting from the directly rewarding short-term content changes produced through "ambiguity of information" (ibid.). For instance, in the workshop situation described in #3 *Empty Room with Principles*, experiencing "ambiguity of relationship" (ibid.) enabled the workshop actors to have an equal say about the way they actualised their roles. This role change was not directly noticeable but remained active beyond that particular situation. In other words, once the child participants started to play an alternative role, they became motivated to keep that role or develop it further throughout the subsequent situations.

Finally, I learned that the actualisation of such slow-developing, profound and long-lasting role changes can stimulate new perspectives on the workshop goal, hence helping to awaken "ambiguity of context" (ibid.). However, the actualisation of such role changes requires activation through immediate small changes in content which means that "ambiguity of relationship" (ibid.) builds on "ambiguity of information" (ibid.).

Ambiguity of Context

"Ambiguity of context" (Gaver et al., 2003) was present when the workshop actors experienced several meanings in the workshop goal. This made them aware of different interpretations of the workshop goal. The workshop actors' reaction to their conscious experience of "ambiguity of context" (ibid.) was similar to their particular reactions when experiencing "ambiguity of information" and "ambiguity of relationship" (ibid.), i.e. uncertainty, using the diverse meanings in the process actualisation, and negotiating their actualisation.

From analysing the workshop situations in which the workshop actors experienced "ambiguity of context" (ibid.), I can conclude that when the workshop actors used the emerging diversity of meanings for the process actualisation, there was a good chance that the workshop goal was actualised in a different way from that initially planned and prescribed by the designer. However, again, that alone was no guarantee for actualising a democratic process. Similarly to the way that "ambiguity of information" and "ambiguity of relationship" (ibid.) resulted in a democratic process, the workshop actors had to negotiate the diversity of meanings regarding the goal through the equal involvement of all the workshop actors and actualise the diversity of meanings responsibly. This equal involvement in the negotiation meant that the child participants had a *real* say in how the goals were actualised and that the designer was open to reconfiguring her/his initial plans whilst considering the goals suggested by child participants.

Furthermore, from the analysis, I learned that actualising a democratic process through "ambiguity of context" (ibid.) enabled the workshop actors to develop and actualise new perspectives on the agenda they used for actualising the process. In other words, "ambiguity of context" (ibid.) has an effect on the *why* of the democratic process; meaning that "ambiguity of context" (ibid.) can empower child participants to bring

small but real changes in *why* they participate in the workshop whilst encouraging the designer to include the child participants' agenda suggestions in the process actualisation. It also means that "ambiguity of context" (ibid.) and its reconfiguration or extension of the predefined workshop agenda requires time and will only produce changes in the (near) future. Despite the slow effects of "ambiguity of context" (ibid.), it can produce profound and long-lasting changes in making the child participants involve their personal agenda in child–adult interactions. Furthermore, the patience required for actualising these slow-developing agenda changes is compensated for by the satisfaction resulting from the directly rewarding short-term content changes produced through ambiguity of information (ibid.). For instance, in the workshop situation described in #1 *The Birth of Mister Wiels*, experiencing "ambiguity of context" (ibid.) enabled the workshop actors to have an equal say about what agenda(s) to use when actualising the process. This change in agenda was not directly noticeable but remained active beyond that particular situation. In other words, once the child participants started to use an alternative agenda in the process actualisation of one situation, they were motivated to keep that agenda or develop it further throughout the subsequent situations.

Finally, I learned that the actualisation of such slow-developing, profound and long-lasting agenda changes can stimulate new perspectives on the workshop actors' roles, and hence help to awaken "ambiguity of relationship" (ibid.). However, the actualisation of such goal changes requires activation through immediate small changes in content which means that "ambiguity of context" (ibid.) builds on "ambiguity of information" (ibid.).

Interacting Forms of Ambiguity

I have already pointed out the simultaneous presence of the three "forms of ambiguity" (Gaver et al., 2003) in most *Public Play* workshop situations. Whereas the previous three sections focused on the presence of each of these individual forms, I will now elaborate on the ways in which these three "forms of ambiguity" (ibid.) interact.

From my analysis, I learned that changing the content of the process (ambiguity of information) is easier to produce because these small and short-lasting changes do not involve a lot of risks. In other words,

Forms of Ambiguity (Gaver et al., 2003)	Type of Change Produced by These Forms of Ambiguity	Character of These Changes	Frequency	Time Occurrence of These Changes
Ambiguity of information	Content changes	Immediately noticeable changes with short-lasting effects	Highly frequent	Throughout the process, from the very start till the end
Ambiguity of relationship	Role changes	Changes noticeable in the long term with profound and long-lasting effects	Less frequent	Later in the process and when preceded by "ambiguity of information" (ibid.)
Ambiguity of context	Goal changes	Changes noticeable in the long term with profound and long-lasting effects	Less frequent	Later in the process and when preceded by "ambiguity of information" (ibid.)

Table 5.1
Overview of the "forms of ambiguity"
(Gaver et al., 2003) and the changes they
can produce.

in case the change in content is not successful, the effect is not very long-lasting and far-reaching and may be easily restored by making another change in content. However, changes in roles and agendas are more profound and long-lasting and therefore they hold more risk and are more difficult to make.

I also learned that changing the content of the process (ambiguity of information) happened more frequently than changing roles (ambiguity of relationship) and agendas (ambiguity of context). However, the changes in roles and agendas—that are only noticeable in the long term—need to be activated and nurtured through making continuous changes in content; changes that can be more easily and quickly developed. Thus content changes providing immediate rewards empower the workshop actors. This in turn has a positive effect on making more changes in content and, more crucially, on also making changes in roles and agendas that are more profound and long-lasting.

Furthermore, changes in content most often only affect the actual workshop process and outcome whereas changes in roles and agendas—producing long-lasting and far-reaching effects—can also have an effect beyond the particular workshop situations and can even affect the workshop actors' behaviour outside the workshop. For instance, if a child participant becomes aware about how s/he can implement her/his personal agenda in the workshop process, s/he may also want to do this when s/he interacts with adults at home, in the sports club, or even at school. As such, producing changes in roles and agendas has a positive effect on democratising child–adult interactions in a wider context.

Ambiguity as a Resource for Actualising a Democratic Process

In this first part of this chapter, I have shown that the presence or conscious awareness of ambiguity helped the workshop actors to make explicit their different meanings regarding process content, roles, and agendas. When the workshop actors experienced adequate but not too much openness with regard to the workshop structure, they were able to use a diversity of meanings for actualising the process in a different way from that initially planned by the designer. I also learned that using the diversity of emerging meanings in the process actualisation had a positive effect on actualising a democratic process. From my analysis, I learned that

a democratically actualised process can build upon the actualisation of one meaning (consensus) or a diversity of meanings (plurality). However, my analysis has shown that the workshop actors' engagement in using those different meanings in the process actualisation did not always result in a democratic process. The actualisation of a democratic process also depended on whether all the workshop actors were *equally* involved in the forthcoming decision-making (i.e. negotiation) and whether the process actualisation safeguarded *just* behaviour (i.e. responsibilities).

Thus we can conclude that ambiguity can be a resource for actualising a democratic process and plays a particular role in helping the workshop actors to make their different meanings explicit. The workshop actors are free to share their personal meanings/opinions about the process actualisation. More specifically, "ambiguity of information" (ibid.) allows the workshop actors freedom of choice regarding the content actualisation by opening up the solely designer-defined meaning of the workshop assignments, materials, and settings. And "ambiguity of relationship" (ibid.) allows the workshop actors freedom of choice regarding role actualisation by opening up the solely designer-defined meaning of the workshop actors' roles. Finally, "ambiguity of context" (ibid.) allows the workshop actors freedom of choice regarding the actualisation of the agenda by opening up the solely designer-defined meaning of the workshop goal.

Furthermore, I can conclude that using ambiguity as a resource for actualising a democratic process has a positive effect on actualising a diversity-rich process. Although actualising a democratic process through ambiguity can also result in a consensus-based democratic process, the particular quality of working with ambiguity—opening up a diversity of meanings and possibilities—allows the production of a diversity-rich democratic process. In other words, actualising a democratic process through ambiguity does not only enable all the workshop actors to have an equal say in the impartial actualisation of the process but more so, it enables the actualisation of a diversity-rich process that includes the particular values, backgrounds, and interests of the diversity of actors involved.

5.2
Requirements for Actualising a
Democratic Process Through Ambiguity

In the previous part, I unpacked the role of ambiguity in actualising a diversity-rich democratic process by focusing on the different effects of the three "forms of ambiguity" (Gaver et al., 2003). In this second part, I will elaborate on how a participatory design practice with children can be actualised as a democratic process by working with ambiguity. I want to start this second part by reiterating that the actualisation of a democratic process requires freedom, equality, and justice that respectively correspond to fulfilling the following three criteria:

1   Appropriating ambiguity: the workshop actors consciously experience ambiguity within the workshop structure—i.e., they become aware that the workshop structure is experienced and understood in different ways (i.e. different meanings) by different participants—and they use the emerging diversity of workshop structure meanings in the actualisation of the process.

2   Negotiating through equal involvement: the workshop actors negotiate the different meanings, and the possibilities they create, on the basis of their equal involvement in this decision-making whilst aiming to maintain the diversity of meanings.

3   Fulfilling responsibilities: the workshop actors fulfil their responsibilities when actualising those new meanings and possibilities in the workshop process.

Appropriating Ambiguity

Consciously Experiencing an Ambiguous
Workshop Structure

Even though "the everyday world itself is inherently ambiguous" (Gaver et al., 2003, p. 231), we do not always experience it as ambiguous. Similarly, practices that work in a participatory way are somehow inherently ambiguous—they assemble many different individuals, each of them bringing her/his own background, values, and interests. Nevertheless, these individuals will probably interpret the same situation in a similar way because of e.g. cultural norms and prioritising time-efficient collaboration. Thus,

in order to use ambiguity as a resource for actualising a democratic process, the workshop actors need consciously to experience an ambiguous workshop structure, hence developing awareness that the workshop structure is experienced and understood in different ways (i.e. different meanings).

Before continuing, let me briefly reiterate the importance of experiencing ambiguity in relation to the workshop structure. Because the workshop structure is the main support structure guiding the process actualisation, it is the main factor with power to influence and change the process actualisation, hence work on democratising the process actualisation.

As I have just mentioned, in many cases, ambiguity is not consciously experienced. Individual workshop actors *automatically* eliminate a diversity of meanings in their interpretation process because they prioritise e.g. cultural norms and time-efficient collaboration. This also means that prioritising cultural norms and time-efficient collaboration can obstruct the conscious experience of ambiguity.

Firstly, cultural norms. Through upbringing, education and other social practices, we have all learnt what is *allowed* and *not allowed* when socialising. We have also learnt what is productive or counterproductive when collaborating. Cultural norms prescribe specific behaviour whereby ambiguities are *automatically* manoeuvred away. Human social interactions are more inclined to exclude some levels of ambiguity through such *automated* normative behaviour. This is particularly the case when adults collaborate with adults or older children, like teenagers, because both have been culturally conditioned for a long time. On the other hand, when adults collaborate with children—especially young children who are not yet so culturally conditioned and therefore tend to be more open to interpreting situations in a less conventional way—there is a better chance that ambiguity will come to the surface.

Secondly, many people who organise collaborations with a diversity of actors mostly aim to avoid ambiguity because dealing with different interpretations will probably make the collaboration more complex and difficult (Edmonson, 2006; Bendl et al., 2015). Therefore, many organisers prefer to take the easy road by emphasising their common ground—a shared discourse or context for interpreting a situation—instead of working with their differences. Such shared interpretation will make it easier to collaborate but it will also produce fewer unexpected outcomes, hamper change, and above all, it will probably sustain normative power relationships between the collaborating actors.

As my analysis has shown, the designer/facilitator can play a role in awakening a conscious experience of ambiguity by opening up the interpretation of the components of the workshop structure when s/he designs and facilitates the workshop structure.

Dealing With Uncertainty

Despite the fact that ambiguity can promote awareness about the diversity of workshop structure meanings, it can also bring along some potentially negative aspects, uncertainty most probably being the biggest challenge. Uncertainty mainly manifests itself through insecurity, fear, stillness, and non-action. Although uncertainty can stimulate critical thinking before going into action, uncertainty can also be counterproductive when e.g. hindering the workshop actors from working with the diversity of meanings. For instance, in the workshop situation described in #3 *Empty Room with Principles*, the teenage participants experienced too much ambiguity which made them feel insecure and return to the safety of normative behaviour/practice and its conventional power imbalance. The facilitator her-/himself may also experience the troubles of uncertainty when opening up her/his plans and usual approach or when s/he shares control with others. A common, but unproductive, response from facilitators who experience uncertainty is a return to her/his habitual approach where everything feels familiar and comfortable, where s/he can control and manage situations, and where things happen as expected. See for instance the facilitator's behaviour in #2 *Interviewing the Parking Meter*.

The designer/facilitator can play a role in reducing uncertainty by closing the interpretation of (some of) the components of the workshop structure when s/he designs and facilitates the workshop structure and by helping to develop trusting relationships.

Creating a Semi-Open Workshop Structure

By *appropriating ambiguity*, I mean the process of consciously experiencing ambiguity and subsequently reducing uncertainty so that the workshop actors make ambiguity *workable* so they can use the diversity of workshop structure meanings in the actualisation of the process.

From my analysis, I learned that making ambiguity *workable* depends on a specific balance of openness in the overall workshop structure. When the workshop actors experienced the workshop structure as too open or not open enough, they could not work with the diversity of workshop structure meanings. In the first case, when too many components of the workshop structure were open to interpretation, the workshop actors most often only experienced doubt and uncertainty. In the other case, when too few components of the workshop structure were open to interpretation, the workshop actors were most likely to interpret the workshop structure in a conventional way, hence actualising conventional child–adult relationships and interactions resulting in a typical adult-directed process. From this I have concluded that a semi-open workshop structure is the best condition for appropriating ambiguity,—i.e. making ambiguity workable. By a *semi-open workshop structure*, I mean a certain level of openness, necessary for generating new meanings, accompanied by a balanced level of closeness offering some kind of security from which the workshop actors can produce meaning, hence involving them in the actualisation of the process.

I learned that the designer can play an important role in developing this semi-open workshop structure by balancing a diversity of components: the components of the workshop structure, the surrounding components, and the responsibility components.

The Components of the Workshop Structure

Developing a balanced level of openness in the interpretation of the workshop structure can be reached by introducing openness into some components of the workshop structure whilst keeping others closed. The workshop structure consists of six components: the workshop assignment, material, setting, child participant role, facilitator role, and goal.

The designer can influence these workshop components when s/he designs and facilitates the workshop structure. My analysis revealed specific relations between introducing openness into certain components of the workshop structure and experiencing certain "forms of ambiguity" (Gaver et al., 2003). More specifically, when the designer/facilitator introduces openness into the workshop assignments, materials, or settings, there is a big chance of awakening the conscious experience of "ambiguity of information" (ibid.). When the designer/facilitator introduces openness into the workshop actors' roles, there is a big chance of awakening the conscious experience of "ambiguity of

relationship" (ibid.). When the designer/facilitator introduces openness into the workshop goal, there is a big chance of awakening the conscious experience of "ambiguity of context" (ibid.).

The Surrounding Components

There exist other components besides the components of the workshop structure that can influence the level of openness, hence influencing the creation of a semi-open workshop structure. These components are not part of the workshop structure itself but surround and inform the workshop structure. I will therefore refer to this type of component as: *surrounding components*. I identified four surrounding components: time, participant group, participants' ambiguity (in)tolerance, and context.

The surrounding components create an open or closed interpretation space that can either amplify or reduce the openness of the workshop structure. By an *interpretation space*, I mean an environment that stimulates an open/alternative interpretation or a closed/conventional interpretation of the workshop structure. More concretely, a high overall level of openness in the surrounding components (time, participant group, participants' ambiguity (in)tolerance, and context) contributes to an open interpretation space—i.e., an environment that stimulates an open and alternative interpretation of the workshop structure. A low overall level of openness in the surrounding components (time, participant group, participants' ambiguity (in)tolerance, and context) creates a closed interpretation space—i.e., an environment that stimulates a closed and conventional interpretation of the workshop structure.

In many cases, the designer/facilitator has little or no control of the surrounding components. However, the surrounding components—creating an open or closed interpretation space—influence the semi-open balance of the workshop structure and therefore the designer/facilitator needs to estimate and consider their effect when working on the semi-open workshop structure. This implies that the designer needs to predict the effects of the surrounding components before s/he designs the workshop structure and keep estimating and considering them whilst designing and facilitating the workshop structure.

I will now zoom in on the specific surrounding components and elaborate on their individual effects for creating an open or closed interpretation space.

Time—This is the time span of a workshop. When a workshop runs over a short time span, it will probably close the interpretation of

the workshop structure because of the need to produce results in a short time span. In contrast, running a workshop over a longer time span gives more space for experimenting with openness.

Participant group—The *participant group* component consists of a mixture of different subcategories: the participants' internal relationships, their age and maturity, and their backgrounds.

Participants' internal relationships. This component concerns the workshop participants' pre-existing or new relationships. Firstly, when the workshop participants know each other before joining the workshop, this will probably close the interpretation of the workshop structure. In pre-existing internal relationships, workshop participants share the same context which means that their interpretations will probably proceed as they usually do in this shared context. Furthermore, there is a difference between whether there are just a few participants with pre-existing internal relationships or whether many/all participants have pre-existing internal relationships. Secondly, when the workshop participants are new to each other, they bring in a diversity of backgrounds and contexts and therefore they will most probably interpret the same workshop structure in different ways.

Participants' age and maturity. When the workshop participants are older and more mature, this will probably close the interpretation of the workshop structure because they have a better understanding of various contexts and are used to interpreting situations according to those specific contexts. This means that teenagers tend to interpret situations in a more normative way than younger children. When the workshop participants are younger, they are less conditioned but more likely to interpret situations according to their own limited contexts. However, when the participant group includes a mixture of ages and maturity, this helps to assemble different interpretations according to their different capacities and knowledge.

Participants' background. This concerns aspects that constitute the participants' identity: their personal interests and ambitions, their education but also their class, origin, (religious) beliefs, geography, etc. Assembling participants with different backgrounds tends to create a more open interpretation space compared with assembling participants with similar backgrounds. *Participants' ambiguity (in)tolerance*—By "ambiguity tolerance",

Else Frenkel-Brunswik means the degree to which an individual is comfortable with ambiguity: the unknown, conflicting directions, uncertainty, and multiple demands (Frenkel-Brunswik, 1948 & 1949). In other words, ambiguity tolerance concerns people's ability to operate effectively in uncertain situations. Ambiguity intolerance, on the other hand, concerns people's inability to handle adverse feelings towards uncertain situations. As a result, workshop actors with ambiguity tolerance tend towards an open interpretation space whereas workshop actors with ambiguity intolerance tend to close the interpretation space.

Context — By the *context* component, I mean the influence of actors directly or indirectly involved in the workshops and their context. Actors who are directly involved are e.g. child-carers, policymakers, and actors who are indirectly involved are the partners who take part in organising the workshop (e.g. an educational department of an art institution, a research partner). Whereas the actors directly involved are present and visible in the workshop process, the actors indirectly involved are most often not present in the workshop process but nevertheless they can still influence whether the workshop actors tend to interpret the workshop structure in an open or closed way. Furthermore, when the directly and/or indirectly involved actors bring in a context that is rather traditionally orientated, this will probably close the interpretation of the workshop structure. When they bring in an experimentally orientated context, this will probably open up the interpretation of the workshop structure. For instance, a school context is typically considered as a context that produces a conventional, thus closed, interpretation. An art organisation context is typically considered as a context that evokes alternative or radically new interpretations. However, depending on the kind of school and depending on the kind of art organisation, they may produce the opposite effect. It is therefore important to develop a good understanding of each partner.

The Responsibility Components

There is yet another category of components that should be considered when working on a semi-open workshop structure. When the designer/facilitator introduces openness into the components of the workshop structure, s/he should not open up the meanings of certain responsibilities because this may result in unjust behaviour. In other words, the designer/facilitator should safeguard a closed interpretation of the workshop actors' responsibilities when working on the semi-open workshop

structure. There are four responsibility components: safe behaviour, ethical behaviour, the workshop question, and a democratic outcome.

The facilitator can support the workshop actors' fulfilment of their responsibilities by ensuring that they keep these meanings closed when interpreting, negotiating, and actualising the diversity of meanings.

I will now explain why the interpretation of the responsibility components should stay closed.

Safety—The workshop actors should meet basic human responsibilities that ensure that their actions do not produce harmful effects for themselves and others. If the designer/facilitator were to open up the meaning of safety, the workshop actors might possibly resort to unsafe actions and interactions.

Ethics—As with safety, every human being has basic responsibilities that guarantee ethical behaviour. If the designer/facilitator were to open up the meaning of ethics, the workshop actors might possibly resort to unethical behaviour.

The workshop question—The workshop question is the ultimate reason why the workshop actors have agreed to assemble and collaborate. The workshop actors should agree on the meaning of the workshop question and keep it closed in order to guarantee their collaboration. If the designer/facilitator were to open up the meaning of the workshop question, collective group power might possibly become weak, fragmented, and even dispersed. In addition, eliminating the workshop actors' common concern (the workshop question) might enable a workshop actor/some workshop actors/a workshop actor category to reconfigure the question according to her/his/their personal meanings, hence increasing the actualisation of an undemocratic process in which only the personal meanings of one or a few have been prioritised. I define such situation as a *disambiguation in favour of oneself*.

A democratic outcome—It sounds logical that when the workshop actors aim to actualise a democratic process, they also aspire to democratic improvement in general and to producing a democratic outcome in particular. Although it is hard to predict a specific outcome when actualising a democratic process through ambiguity, workshop actors should keep the ambition to actualise a democratic outcome at the back of their minds. This also means that workshop actors should agree on the meaning of a democratic outcome and keep this meaning closed in order to guarantee this democratic outcome. If the designer/facilitator were to open up the collectively decided meaning of the democratic

outcome, the democratically or undemocratically actualised process might possibly result in an undemocratic outcome.

Negotiating Through Equal Involvement

Four Forms of Negotiation

The second criterion for actualising a democratic process requires that all the workshop actors are *equally* involved in negotiating how diverse meanings are actualised in the process. From my analysis, I identified three forms of negotiation that have a positive effect on actualising a democratic process: co-existing meanings, conflicting meanings not requiring a choice, and conflicting meanings requiring a choice with equal decision-making. These forms differ in the way they actualise one or more meanings/possibilities (diversity) and how they do this. I also identified a fourth form of negotiation, conflicting meanings without equal decision-making, that does not produce a democratic process.

The following table (table 5.2) gives an overview of the four *forms of negotiation* and the type of process they tend to produce if the workshop actors meet their responsibilities. In the light of my research aim, we can read this table as a diagram with a specific order. At the top, we find the most preferred form of negotiation producing a diversity-rich democratic process.

Co-Existing Meanings

In a situation with *co-existing meanings*, the workshop actors have different meanings that do not conflict with each other when actualising them in the process. In other words, the different possibilities suggested by the workshop actors can simultaneously be put into practice without interfering with each other. Thus a situation with a *co-existing meanings* negotiation does not need much negotiation. Furthermore, a negotiation based on *co-existing meanings* has a positive effect on actualising a democratic process because the different possibilities suggested by the workshop actors are equally considered when actualising the process. Moreover, this form of negotiation tends to produce a diversity-rich democratic process.

The workshop situation described in #1 *The Birth of Mister Wiels* is a good example illustrating such negotiation. In this situation, the

Form of Negotiation	Type of Actualised Process
Co-existing meanings	Diversity-rich democratic process based on the simultaneous actualisation of the workshop actors' meanings.
Conflicting meanings not requiring a choice	Diversity-rich democratic process based on the actualisation of the workshop actors' meanings through using e.g. *alternating times* or *group division*.
Conflicting meanings requiring a choice with equal decision-making	Single democratic process based on the workshop actors' agreement reached through e.g. *discussion, voting*, and/or *testing*.
Conflicting meanings without equal decision-making	Undemocratic process based on the unequal involvement of the workshop actors in their decision-making through e.g. *disambiguation in favour of oneself* or *disambiguation in favour of other(s)*.

Table 5.2
Overview of the four forms of negotiation
and the type of process they can produce.

workshop actors experienced "ambiguity of information" (Gaver et al., 2003) due to openness in the workshop assignment. The facilitator interpreted the assignment as a means to camouflage the video-camera meant for research purposes transparently. The child participants interpreted the assignment as a means to create an imaginary friend that allowed them to work with the video-camera in a playful way. The workshop actor categories interpreted the assignment according to their personal meanings (values, backgrounds, and interests) whilst at the same time also accepting the meaning proposed by the other workshop actor category: the designer/facilitator. Both workshop actor categories actualised the diversity of meanings in the process; the designer accepted and used the meanings/possibilities suggested by the child participants and the child participants accepted and used the meaning/possibility suggested by the designer.

Conflicting Meanings Not Requiring a Choice

In a situation with *conflicting meanings not requiring a choice*, the workshop actors interpret the workshop structure (component) in different ways, each suggesting different meanings/possibilities for actualising the workshop structure (component). These different meanings/possibilities cause conflict when the workshop actors put them simultaneously into practice but nevertheless the workshop actors' negotiation manages to put these different meanings/possibilities into practice; however not simultaneously. Furthermore, a negotiation based on *conflicting meanings not requiring a choice* has a positive effect on actualising a diversity-rich democratic process because the different meanings/possibilities suggested by the different actors are equally considered and used when actualising the process.

From the *Public Play* workshops, I identified two ways of actualising *conflicting meanings not requiring a choice*: working with *alternating times* or *group division*. By *alternating times*, I mean the way in which the workshop actors managed to actualise their different meanings/possibilities by putting one possibility into practice after another. By *group division*, I mean the way in which the workshop actors divided themselves into separate groups and each group put a different meaning/possibility into practice. Thus a negotiation based on *conflicting meanings not requiring a choice* focuses on finding ways in which the different conflicting meanings/possibilities can still be actualised without choice-making.

The workshop situation described in #7 *The Car Wrestlers* is a good example of this form of negotiation using *alternating time*. In this situation, we can see that the workshop actors experienced "ambiguity of information" (ibid.) due to openness in the setting. Different child participants had different ideas about what location to use for conducting the *Herrekijkers* assignment. The child participants group transformed into two conflicting camps, each proposing its own location. Through their negotiation, the workshop actors decided to explore both locations but at different times. This means that one camp of child participants accepted and used the meaning/possibility suggested by the other camp and vice versa. The workshop situation described in #2 *Interviewing the Parking Meter* illustrates the *group division* alternative. In this situation, we can see that the workshop actors experienced "ambiguity of relationship" (ibid.) due to openness in their roles. Different child participants had different ideas about which role to play when working on the urban walk assignment. The child participants group transformed into two camps, each proposing its own role: the younger children wanted to explore the neighbourhood in a more playful way whereas the two older girls were interested in making journalistic reports. Through their negotiation, the workshop actors decided to actualise both roles but in different groups. This means that the two older child participants played a more reflective role (as journalists) whilst accepting the way that the other group of child participants played a more explorative role (as children playing), and vice versa.

Conflicting Meanings Requiring a Choice With Equal Decision-Making

As in the second form of negotiation, in this third form, the workshop actors interpret a workshop structure (component) in different ways, each suggesting different meanings/possibilities for actualising the workshop structure (component). These different meanings/possibilities cause conflict when the workshop actors put them simultaneously into practice. However, in this case, the workshop actors do not manage to actualise the diversity of meanings/possibilities through their negotiation. Thus they are forced to make a choice and decide which single meaning/possibility—out of many meanings/possibilities—they are going to put into practice. The decision of *which* meaning/possibility to actualise is also a question of *whose* meaning/possibility is going to be actualised and therefore such situations are very sensitive for being subject to unequal power relationships. In this third form of negotiation,

the workshop actors' negotiation focuses on making a choice through the equal involvement of all of the workshop actors. In other words, the workshop actors need to decide about their choice on the basis of equal involvement and equal power relationships. Furthermore, a negotiation based on *conflicting meanings requiring a choice with equal decision-making* has a positive effect on actualising a democratic process. However, in this case, the workshop actors make a choice from the diversity of meanings, hence they reduce the diversity of meanings/possibilities to a single defined process.

From the *Public Play* workshops, I have identified three ways or *formats* that support such choice-making: discussion, voting, and testing. These formats can be used as *pure* formats or in combination with each other, e.g. discussion followed by voting or testing supplemented with discussion. In the *discussion* format, the workshop actors use the spoken word for a back and forth exchange of arguments and reflections leading to a common choice. In the *voting* format, the choice is made on the basis of the most frequently mentioned meaning/possibility. Finally, in the *testing* format, the workshop actors use action—i.e., making, doing, ...—for communicating their preferred meaning/possibility and responding to this suggestion (confirm, reject, etc.). Such testing consists of trial and error, implementing, adjusting, abolishing, etc. the meanings/possibilities implemented.

The workshop situation described in #8 *The Chair Dance* is a good example of the *discussion* format. In this situation, we can see that the workshop actors experienced "ambiguity of information" (ibid.) due to openness in the workshop assignment. The game rules of *The Chair Dance* discussion as conceived by the designer did not work for the game players. The child participants, the policymakers, and the facilitator suggested different and conflicting meanings of the game rules. They negotiated these conflicting meanings and slowly came to an agreement on how to adjust the initial game rules. The workshop actors discussed the different meanings/possibilities through their equal involvement, resulting in a democratic process.

Although I did not explicitly describe a voting situation in the written memorisations, it was used in e.g. the urban walk with Mister Wiels (see: #2 *Interviewing the Parking Meter*). Finally, the workshop situations described in #6 *The Car Wrestlers* and #3 *Empty Room with Principles* illustrate the *testing* format.

Conflicting Meanings Without Equal Decision-Making

The fourth form of negotiation is similar to the third form, except that in this form of negotiation, the workshop actors do not succeed in making a choice on the basis of equal decision-making. In other words, the workshop actors are not equally involved in making a choice from the different meanings/possibilities, hence they actualise unequal power relationships resulting in situations in which a workshop actor/some workshop actors/a workshop actor category take/s a "power-over" position (Lukes, 2005 [1974]). Furthermore, a negotiation based on *conflicting meanings without equal decision-making* does not result in a democratic process due to the unequal involvement of the workshop actors in the choice-making.

From the *Public Play* workshops, I identified two types of "power-over" positions (ibid.): *disambiguation in favour of oneself* and *disambiguation in favour of other(s)*. In a *disambiguation in favour of oneself*, a workshop actor/some workshop actors/a workshop actor category takes a "power-over" (ibid.) position by prioritising her/his/their own meanings/possibilities without considering the opinions and arguments of other workshop actors/another workshop actor category. In a *disambiguation in favour of other(s)*, a workshop actor/some workshop actors/a workshop actor category take/s a powerless position by prioritising the meanings/possibilities suggested by other workshop actors/another workshop actor category whilst ignoring her/his/their own personal meanings/possibilities.

The workshop situation described in #6 *The Car Wrestlers* provides a good example of *disambiguation in favour of oneself*. In this workshop situation, the workshop actors experienced "ambiguity of information" (Gaver et al., 2003) due to openness in the workshop material. The facilitator interpreted the rope as a tool for measuring a car but the child participants interpreted the rope as a tool for play. Whereas the facilitator considered the meaning proposed by the child participants, the child participants did not consider the facilitator's meaning and decided to actualise their personal meaning only. The lack of equal involvement in the choice-making led to an undemocratic process.

The workshop situation described in #2 *Interviewing the Parking Meter* is another example. However, in this case, it was the facilitator who prioritised her own meaning without considering the meaning suggested by one of the child participants.

The workshop situation described in #3 *Empty Room with Principles* is an example of *disambiguation in favour of other(s)*. The young partici-

pants ignored their personal meanings/possibilities whilst prioritising the meanings/possibilities imposed by the school.

Many Negotiation Languages

From my analysis, I also learned that different workshop actors can negotiate in different ways. I refer here to the different *languages* they use in their negotiation. Whereas the adults' negotiation language is usually limited to the spoken word, children's verbal language is not yet as developed as that of adults. However, children use a richer palette of languages for expression, negotiation, and discussion in multiple ways (Malaguzzi, 1970 from Cagliari et al., 2016) by using a diversity of *languages* (i.e. children's "hundred languages" (ibid.)) like spoken or written words, body language, sounds, drawing, modelling, etc. Thus when designers aim to involve all workshop actors equally in a negotiation, they also need to treat the many different negotiation languages equally.

Fulfilling Responsibilities

Types of Responsibility Engagements

The third criterion for actualising a democratic process requires that all the workshop actors produce *just* actions and interactions. In other words, the workshop actors need to meet their responsibilities when putting the diversity of meanings or the chosen meaning into practice. From my analysis, I identified two ways in which the workshop actors dealt with their responsibilities: ignoring responsibilities and shared responsibility fulfilment, where only the latter leads to the actualisation of a democratic process.

Ignoring Responsibilities

In a situation with *ignoring responsibilities*, a workshop actor/some workshop actors/a workshop actor category do/es not fulfil one or more of her/his/their responsibilities. Ignoring responsibilities does not result in producing *just* actions and interactions, hence it does not result in a democratic process.

For instance, in the workshop situation described in #6 *The Car Wrestler*, the child participants interpreting the rope as a tool for play

(ambiguity of information) led to the actualisation of free play with this rope. At certain moments, the child participants' play became too rough and certain children got hurt. Thus they did not meet their responsibility to produce safe actions and interactions.

Shared Responsibility Fulfilment

In a situation with *shared responsibility fulfilment*, all workshop actors are equally involved in the decision-making and they meet their responsibilities in the actualisation of the diversity of meanings/chosen meaning. Shared responsibility fulfilment safeguards *just* actions and interactions and therefore it has a positive effect on the actualisation of a democratic process.

For instance, in the first workshop situation described in #2 *Interviewing the Parking Meter*, the child participants interpreted the assignment—guiding Mister Wiels through the neighbouring public space—as an unplanned tour full of improvisations (ambiguity of information). This made the child participants propose a diversity of explorative activities. They also took responsibility for their initiatives; they made sure their activities did not harm anybody (both safety- and ethics-wise) and that their activities contributed to the workshop question whilst aiming for a democratic outcome.

5.3
Ambiguity as an Activator for Actualising a Pluralistic Democratic Process

In this section, I will elaborate on the virtue of ambiguity for actualising a pluralistic democratic process. I will highlight the meaning of ambiguity as an activator of the meta-process that works on the actualisation of a pluralistic democratic process. By the *meta-process*, I mean the process in which a democratic process is actualised; it consists of the workshop actors experiencing and appropriating ambiguity, their negotiation about forthcoming meanings, and their fulfilment of responsibility. I will also focus on the agonistic forces emerging from ambiguity and the need for careful engagement and time.

Ambiguity as an Activator of a
Democratisation Process

The ambiguity categorisation defined by William Gaver and his colleagues (2003) has helped me to unpack the complexity of ambiguity when aiming to actualise a participatory design practice with children as a democratic process. It has also produced an in-depth understanding of how designers can make ambiguity *workable*. However, given the different contexts in which each of us worked—Gaver et al. and myself—the ambiguity categorisation produced different insights for each of us.

Gaver and his colleagues explored the role of ambiguity in a human–computer interaction context. In this context, the designer designs the artefact/system in advance whereas the user interprets and interacts with the designed artefact/system after the artefact/system design is completed and without the designer being present. Building further on this context, Gaver et al. understood the role of ambiguity in a structural way. More concretely, their study has shown that different forms of ambiguity are present due to users' experiences of uncertainty in the information, relationship, or context of the designed artefact/system and that these users react differently to each of these categories of ambiguity (Gaver et al., 2003).

I myself explored the role of ambiguity in a participatory design context; more specifically in participatory design practices involving children. In this context, the designer does not create a designed artefact/system but s/he designs a framework (the workshop structure) that the various workshop actors involved will use to work together on a common issue/situation/question. Thus the designer's main role is to design the workshop structure. S/he does this partly in advance (before the stakeholders meet and collaborate) and partly during the workshop (while the stakeholders are meeting and collaborating). In other words, the designer has a second role in facilitating and adjusting her/his pre-designed workshop structure while the workshop participants are using the workshop structure. This means that the designer—as facilitator—is present when the stakeholders or the workshop participants are interpreting and interacting with the workshop structure. This also means that the facilitator can influence the workshop *participants'* interpretation and appropriation of the workshop structure. S/he can influence for good or bad. In the worst case scenario, the facilitator ignores, rejects, or corrects the child participants' interpretation

and appropriation, hence preventing the actualisation of a democratic process. In a good case scenario, the facilitator opens up for equally involving the child participants in the decision-making about how the diversity of meanings/possibilities is going to be actualised. The latter has a positive effect on actualising a democratic process. In an even better scenario, the facilitator also opens up for involving the child participants' meanings (representing their values, backgrounds, interests) in the actualisation of a diversity-rich democratic process.

Furthermore, my research findings have shown that the workshop actors' mutual involvement in the actualisation of the process does not only depend on their conscious experience and appropriation of ambiguity but also on how they subsequently negotiate the diversity of meanings and whether they fulfil their responsibilities. In other words, ambiguity is part of a larger process, a meta-process, in which ambiguity is the first link in the chain. In this meta-process, ambiguity mainly contributes to making the diversity of meanings explicit, and is an *activator* of the meta-process working on the actualisation of a democratic process. Thus my study points out a processual approach to ambiguity, in which openness in the interpretation of the workshop structure can result in the conscious experience and appropriation of ambiguity. This in its turn may lead to an equally driven negotiation of meanings which may result in either a consensus-based democratic process or a diversity-rich democratic process.

Ambiguity Enables a Pluralistic Democratic Process

Ambiguity enables awareness about different workshop actors interpreting the workshop structure in different ways so that the process can be actualised according to these different meanings/possibilities. Thus ambiguity opens up for actualising the process according to this diversity of meanings and can—when the workshop actors negotiate the diversity of meanings equally and responsibly—produce a process that includes this diversity of meanings representing the diversity of workshop actors: their values, backgrounds, and interests. In other words, the virtue of actualising a democratic process through ambiguity is the production of a pluralistic democratic process (Connolly, 2005; Mouffe, 2000).

Working on the actualisation of a pluralistic democratic process implies the necessity of dealing with conflicting meanings. In the *Public Play* workshops, the workshop actors were encouraged to see those conflicts—i.e. their differences in meaning—as a valuable means for developing a democratic process in which the diversity of workshop actors was included. In addition, the negotiation—and the facilitator's guidance in it—can help the workshop actors to transform those conflicts into actual components of the democratic process, resulting in a pluralistic democratic process. By *conflict*, I do not mean the intentional violence that aims to eliminate other workshop actors as enemies (Mouffe, 1999b). In contrast, in the "agonistic space" (Mouffe, 2000 & 2005) emerging from ambiguity, conflicts are seen as the result of freedom of expression of the diverse individuals and social groups assembled in the workshop. In other words, conflict is a consequence (output) that needs to be addressed rather than an intention (input). In line with Chantal Mouffe's view on agonism, the workshop actors' engagement with conflicts is accompanied by respect for other meanings and for the existence of the other (ibid.).

Many participatory design approaches are typically averse to conflict because it makes things even more complex and demands additional time and energy. Instead, they focus on finding a common ground between the different workshop actors. Nevertheless, there has been a recent interest in agonism when assembling a diversity of publics in participatory design practices, e.g. Björgvinsson et al., 2010; Di Salvo, 2012; Hernberg & Mazé, 2018; Kraff, 2020. However, up until now agonism has not been explored in the context of participatory design with children. In general, participatory design practices with children are expected to be a *nice* experience for everybody, hence avoiding conflict. Such practices are designed and facilitated for producing fun experiences, smooth processes, agreement, harmonious group dynamics (Van Mechelen et al., 2015), etc. These normalised expectations are amplified by the way their public communication and reports picture happy children with an aesthetic layer of cuteness. Whereas cuteness can be seen as a way of aestheticising powerlessness (Jasper & Ngai, 2011; Ngai, 2012), conflict-less participatory design practices give a distorted, idealistic view of child–adult collaborations and their power relationships. In contrast, my study points to the importance of facilitating participatory design practices with children as an "agonistic space" (Mouffe, 2000 & 2005); especially when the actors involved aim to actualise a pluralistic democratic process.

In addition to highlighting the need to address *conflicting meanings* in participatory design practices with children, my study also points to the presence of *conflicting languages*. Whereas adults mostly use the spoken word in an advanced way, children tend to use a (mixed) variety of bodily movements, drawing, sculpting, singing, dancing, walking, and other forms of doing and making. When aiming to actualise a democratic process, it is important to address and respect children's alternative and multiple languages. In line with Loris Malaguzzi's ideas about children's "hundred languages" (Malaguzzi, 1970 from Cagliari et al., 2016), the adult designer/facilitator should deal with children's multiple languages as *serious* means of communication instead of ignoring them. In general, many participatory design practices with children only engage with formal languages (spoken or written words) or design languages (drawing, prototyping, mapping, etc). However, these formal languages and design languages will mostly induce normative child–adult relationships, thus preventing the actualisation of a democratic process. My findings also showed that involving children's alternative and multiple languages can strengthen their feeling of comfort and security that, in turn, helps to encourage them to deal with the challenges of ambiguity, like uncertainty.

Ambiguity Needs Careful Engagement

My findings have shown that ambiguity can also result in actions that counteract just practice. Ambiguity can open up meanings that hinder safe and ethical practice or meanings that do not contribute to the workshop question or that result in an undemocratic outcome. This means that the workshop actors need to be careful about working with ambiguity. My study pointed out a couple of responsibilities the 'workshop actors' need to fulfil. I stress the term *workshop actors* here because both the designer/facilitator and the child participants need to fulfil their responsibilities. Indeed, when both the designer/facilitator and the child participants are equally involved in the decision-making about the process actualisation, they also both need to take responsibility for it. This means that the workshop actors need to *share* responsibility fulfilment.

Sharing responsibility is quite different from how other participatory design approaches typically work with children. In those traditional approaches it is most often the adult designer only who takes responsibility for the process actualisation and its outcome—because s/he is the

only person to decide about the process actualisation and therefore also the outcome. However, allowing children to take a position of responsibility is not yet a mainstream practice. Many scholars still perceive children as incompetent in taking social and moral responsibility (Archard, 1993). They see children as innocent and in need of protection by adults. This view of incompetence for taking responsibility is often (mis)used as an argument for permitting adults who are close to children—like parents, carers, teachers, designers, etc.—to make decisions for children in *their* best interest. Depriving children of their responsibilities is embedded in Western cultural norms. In many other cultures, children are considered as able to practise their responsibilities sometimes even from a very young age.

From the *Public Play* workshops, I did not only learn that children are able to take such responsibilities. I also understood that they liked being responsible because that way they understood that they were equally valued. I also learned that when the child participants understood they were responsible for their actions, it activated their engagement to participate and to ensure a qualitative process and outcome.

Ambiguity Requires Time

My findings have also shown that actualising a democratic process through ambiguity requires time. Firstly, ambiguity encourages the workshop actors to explore new possibilities of how the workshop process can be actualised. Such explorations include wandering and wondering, leaving the beaten track, discovering alternative paths, getting lost, fixing dead-ends. In other words, it is an exploration that requires longer periods of time. Secondly, ambiguity interrupts taken-for-granted meanings and conventional behaviour; it can disrupt habits and requires time for reflection and reconsideration before making decisions. It is a time of non-action, a break, an interval in which the mind is occupied with reflection. Thirdly, appropriating ambiguity leads to negotiating a diversity of (competing) meanings which may be complex and demand a lot of time. Fourthly, actualising a democratic process does not happen as a once off activation but requires continuous engagement; it is a process-orientated engagement. Again, time!

Thus actualising a participatory design practice with children as a democratic process through ambiguity needs much more time compared

with conventional participatory design practices that organise short-term and time-efficient collaborations that prevent or reduce ambiguity in an immediate way. Thus actualising a democratic process through ambiguity is not only about leaving the beaten track but also about leaving limited and time-efficient schedules.

5.4
New Designer and Child Participant Roles

Throughout this chapter, I have pointed out the various roles the designer takes in the process of actualising a democratic process through ambiguity. These roles differ from the roles a designer typically plays in an ordinary participatory design approach. Before I move on to the next chapter—where I will present a framework that can help designers carry out these new roles—I want to give a short outline of these new designer roles. Furthermore, taking on these new designer roles includes designers' need to develop a certain mindset and attitude, master certain skills (e.g. improvisation, building trust, etc.), and to learn how to create a good working environment that allows the workshop actors to make use of the complexity and challenges of ambiguity like uncertainty. Finally, given the active involvement of the child participants in the actualisation of a democratic process, I will also point to a new child participant role.

New Designer Roles

The designer's new roles result from her/his supportive role in the realisation of the three main criteria required for actualising a democratic process: awakening ambiguity, directing the negotiation, and supporting the fulfilment of responsibility.

Awakening Ambiguity—The designer/facilitator plays a role in helping the workshop actors to experience an ambiguous workshop structure consciously. S/he can do this by introducing openness into specific components of the workshop structure when s/he designs and facilitates the workshop structure. In addition, the facilitator plays an important role in making ambiguity *workable*. S/he can do this by regulating openness in the components of the workshop structure and creating a semi-open balance. Furthermore, depending on which components

of the workshop structure s/he opens up, s/he can influence the "form of ambiguity" (Gaver et al., 2003) that will be experienced and thereby control the effect of ambiguity in the process actualisation (i.e. the effects that bring changes in content, roles, and/or agendas).

Directing the Negotiation Process—The facilitator plays an important role in helping the workshop actors to negotiate the diversity of meanings/possibilities through their equal involvement. S/he can do this by directing their negotiation process towards one of the three beneficial forms of negotiating. In addition, the facilitator can help the workshop actors to actualise a pluralistic democratic process through the way s/he directs the negotiation.

Supporting the Fulfilment of Responsibility—The facilitator plays an additional role in supporting the workshop actors in fulfilling their responsibilities. S/he can do this by helping them to keep these responsibility meanings closed—i.e., s/he can advise the workshop actors when they suggest, negotiate, or actualise new meanings in relation to their responsibilities; s/he can explain the importance of these meanings staying closed; and she can eliminate certain responsibility meanings in the worst case scenario. In addition, the facilitator should make sure that the workshop actors share their responsibilities when they are equally involved in the decision-making.

The Importance of the Facilitator

The roles described above indicate the importance of the facilitator in the actualisation of a democratic process through ambiguity. This also points to yet another difference from Gaver et al.'s approach to ambiguity, since they conceive the designer's main role as awakening ambiguity before the user meets and interacts with the designed artefact/system.

In the light of actualising a democratic process through ambiguity, the facilitator plays an important role but also a difficult role.

Firstly, when directing the negotiation process, the facilitator needs to take a neutral stance towards her/his personal agenda when s/he directs this negotiation. In other words, s/he needs to prioritise her/his democratic ambition when directing the negotiation. At the same time, the facilitator must make her/his personal workshop structure meanings explicit and include them in the negotiation of the diversity of workshop structure meanings. Thus the facilitator plays a

dual role in the negotiation; in one role s/he expresses her/his personal workshop structure meanings and works on making them part of the process actualisation. In the other role, her/his meta-role, s/he directs the negotiation and implementation of the actualisation of a democratic process.

Secondly, the facilitator plays a similar dual role in relation to the workshop actors' fulfilment of responsibility. On one hand, s/he supports the child participants in fulfilling their responsibilities. On the other hand, s/he needs to develop a self-critical perspective on her/his own behaviour and to be honest about her/his own shortcomings.

New Child Participant Role

Because this thesis addresses designers and other practitioners who aim to actualise their practice as a democratic process, I have mainly focused on the new roles of the designer but also described the workshop actors' mutual engagement in actualising a democratic process, leading to a new role for the child participants: the *particip-actor*[48] role. In their *particip-actor* role, the child participants act as "subjects" (Freire, 2000[1968]) and active participants who are aware of and take responsibility for their freedom and agency to actualise a democratic process. In other words, they are free to use their personal meanings (opinions) and possibilities (initiatives) to actualise this process by considering all workshop actors equally (negotiation) whilst respecting their individual meanings/possibilities responsibly (responsibilities).

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I transformed the term *participant* in *particip-actors* based on the way that Augusto Boal created the term "spect-actor". Boal introduced the term "spect-actor" in order to stress the active participation of the theatre *spectators* in his "theatre of the oppressed" (Boal, 2000[1979]) and to distinguish this *active* role from their usual *passive* roles in which they *only* view the theatre play without any active involvement in constructing this play.

5.5
Chapter Summary

In chapter 5, I have responded to my first research question: "Which forms of ambiguity are activated in participatory design practices with children, and which role(s) can they play for actualising those practices into a democratic process?". My research results have shown that ambiguity can be a resource for actualising a democratic process and that the three different "forms of ambiguity" (Gaver et al., 2003) have different effects on the democratic process. More specifically:

- "Ambiguity of information" (ibid.) enables the workshop actors to create a democratic process in which the *content* is based on the workshop actors' equal involvement in deciding how the diversity of meanings regarding the *workshop assignments, materials, and settings* should be actualised, on one hand, and how the workshop actors fulfil their responsibilities, on the other hand.

- "Ambiguity of relationship" (ibid.) enables the workshop actors to create a democratic process in which the *roles* are based on the workshop actors' equal involvement in deciding how the diversity of meanings regarding their *roles* should be actualised, on the one hand, and how they should fulfil their responsibilities, on the other hand.

- "Ambiguity of context" (ibid.) enables the workshop actors to create a democratic process in which the *agendas* are based on the workshop actors' equal involvement in deciding how the diversity of meanings regarding the *workshop goal* should be actualised, on one hand, and how they should fulfil their responsibilities, on the other hand.

My research results have also shown that ambiguity has a particular effect on making the diversity of meanings—representing the diversity of workshop actors—explicit (i.e. consciously experiencing ambiguity). However, ambiguity can also cause uncertainty which has to be eliminated by making ambiguity *workable* in order to use the diversity of meanings in the process actualisation (i.e. appropriating ambiguity). I have also shown that the quality of ambiguity contributes to the *freedom* value of democracy—the workshop actors have the freedom to express their meanings/opinions—but that ambiguity, however, does not directly contribute to the other two democratic values: equality and justice. Nevertheless, I have shown that *equality* can be realised through

the equal involvement of all workshop actors in the forthcoming negotiation in which the workshop actors decide on how the diversity of meanings should be actualised. Furthermore, the *justice* component can be realised through the workshop actors fulfilling certain responsibilities. These responsibilities are met by ensuring safe and ethical behaviour and contributing to the workshop question whilst striving for a democratic outcome. Thus my research has addressed the need to work on three requirements when aiming to actualise a participatory design practice with children as a democratic process: consciously experiencing and appropriating ambiguity, negotiating the forthcoming diversity of meanings equally, and fulfilling certain responsibilities.

In this chapter, I also zoomed in on the particular conditions in which these requirements can be met.

- When it comes to the conscious experience and appropriation of ambiguity, I concluded that the creation of a *semi-open workshop structure* is the best condition for the workshop actors to experience an ambiguous workshop structure that is workable.

- When it comes to negotiating the diversity of meanings, I identified three forms of negotiation that have a positive effect on actualising a democratic process. Each of these forms is different in the way that it actualises the process. In *co-existing meanings*, all meanings can be simultaneously actualised without any hindrance. In *conflicting meanings not requiring a choice*, the diversity of meanings causes conflict but nevertheless the workshop actors manage to actualise the different meanings in the process through e.g. *alternating time* or *group division*. In *conflicting meanings not requiring a choice with equal decision-making*, the diversity of meanings causes conflict and the workshop actors do not manage to actualise the different meanings. However, they need to make a choice amongst all the meanings through the equal involvement of all the workshop actors in this choice-making by *discussion, testing*, and/or *voting*. Whereas the first two forms of negotiation result in a pluralistic democratic process, the last one results in a consensus-based democratic process. Finally, if the negotiation does not ensure the equal involvement of all the workshop actors, the process does not result in a democratic process. In other words, the fourth form of negotiation *conflicting meanings without equal decision-making* does not produce a democratic process.

- Finally, when it comes to the fulfilment of responsibility, I identified four responsibilities—safe behaviour, ethical behaviour, behaviour contributing to the workshop question and behaviour contributing to a democratic outcome—and two main attitudes for dealing with these responsibilities—*ignoring responsibilities* and *shared responsibility fulfilment*. In a situation with *ignoring responsibilities*, the workshop actors ignore one or more of their responsibilities, meaning that the process actualisation does not result in a democratic process. In a situation with *shared responsibility fulfilment*, all the workshop actors are equally involved in the decision-making of the process actualisation whilst managing to fulfil their responsibilities when actualising the diversity of meanings or the chosen meaning. Shared responsibility fulfilment safeguards *just* actions and interactions and has a positive effect on the actualisation of a democratic process.

This chapter also includes a discussion on the meaning of my findings. I elaborated here on the virtue of ambiguity for actualising a pluralistic democratic process. I pointed to the meaning of ambiguity as an activator of the meta-process that works on the actualisation of a pluralistic democratic process. This meta-process engages with agonistic forces and needs careful engagement and time.

Furthermore, my research findings have shown that the designer can play an active role in the actualisation of a democratic process. I identified three new designer roles:

1   Firstly, the designer/facilitator can help the workshop actors to experience an ambiguous workshop structure consciously by introducing openness into it. More specifically,

- When the designer/facilitator introduces openness into the interpretation of the workshop assignment, material, and setting, the workshop actors are more likely to experience "ambiguity of information" (Gaver et al., 2003) in relation to the workshop structure.
- When the designer/facilitator introduces openness into the interpretation of the workshop actors' roles, the workshop actors are more likely to experience "ambiguity of relationship" (ibid.).
- When the designer/facilitator introduces openness into the interpretation of the workshop goal, the workshop actors are more likely to experience "ambiguity of context" (ibid.).

I have also shown that when the workshop actors interpret a semi-open workshop structure—i.e., a balance between openness in interpretation and conventional meanings—the workshop actors can deal with the negative effects of uncertainty better, and thus use the diversity of meanings for actualising the process (i.e. appropriate ambiguity).

2   Secondly, the facilitator can play an important role in directing the negotiation towards a democratic process in general and a pluralistic democratic process in particular.

3   Thirdly, the facilitator can also play a role in supporting the workshop actors in fulfilling their responsibilities.

Finally, I described a new child participants' role: the *participactor* role that foregrounds children as capable and responsible human beings who are critically aware of the unequal child–adult power relationships of which they are part, and who are able to create change in them (Freire, 2000[1968]).

The Ambiguity Approach

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In the present chapter, I will answer my second research question: "How can designers work with ambiguity when aiming to actualise a democratic process in participatory design practices with children?" I will present a strategic framework that aims to help designers (and other practitioners) to work with ambiguity in order to actualise their practice as a democratic process. This strategic framework—I call it the *ambiguity approach*—consists of the designer working on five aspects:

1   Mindset—cultivating an ethically driven democratic mindset (6.1);
2   Ethos—creating an appropriate environment for working with the challenges emerging from ambiguity (6.2);
3   Ambiguity—awakening a conscious experience of ambiguity in relation to the workshop structure and appropriate ambiguity in order to make the diversity of meanings *workable* (6.3);
4   Negotiation—directing the forthcoming negotiation towards the equal involvement of all workshop actors (6.4);
5   Responsibilities—supporting the workshop actors in fulfilling certain responsibilities (6.5).

In this chapter, I will present these five aspects step-by-step and give advice on how designers can work with them. Note that in reality, these five aspects do not occur as a linear process. Whereas the first two aspects require continuous engagement—the designer needs to work on mindset and ethos throughout the workshop—the last three aspects require occasional engagement—the designer will work on ambiguity, negotiation, and responsibilities in each new situation within the workshop. This means that the designer will need to work on various aspects at the same time; some continuously, others occasionally.

Furthermore, the success of the *ambiguity approach* does not depend on the step-by-step implementation of the framework presented here, but relies on how the designer appropriates its basic principles according to the particular situation s/he encounters and its specific context. A successful application of the *ambiguity approach* requires navigating in real-life situations and learning from experience. I will elaborate on the application of the *ambiguity approach* in the last part of this chapter (6.6).

6.1
The Ambiguity Approach Mindset

> The Designer will need to cultivate an ethically driven, democratic mindset throughout the project. S/he also needs to help the other workshop actors (the child participants) to cultivate this mindset.

The *ambiguity approach* presented here aims to unite body and mind. In other words, the *ambiguity approach* is not only about implementing a series of actions as strategic steps—the bodily *doing*—but foremost it is an approach in which actions flow from a certain way of thinking. Working according to the *ambiguity approach* starts with designers developing a mindset which, in turn, enables them to produce an ethically driven democratic design attitude. However, actualising a democratic process requires the involvement of all workshop actors which means that the designers also play a role in helping the other workshop actors to cultivate this mindset.

The *ambiguity approach* mindset is based on democratic values, it is ethically orientated, and embraces openness in general and openness towards diverse cultures in particular. It is important that the designer understands these values and uses them as a driving force throughout her/his ways of practising the *ambiguity approach*. In the following part of the text, I will elaborate on the meaning of these values.

Furthermore, designers should understand that cultivating the *ambiguity approach* mindset is a matter of reconfiguring an existing mindset according to new values. This means that the workshop actors might need to unlearn existing values and relearn new values. Thus the designer needs to acknowledge that changing a normative mindset is a slow and difficult process that needs repetition, persistence, and time. In addition, changing one's own mindset is yet another challenging endeavour.

Freedom, Equality, and Justice

Believing in democratic values—It is obvious that the realisation of a democratic process is preceded by democratic ambition. In a way, most of us take for granted that we know what democracy is and that we act democratically. We consider our belief in democratic values as self-evident but we forget to reflect on the meaning of the various

components of democracy. Moreover, we often neglect to reflect critically on whether our actions and interactions truly put those values into practice. The *ambiguity approach* mindset encourages the development of an in-depth and critical understanding of democratic values as well as being actively engaged in exploring how we can implement these values in our everyday life/work practices. This means that all workshop actors must believe in the importance of democratising their actions and interactions and embedding democratic values in them: freedom, equality, and justice.

- By freedom, I mean the way that all workshop actors should be free to express their personal opinions and be treated with respect.
- Equality includes a wide range of equalities: equality of knowledge, equality of power, equality of means, etc. but foregrounds the importance of the workshop actors' equal involvement when collaborating on their common question/issues/situation. Moreover, all workshop actors should be equally involved in the process actualisation.
- By justice, I mean the workshop actors' responsibility to safeguard social justice and direct their actions and interactions correspondingly.

In practice, I suggest that the facilitator should make space and time to reflect critically on whether and how the workshop actors are practising freedom, equality, and justice in their actions and interactions and how the workshop actors can improve the implementation of those values when actualising the process. The designer/facilitator can develop creative exercises and informal group discussions that help the workshop actors to develop this democratic mindset and attitude. In addition, the facilitator should (learn to) develop a self-critical attitude towards her/his own behaviour with regard to how s/he puts democratic values into practice.

Care

Being ethically orientated—Aiming for free, equal, and just actions and interactions can be framed as care. Actualising a democratic process requires care between the workshop actors. This means that all workshop actors must exhibit a reciprocal commitment to each other's well-being through giving and receiving care; they must care both for themselves

and for each other. Caring also includes the workshop actors sharing responsibility for their shared decision-making.

    In practice, I suggest that the facilitator should make space and time to help the workshop actors to develop this care amongst themselves. The facilitator should help the workshop actors to reflect critically on if and how their actions and interactions fulfil their responsibilities when critical situations occur. S/he can also help them to develop an in-depth, shared, and practical understanding of what their responsibilities include (e.g. what is safe and ethical behaviour, what is the meaning of the workshop question, and what is a democratic outcome?). As with the democratic values, the facilitator should (learn to) develop a critical attitude towards her/his own behaviour with regard to how s/he practises care.

Openness

Embracing openness—Obviously, we need an open mind. The *ambiguity approach* mindset implies being open to novelty and the unknown, and being open to exploration and change. The mindset understands the world as being in a constant state of flux and people as having agency in all change. This means that the workshop actors need to cultivate a flexible mindset that can adjust to novel and unexpected situations. Furthermore, making mistakes is part of the learning process. Mistakes are seen as temporary situations that people can change.

    In practice, I suggest that the facilitator should make space and time for improvisation. Improvisation is key when developing a flexible mindset that is open to novelty whilst underpinning the workshop actors' agency in change. The designer/facilitator can also encourage the workshop actors' free play. S/he can organise specific exercises in which the workshop actors can learn to let go of predefined plans and instead let their actions and interactions emerge from the particularity of the situation they are in. In addition, the facilitator should experiment with and learn not to be boxed in by predefined plans, and her-/himself become open for new initiatives.

    In addition, the *ambiguity approach* mindset has a particular interest in openness towards diverse cultures.

Diversity, Conflict, and Risk-Taking

Openness towards different cultures—The *ambiguity approach* mindset includes openness to other cultures and encourages the workshop actors to engage with the particularities of those cultures whilst understanding the potentials of such cultural differences. By the term *culture*, I mean the patterns of beliefs, attitudes, and behaviours shared by a particular group; in this case between children and adults who have been socially constructed as two distinct social groups. This mindset includes being open to dealing with diversity, conflict, and risk-taking.

- By diversity, I mean a healthy curiosity for exploring other cultures and their differences. Actualising democratic interactions between the workshop actors requires a deep exploration of who these workshop actors are and an understanding of their particular (different) ways of working on the workshop question. Thus the mindset stimulates the workshop actors to explore less obvious and less shallow parts of each other whilst acknowledging that one cannot fully understand the other. The curiosity should be mutual, meaning that both the designer/facilitator and the child participants should explore each other's cultures and keep those alternative views in mind when interacting.

- Conflict. When the workshop actors discover (different) ways of working on the workshop question, they may experience conflict in their interaction. The *ambiguity approach* mindset does not ignore or reduce those conflicts but acknowledges them as important resources that bring differences to the surface. Such conflicts can help the workshop actors to develop awareness of their different ways of collaborating that enables the actualisation of a diversity-based democratic process. Thus the *ambiguity approach* mindset highlights the need to address conflicts as a constructive means for considering and respecting differences (i.e. agonism; Mouffe, 2000) rather than approaching conflict as a violent initiative (i.e. antagonism).

- Finally, risk-taking. Exploring other cultures requires the courage to undertake risky engagements with others and the unknown. The *ambiguity approach* mindset does not avoid the unknown but sees the unknown as an enabler for new interactions and relationships. Exploring the unknown will help to develop a better understanding of other persons (and their values, interests, and backgrounds)

but it is truly challenging and frightening; there is fear of the unknown, fear of its possible effects, fear of losing control. Fear and anxiety are the main obstacles preventing the exploration of others and their cultures. Therefore, the *ambiguity approach* strives to overcome fear and anxiety but embrace risk-taking: the risk of being surprised, the risk of losing oneself, the risk of growing, the risk of misunderstanding or being misunderstood. I have a *careful* risk-taking in mind here, in which taking risks goes together with care and responsibility. In addition, careful and responsible risk-taking goes together with being open to failure. Failure is part of risk-taking. As I have mentioned earlier, mistakes and failure are seen as temporary situations that can be changed with improvisation being one means of *repairing* such failures.

In practice, I suggest that the facilitator should make space and time to help the workshop actors to develop a better understanding of these differences. The designer/facilitator can develop specific exercises that make those differences explicit, exercises in which the workshop actors develop empathy or experience those differences, and exercises in which they may develop a better understanding of the different contexts.

6.2
The Ambiguity Approach Ethos

The designer will need to create and maintain an appropriate (work) environment throughout the project in order to deal with the difficulties emerging from ambiguity.

In chapter 5, I pointed out various aspects that can challenge or disrupt the constructive effects of ambiguity. I referred to aspects of uncertainty that can create an adverse reaction towards conflicts and the unknown. However, I also showed that designers can influence such negative effects. In this section, I will explain how designers can deal constructively with uncertainty, conflict, and the unknown, hence creating a specific environment for working with the challenges emerging from ambiguity.

The Wonders of Trust and the Freedom to Fail

The workshop actors having a feeling of trust is a key aspect when working with ambiguity. In order to face uncertainty, conflicts, and the unknown, the workshop actors should have trust in themselves and in each other.

Firstly, the workshop actors need to trust each other. This confidence builds on social bonding. This means that, besides their mutual differences, the workshop actors also need to build a common ground that enables them to engage with uncertainty, conflicts, and the unknown. In the *Public Play* workshops, I worked on such bonding by starting off with some playful team-building exercises. These exercises had no other purpose than getting to know each other and becoming connected. In addition to those planned bonding exercises, the informal time slots (e.g. waiting time, lunchtime, and other breaks) helped the workshop actors to develop this bonding in their own way. Furthermore, developing trust in each other means that the designer creates explicit space and (enough) time for building relationships of trust. The designer should also acknowledge that building relationships of trust between peers (e.g. amongst the child participants) usually happens more easily than between non-peers (e.g. between the child participants and the facilitator). The facilitator can help to produce a looser and closer relationship between her-/himself and the child participants through her/his attitude.

Secondly, the workshop actors need to trust themselves. They can work on their self-confidence by valuing and nurturing their inner world: their personal backgrounds, values, and interests. From the *Public Play* project, I have identified two ways of nurturing self-confidence: engaging in/with art and building (on) experience-based knowledge. When it comes to art environments (e.g. conducting the workshop in an art museum) and art making (e.g. making a sculpture as part of the workshop), this can enable the workshop actors to express their personal im-/expressions about certain issues. Here, thinking outside the box is accepted and enhanced. Art making provides both a language and a means for expressing their personal ideas (what) in a personal way (how). Therefore, art—both art environments and art making—can amplify the workshop actors' self-confidence and their belief in actualising their personal ideas. When it comes to experience-based knowledge, I have learnt that when the workshop actors can build on their personal knowledge—i.e., the knowledge they have generated from learning from

their personal experiences—it can help them to develop self-confidence about the meaning and value of their contribution.

An appropriate (working) environment also consists of acknowledging the freedom to fail. Exploring new cultures and discovering new paths for collaboration go together with making mistakes. When the workshop actors accept that failure is a *normal* part of a practice, this can generate a feeling of trust that can, in turn, encourage them to engage with uncertainty, conflicts, and the unknown. From the *Public Play* project, I have learnt that play and its 'as if' state can help the child participants to accept *mistakes* more easily. Play opens a fictional universe that allows people to test, experiment, and try out new ideas beyond reality; it allows them to make *mistakes* and learn from these *mistakes*. However, introducing this play context does not mean that the project itself is fiction. It is important to make a distinction between 'play as a method' in a workshop aiming at developing *real* change as in the case of the *Public Play* workshops, and 'play as a workshop goal' with the workshop aiming to create play activities as an outcome. By developing *real change*, I mean making changes in the real world and not in the 'as if' imaginary world. Furthermore, using 'play as a method' is not an excuse for the workshop actors to ignore their responsibilities.

It Is a Matter of Time

I have already pointed out the various reasons why working with ambiguity requires time and actualising a participatory design practice as a democratic outcome needs time (see: Ambiguity Requires Time, in 5.3). Thus, when aiming to actualise a democratic process through ambiguity, the designer should plan for enough time. In practice, the designer can organise her/his practice (e.g. a workshop) over long time spans. I refer here to both the total duration of all sessions in a workshop and the duration of each workshop session. As I have shown in the previous chapter, it is mostly not only up to the designer (alone) to make decisions about the workshop duration (see: surrounding components, in 5.2).

Firstly, the decision can depend on (some of) the partners involved, e.g. when the workshop is organised as part of a partner's existing programme. For instance, the *Playful Monstration* workshop was organised as part of Wiels's Kids Holiday workshops and limited to five consecutive days from nine a.m. to four p.m. In the *Recipes for unControl* workshop,

as designer-researcher, I invited a group of students from ISGR to participate in the workshop. They accepted but I had to negotiate time with the school staff (the duration, amount, and timing of the workshop sessions) and find possibilities that matched the school curriculum and their everyday organisation. In some cases, these partners are well-established institutions with fixed values that rely on stable and fixed organisational structures (e.g. schools). They most often work with fixed schedules and long-term planning, like annual or term planning, that are hard to change even when it comes to minor adjustments[49]. This implies that the designer needs to be diplomatic when strategically negotiating time with all partners involved. In the *Playful Rules* workshop, I launched a call myself. This meant that I could decide about the workshop time myself, but when I discussed my schedule with the parents, it became clear that my time plans did not always match their various individual family schedules.

Secondly, the duration of an individual workshop session also depends on how long the specific group of child participants has energy and concentration, and at what time of the day they have the most energy and concentration. Thus designers need to keep in mind that their 'expanded time' agenda may be hard to implement and should be realistic in relation to the specific conditions they are working in.

Thirdly, the way our culture relates to time is another factor that influences the way we organise the duration of workshops. A normative Western way of thinking about time mostly places time in an economic context: time is money and time needs to be *spent* efficiently. Many practices working on children's participation in society depend on financial funding; they fall under a *time-is-money* regime that does not support long-term investments which means that there is no time for off-road explorations but only clarity ... This type of context challenges facilitators who want to actualise their practice as a democratic process through ambiguity. Again, designers need to keep in mind that the *ambiguity approach* is quite radical in this context and does not only need a shift in the designer's mind but changes in the larger context in which we live—yet another big question.

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In addition, for such institutions, it is often not only a matter of time but also content. I refer here to the lack of space (content space) in which these practice-based initiatives working on children's participation can be organised. In many cases, these initiatives are organised in after-school hours or replace courses that are perceived as less fundamental, like e.g. art classes.

Finally, actualising a democratic process is not a quick-fix that produces instant change. In contrast, it will gradually grow over time and through continuous engagement. Thus it is important for the designer to know and anticipate this, i.e. allow sufficient time and energy for continuous engagement. In addition, it is also important for the partners and the workshop actors to know that extra time is needed for actualising a democratic process through ambiguity. The designer/facilitator must, therefore, inform the partners and the workshop actors that making a change needs time and requires patience and continuous engagement.

Accommodating Diversity

Ambiguity is present when a plurality of meanings is consciously experienced simultaneously. As a result, assembling a diversity of workshop actors who are free to express their personal backgrounds, values, and interests can have a positive effect on the conscious experience of ambiguity (see: surrounding components: participants' internal relationships, in 5.3). However, in many cases, the decision about who will take part in the workshop is not up to the designer only. Depending on the organisational set-up of the workshop and the partners, the designer may have more or less to say about who participates in a workshop. Despite this, I suggest that the designer strives to assemble a group of workshop participants that has few or no pre-existing relationships and that represents diversity through differences in e.g. age, gender, origin, class, religion. In case the designer recruits the workshop participants her-/himself, I suggest distributing the workshop call in a diversity of organisations. Furthermore, when the designer engages a group in which the workshop participants have few or no pre-existing relationships, s/he will need to work on developing relationships of trust.

6.3
Awakening Ambiguity

The designer will need to create a semi-open workshop structure in order to make ambiguity 'visible' (i.e. consciously experiencing ambiguity) and 'workable' (i.e. appropriating ambiguity).

In chapter 5, I have shown that the workshop actors consciously *experienced* ambiguity when interpreting a balanced level of openness in the workshop structure. I also showed that a semi-open workshop structure enables the workshop actors to *use* ambiguity—i.e., use the diversity of meanings in the process actualisation. By *a semi-open workshop structure*, I mean a workshop structure in which some components can be interpreted in different ways whilst other component meanings are closed in order to eliminate uncertainty and make ambiguity workable. This semi-open workshop structure forms a good basis for generating different meanings and possibilities and supports the actualisation of a diversity-rich workshop process.

There are three kinds of components that define the level of openness of a workshop structure: the components of the workshop structure, the surrounding components, and the responsibility components. The way in which the designer works with these different interacting components can be compared with the way in which a sound technician works with a mixing desk choosing the type, level, and interrelations of multiple input signals to orchestrate a combined output. I will use a mixing desk as a metaphor for explaining how a designer can regulate openness in the various interacting components when aiming for a semi-open workshop structure.

I will start by describing the layout of the ambiguity mixing desk before elaborating on both its basic and advanced working principles.

Layout of the Ambiguity Mixing Desk

The ambiguity mixing desk (figure 6.1) consists of three different boards corresponding to the three component categories: components of the workshop structure, surrounding components, and responsibility components.

Figure 6.1
Illustration presenting the layout of the
ambiguity mixing desk.

Responsibility Components
Keep these components permanently closed

Workshop Question	Safe Behaviour	Ethical Behaviour	Democratic Outcome
Open	Open	Open	Open
Closed	Closed	Closed	Closed

The workshop structure components board contains the components that are controllable by the designer/facilitator—The first board contains the six components of the workshop structure: assignments, materials, settings, child participant roles, facilitator roles, and goals. Because the designer can control the level of openness through her/his way of designing and facilitating these components, these components play a protagonist role in creating a semi-open workshop structure. Thus this board contains the *controllable* components. The *pencil* symbol marking this board represents the designer's active role in controlling the level of openness in the various components of the workshop structure.

The surrounding components board contains the components that need to be considered by the designer/facilitator—The second board contains the four components surrounding the workshop structure: time, participant group, participants' ambiguity (in)tolerance, and context. These components can vary in openness depending on external factors. Most often the designer has little control over these components but needs to take their effect into account when creating the semi-open workshop structure. Thus this board contains the surrounding components the designer needs to *consider*. The *eye* symbol marking this board represents the designer's task of continuously "keeping an eye" on the overall effect of these surrounding components when creating the semi-open workshop structure.

The responsibility components board contains the components that need to stay in a fixed closed position—The third board contains the four responsibilities the workshop actors need to fulfil: safe behaviour, ethical behaviour, democratic outcome, and the workshop question. The meanings of these responsibilities should not be opened up since they preserve just actions and interactions. Thus this board contains the responsibility components that should stay in a fixed closed position. The *lock* symbol marking this board represents the designer's task of locking these responsibility components in a fixed closed position.

The Basic Working Principles

In order to create a semi-open workshop structure, the designer will need to consider the three component-categories of the mixing desk according to three subsequent phases: preparation, introducing openness, and regulating openness (figure 6.2).

First phase: preparation—In the first phase, the designer develops an understanding of the possible effects of the given surrounding components that affect the interpretation of the workshop structure. S/he will estimate whether these components will produce an open or closed interpretation space. Although the designer mainly does this before s/he designs the workshop structure (before the process starts), s/he will need to update her/his understanding continuously throughout the process of designing and facilitating the workshop structure, concerning their possible influences. The designer can develop this understanding by first looking at the individual surrounding components (time, participant group, participant's ambiguity (in)tolerance, and context) and subsequently evaluating their overall effect—i.e., estimating whether they tend to produce an open or closed interpretation space. If the designer/facilitator suspects that the surrounding components will generate a closed interpretation space, s/he will need to create more openness in (some of) the components of the workshop structure (s/he can do this in the second phase: introducing openness). If the designer/facilitator estimates an open interpretation space, s/he will need to create less openness in the components of the workshop structure (again, in the second phase).

Second phase: introducing openness—Once the designer has developed an idea about whether the surrounding components tend to produce an open or closed interpretation space, s/he can start designing the semi-open workshop structure. S/he can do this by creating openness in some of the components of the workshop structure whilst keeping other components of the workshop structure closed in accordance with the estimated impact of the surrounding components. The designer designs a certain level of openness in the hope that the workshop actors will experience the workshop structure as semi-open, and thus interpret the workshop structure according to several meanings and consciously experience ambiguity. In addition, whilst the designer creates openness in the workshop structure, it is important that s/he makes sure that the openness does not interfere with the workshop actors' responsibilities. In other words, the designer has to make sure s/he does not introduce openness into the responsibility components. Furthermore, when the designer introduces openness into the interpretation of the workshop structure, s/he needs to create an appropriate working environment by accommodating trust, failure, time, and diversity (see: Ambiguity Approach Ethos, in 6.2).

Timeline   Workshop Preparation

The designer and the partner(s)
define the workshop frame together
    or
The designer develops under-
standing about the workshop frame
defined by the partner(s).

The designer designs the workshop
structure

Components   Surrounding Components

Workshop Structure Components

Responsibility Components

**Creating a Semi-Open
Workshop Structure**

1st Phase: Preparation

2nd Phase: Introducing Openness

The designer estimates the overall
effect of the surrounding compo-
nents (i.e. open or closed interpreta-
tion space)

The designer estimates the overall
effect of the surrounding compo-
nents (i.e. open or closed interpreta-
tion space)
    and
The designer introduces openness
into the components of workshop
structure
    and
The designer ensures that the
introduction of openness does not
interfere with the responsibility
components

**Actualising a Democratic
Process**

Experiencing Ambiguity

The workshop actors experience
a diversity of meanings in relation
to the workshop structure
    and
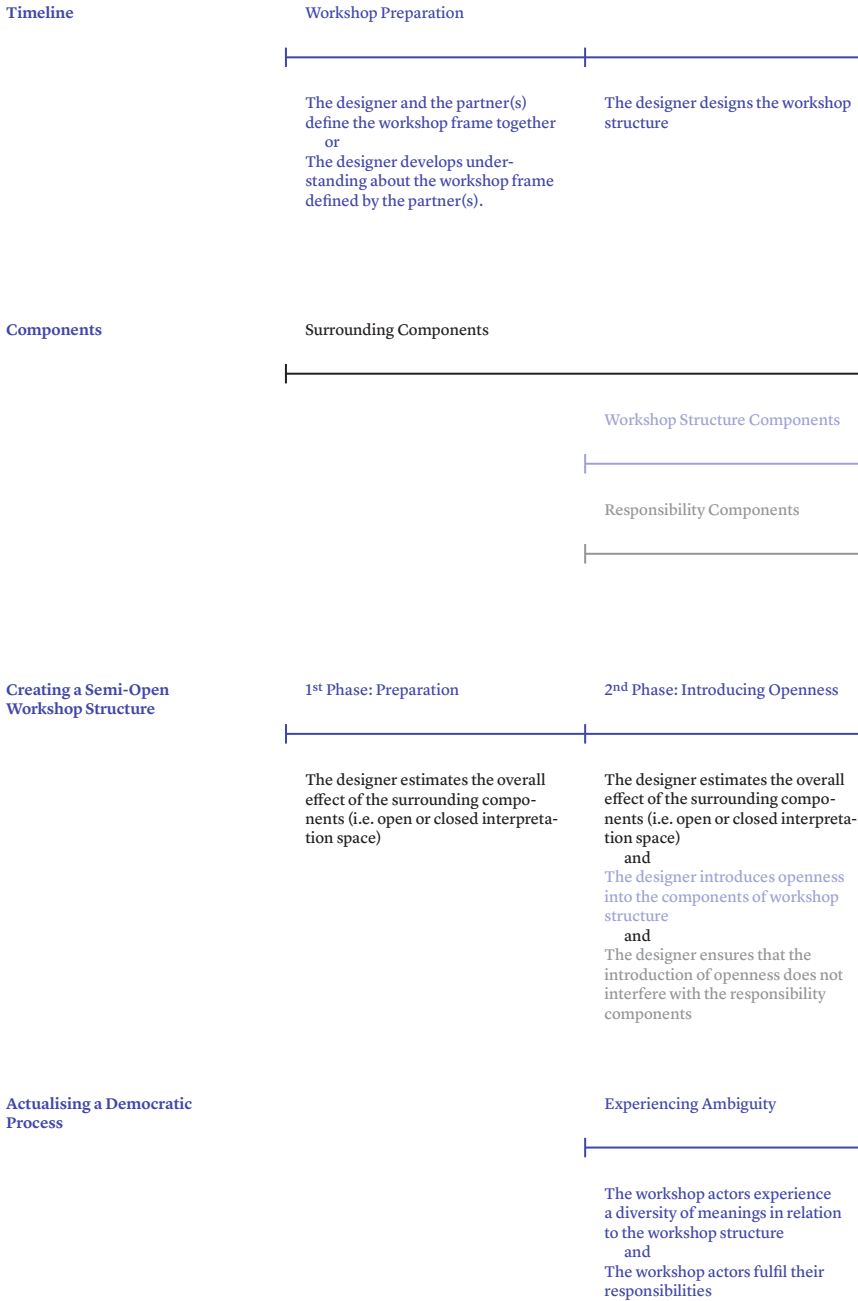The workshop actors fulfil their
responsibilities

Figure 6.2
Diagram presenting the procedure
of creating a semi-open workshop structure
by working with the three categories
of components according to three conse-
quent time phases.

Workshop Process Actualisation

The child participants and the facilitator put the workshop structure into practice
    and
The designer works on awakening and appropriating ambiguity, directing the negotiation, and responsibility fulfilment

3ʳᵈ Phase: Regulating Openness

The designer estimates the overall effect of the surrounding components (i.e. open or closed interpretation space)
    and
The facilitator regulates openness in the components of workshop structure
    and
The facilitator ensures that the introduction of openness does not interfere with the responsibility components

Appropriating Ambiguity

The workshop actors use the diversity of meanings in the actualisation of the process
    and
The workshop actors fulfil their responsibilities

Negotiating a Diversity of Meanings

The workshop actors decide about the actualisation of one/more/all meanings in the process
    and
The workshop actors fulfil their responsibilities

Third phase: regulating openness—In the third phase, the facilitator will observe whether the workshop actors actually experience the workshop structure as ambiguous. There are two possible scenarios: the workshop actors experience an ambiguous workshop structure or they do not. In the first scenario, when the workshop actors experience an ambiguous workshop structure, the facilitator has succeeded in awakening the conscious experience of an ambiguous workshop structure. The second scenario, when the workshop actors do not experience an ambiguous workshop structure, demands additional work. There are many reasons why the workshop actors might not experience an ambiguous workshop structure. Most probably, the reason is that the surrounding components have a different effect compared with the designer's estimation and therefore the designer has opened too many, too few, or the *wrong* components of the workshop structure. If the workshop actors do not experience an ambiguous workshop structure, the designer will need to regulate the level of openness in the workshop structure even more. S/he can do this by updating her/his understanding of the effects of the surrounding components and correspondingly open or close some (other) components of the workshop structure. In this last phase, the facilitator is primarily occupied with finding the right balance between open and closed. It is a question of being able to work with many interacting components. Also in this third phase, the designer needs to continue securing the meaning of the responsibility components being kept closed. Furthermore, the designer needs to maintain the appropriate working environment for dealing with the challenges of ambiguity.

Additional Advice

How to Work With the Surrounding Components

When working on the semi-open workshop structure, the designer/facilitator should take the effect of the surrounding components into account. In some cases, the designer can decide upon (some of) the surrounding components but in many cases, the designer can do no more than estimate their overall effect and work on the semi-open workshop structure in correspondence with this effect.

Estimating the Effects of the Surrounding Components

The designer/facilitator will need to estimate the effects of the surrounding components before designing the workshop structure and continuously update this understanding when s/he designs and facilitates the workshop structure. The surrounding components can create an open or closed interpretation space. An open interpretation space has a positive effect on the workshop actors' interpretation of the workshop structure in diverse ways (and in different ways from those planned by the designer). If the surrounding components produce a closed interpretation space, the workshop actors will most probably interpret the workshop structure in a conventional way. This means that the designer/facilitator will need to introduce more openness into the components of the workshop structure.

Returning to the ambiguity mixing desk: if most/all of the components of the surrounding components board report an open position, the surrounding components are producing an open interpretation space meaning that the surrounding components are providing a good environment for experiencing a diversity of meanings but possibly also for experiencing uncertainty. If most/all of the components report a closed position, there is a closed interpretation space meaning that the surrounding components are providing a good environment for experiencing single and conventional meanings which are not productive for actualising a democratic process.

Estimation Guidelines

The following guidelines can help designers to *estimate* whether the individual surrounding components of their workshop session are open or closed. I emphasis the word *estimate* here because the actual openness or closedness of these components will only become clear when the workshop actors are interpreting the workshop structure. Furthermore, these guidelines should be used whilst considering the following three limitations: firstly, the guidelines are based on my limited empirical material, meaning that other projects may point out different surrounding components; secondly, these guidelines are not absolute. The guidelines can, occasionally, produce other and maybe even opposing effects. For instance, when organising a workshop in partnership with a school, my guidelines suggest that a traditional school context most often leads to a closed interpretation space. However, when the particular school proclaims and practises alternative (democratic) values, the

school component may have, in this particular case, a positive effect on producing an open interpretation space. This means that the guidelines should be checked in the real situation; thirdly, the guidelines should be used for looking at the individual components. However, when determining whether the surrounding components will produce an open or closed interpretation space, the designer/facilitator will need to look at the overall picture of all the individual surrounding components and the way they influence each other. Finally, the guidelines:

Time—From my experience, a workshop that runs over a longer time span contributes to opening up the interpretation space whereas a short-term workshop often tends to close the interpretation space. I refer here to the time span of the overall workshop and its individual sessions.

Participant group—From my experience, a heterogeneous participant group (a group without pre-existing internal relationships but with a diversity in age and background) helps to open up the interpretation space whereas a homogenous participant group (a group with pre-existing internal relationships and/or similarities in age and background) often tends to close the interpretation space.

Participants' ambiguity (in)tolerance—This component is less easy to read because it takes time to understand an individual's personal attitude towards ambiguity. Thus the designer can most probably not estimate this component at the very start of the workshop but s/he may develop a better understanding as the workshop evolves and the child participants are exposed to experiencing ambiguity.

Context—From my experience, alternative and/or emerging places and partners (e.g. art institutions, public spaces in transition) help to open up the interpretation space whereas traditional and/or established places and partners often tend to close the interpretation space (e.g. a traditional school, a KFC playground⁵⁰).

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A KFC playground is a term coined by Helen Woolley for naming a stereotypical municipality playground that mostly consist of a Kit, Fence and Carpet. By this term, Woolley means their typical set-up: "a Kit of equipment, the Fence to keep the dogs out—or the children in—and the Carpet of expensive rubber surfacing" (Woolley, 2007, p.7).

Surrounding Components	Opening Effect	Closing Effect
Time	Long time span	Short time span
Participant group	Heterogeneous	Homogenous
Participants' internal relationships	New internal relationships (new group)	Existing internal relationships (existing groups)
Participants' age and maturity	Diversity in age	Similar age
Participants' backgrounds	Diversity in background	Similar background
Participants' ambiguity (in)tolerance	Ambiguity tolerant	Ambiguity intolerant
Context	Emerging/experimental places and partners	Existing/established places and partners

Table 6.1
Overview of the effects of the surrounding
components' different effects on creating an
open or closed interpretation space.

Directing the Surrounding Components

In chapter 5, I mentioned that in most cases the designer/facilitator has little control over the surrounding components. In some cases, the designer can influence these components. It depends on whether and to what level the designer is involved in the preparatory phase in which the partners decide about the basic set-up of the workshop (e.g. which (additional) partners should be involved, how the child participant group should be composed, where the workshop will take place, which other workshop actors should be involved, what the workshop budget is, etc.). When the designer is involved in deciding this basic set-up, I suggest organising a workshop that contains a good balance between long time spans (both the overall workshop session and individual workshop sessions); a diverse participant group (no pre-existing internal relationships but diversity in age and background), and working in/with emerging and experimental places/partners. In the case of the *Public Play* project, I initiated most of the workshop which gave me much power in controlling the surrounding components. However, my control was challenged depending on which and how many partners I worked with. For instance, working with a school meant that the participant group and/or time frame were fixed which reduced my control.

How to Open the Components of the Workshop Structure

In general, ambiguity is experienced when a conventional interpretation is challenged. The designer can challenge conventional interpretation by confronting the interpreter with novel, contradictory, or abundant information (Budner, 1962).

Returning to the ambiguity mixing desk, the designer works at the workshop structure components board and opens up one or more components of the workshop structure.

Opening up the Interpretation of an Assignment

Building further on my experience in the *Public Play* workshops, I suggest the following ways in which the designer/facilitator can open up the interpretation of an assignment:

A.01—The designer designs and facilitates the assignment in a novel, contradictory, or complex way (Budner, 1962). This intervention

can disrupt single, conventional interpretations and engage the child participants in playing an active and conscious role in the interpretation. Making sense of the novel, contradictory, or complex (ibid.) designed/facilitated assignment also appeals to their personal values, interests, and backgrounds. For instance, the 'body scan' assignment in the *Recipes for unControl* workshop is an example of a new assignment (see #4 *Body Scans*). The 'role-playing dialogue' assignment is another example of a new assignment (see #8 *The Chair Dance*). The assignment 'transform the video-camera into an artistic sculpture' (see #1 *The Birth of Mister Wiels*) is an example of a complex assignment.

A.02—The facilitator encourages and includes the child participants' assignment initiatives. Their initiatives should contribute to the workshop questions and secure safe and ethical behaviour, just as the assignments initiated by the designer should. For instance, in the *Playful Rules* workshop, the child participants suggested visiting and exploring their favourite places in the park instead of describing them. Such child-participant-driven assignment initiatives are also relevant for opening up the interpretation of materials and settings.

A.03—The facilitator encourages the workshop actors to involve a coincidence in the interpretation of an assignment. By a coincidence, I mean unforeseen, unexpected, and accidental events, materials, settings, actors, and goals (e.g. rain or an encounter with a local). Because such coincidences are usually seen as unimportant, they are typically filtered out from the interpretation process. However, the *ambiguity approach* sees them as a bonus because they can shed new light on how the workshop actors interpret an assignment, a material or a setting. As with the child participants' initiatives, such assignment reconfiguration should contribute to the workshop question and secure safe and ethical behaviour. As an example, in the *Dialogue Shapers* workshop, the policymaker cycled to the workshop on his folding bike. The child participants were interested in the bike's folding mechanism which introduced a spontaneous discussion about cycling in the city, safety, and slow mobility. In the same workshop, some child participants found a dead bird which introduced a spontaneous discussion about animals in the city, traffic, air pollution, and slow mobility.

A.04—"Ambiguity of relationship" (Gaver et al., 2003) has a positive effect on opening up the interpretation of an assignment. For instance, when the facilitator suggests that the child participants play an unconventional role or that s/he her-/himself plays an unconventional

role, it can support the child participants in interpreting the assignment according to these unconventional roles.

A.05—"Ambiguity of context" (ibid.) has a positive effect on opening up the interpretation of an assignment. For instance, when the facilitator situates the assignment in an art context, it can help the child participants to interpret the assignment openly (i.e. the creative freedom of the artist). Examples from working with art contexts are #1 *The Birth of Mister Wiels* and #4 *Body Scans*. In addition, the facilitator can prevent the child participants from interpreting an assignment in a conventional way by suggesting an unconventional context in which the child participants can interpret the assignment. Thus the facilitator can organise a series of small explorative exercises (e.g. philosophical questioning, personal conversations, art making, re-enactments) that prepare the child participants for using and prioritising unconventional contexts when interpreting an assignment.

A.06—Openness in material and setting which enables the child participants to use the material and/or setting in a different way has a positive effect on suggesting new ways of working on an assignment. For instance, in the *Recipes for unControl* workshop, the young participants interpreted the reconfiguration of the classroom set-up ambiguously (openness in setting) which stimulated them also to interpret the assignment openly. In the *Dialogue Shapers* workshop, the child participants interpreted the rope ambiguously (openness in material) which stimulated them also to interpret the assignment openly.

A.07—The designer creates an *assignment-in-the-making* that consists of bits and pieces of what can become an assignment; those bits and pieces should relate to the workshop question (broadly speaking). The facilitator encourages the child participants to develop an assignment themselves from these bits and pieces (possibly supplemented by other bits and pieces introduced by the child participants themselves). This exercise is an alternative for situations in which the child participants do not (yet) dare to propose their own initiatives. For instance, in the *Playful Monstration* workshop, I created the *assignment-banners* as such an *assignment-in-the-making* tool (figure P2-05). In the *Dialogue Shapers* workshop, I provided *assignment-cards* as a variant of the *assignment-banners* in which the child participants were free to choose amongst a wide range of assignments. When choosing to work with this option, I suggest that these *assignment-in-the-making* bits and pieces are continuously present in an accessible location (e.g. the bits and pieces spread

out on a big table in the corner of a room) so the child participants can reach out to the *assignment-in-the-making* tool whenever they want. I also suggest designing these bits and pieces in a visual and tactile way. Furthermore, the facilitator needs to reserve time and space for the child participants' negotiation when developing the assignment. And the self-defined assignment should also contribute to the workshop question and secure safe and ethical behaviour.

Opening up the Interpretation of a Material

Building further on my experience in the *Public Play* workshops, I suggest the following ways in which the designer/facilitator can open up the interpretation of materials. The suggestions A.01 till A.05 made in the previous section are applicable for opening up the interpretation of materials. Additional suggestions build on working with *loose parts materials*, *lost and found materials*, *eclectic-and-abstract tools*, and *(co-)self-created tools*.

M.06 — The designer/facilitator provides *loose parts materials*. *Loose parts materials* build on Simon Nicholson's "loose parts": a set of variables that can be reconstructed in various ways depending on the maker's personal ambition (Nicholson, 1971). They mainly consist of raw materials or abstract shapes and volumes such as clay, chalk, textiles, rope, stones, sticks, sand, water, etc. *Loose parts materials* hold openness due to the way they do not require further explanation about how they can be used and due to their ability to be interpreted and combined in many different ways. Furthermore, *loose parts materials* can be used by a variety of ages ranging from toddlers to seniors. For instance, in the *Public Play* workshops, as a designer/facilitator, I provided a rope, clay, chalk, and textile banners as *loose parts materials*. This encouraged the child participants to use the materials in a variety of ways that they themselves decided (figure 1.2, P1-04, P1-07, P1-08, and P2-03).

M.07 — The designer/facilitator encourages the child participants to work with *lost and found materials*. By *lost and found materials*, I mean materials that are not specifically chosen and provided by the designer/facilitator but found and chosen by the child participants themselves in their immediate (workshop) environment. *Lost and found materials* consist of rubbish and other materials that can be recycled into many new creations. They also include *ready-made* objects such as e.g. a traffic sign, a fallen-off hubcap, a tree, a garment, a shopping cart. Most often, *lost and found materials* are used when specific and/or professional materials are absent. As with *loose parts materials, lost and found materials*

enable the child participants to assemble and cobble different pieces into a new whole in which the child participants can decide themselves. For instance, in the *Public Play* workshops, the child participants used e.g. tiles, fences, a lamp post, different bits of rubbish, a tree for working on assignments (figure P1-03, P1-05, and P2-04).

M.08—The designer/facilitator provides *eclectic-and-abstract tools* materials. By *eclectic-and-abstract tools*, I mean tools that are specifically designed by the designer her-/himself for working on a specific workshop assignment and the workshop question generally. Their eclectic and abstract aesthetics challenge conventional interpretation, hence encourage the child participants to interpret the tool according to how they want to use it when working with an assignment. By *eclectic-and-abstract aesthetics*, I mean an aesthetic language characterised by an eclectic mixture of elements that each refers to another tool/object and whereby the assembly of the different elements transgresses individual and specific meanings in a new unspecified (abstract) whole. This mixture of references enables the child participants to interpret the use of the tool in a new way and to invent purposes based on combined meanings. For instance, in the *Playful Rules* workshop[51], I designed a tool that looked like a combination of an abstract traffic sign and a blackboard upon which they could chalk (figure 1.1 and P2-06). The back of the blackboard had an elastic rope for attaching paper or an object. The tool could be associated to artefacts carried in parades like demonstrations, processions, military parades. Although I had planned to use this for a specific assignment in the workshop, the child participants wanted to use it throughout the process in various different ways. The fact that the tool had no name also enabled them to interpret it in many ways.

M.09—The facilitator encourages the child participants to create *(co-)self-created tools*. By *(co-)self-created tools*, I mean tools that are specifically designed by the workshop actors for a certain assignment. The workshop actors can create these *alone* (self-created tools) or in a *group* (co-created tools; short for collectively created tools). The workshop actors' involvement in individually or collectively creating a tool

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[51]
This workshop is part of the *Public Play* project. It is not part of the empirical material analysis of this thesis but is described in the introductory chapter of the thesis.

can enable them to decide what this tool is for and how it is to be used. For instance, in the *Recipes for unControl* workshop, I asked the young participants to design a printed map (figure P2-07) to be served as a tool for their group discussion about issues of exclusion in public space. In the *Playful Monstration* workshop, the child participants and facilitator designed Mister Wiels as a *co-self-created tool* used by the workshop actors for conducting a variety of assignments and inventing new assignments (figure P2-01).

 M.10 — Openness in assignment and setting enables the child participants to use the assignment and/or setting in a different way and has a positive effect on suggesting new ways of working with the material.

Opening up the Interpretation of a Setting

Building further on my experience in the *Public Play* workshops, I suggest the following ways in which the designer/facilitator can open up the interpretation of a setting. The suggestions A.01 till A.05 made in the first section are applicable to opening up the interpretation of a setting. However, opening up the interpretation of a setting can be rather complex because it depends on the interaction between several factors, i.e. familiarity to a place, diversity of the participant group, internal relationships in the participant group.

 S.06 — The designer/facilitator decides to conduct (part of) the workshop in a new place or set-up. By a *new place/set-up*, I mean a (type of) place/set-up in which the child participants have never been. For instance, when a child participant has been to a city park but not to the *Parc de Forest* in particular, a city park is not a *new* place to the child participant unless the *Parc de Forest* has a special character that is different from a typical city park. Similarly, when a child participant has been to an art museum before but not to Wiels, it does not really count as a *new* place, unless Wiels has a particular set-up and approach that is radically different from that of a usual art institution setting. The *Tryckverkstaden* set-up in the *Recipes for unControl* is an example of a *new* place/set-up because in this case the set-up and approach were radically different from a conventional art gallery set-up and approach (see #5 *A Disturbing Voice*). The *Tryckverkstaden* set-up is also an example of a complex place/set-up.

 S.07 — The designer/facilitator decides to conduct (part of) the workshop in a contradictory place or set-up. By a *contradictory place/ set-up*, I mean a (type of) place/set-up that contradicts the assignment the child participants plan to work on in this place/set-up. For instance,

in the *Recipes for unControl* workshop, I asked the young participants to attend a workshop organised as part of their art classes in a different room from that in which they normally had their art classes.

S.08—The designer/facilitator decides to conduct (part of) the workshop in a familiar place/set-up. In many cases, child participants will interpret a *familiar place/set-up* in a conventional way which has a limiting effect on the interpretation of the place/set-up. However, when child participants operate in a familiar place/set-up but in a new context (e.g. the workshop context), their interpretation of this place/set-up will probably evoke their subjective interpretations. In addition, when child participants work in a familiar setting together with other workshop actors who interpret the same place/set-up each according to her/his personal experiences (thus different experiences), the child participants will probably develop awareness about each of their different interpretations. This is especially the case when the participant group consists of a diversity of members and/or members who have no pre-existing internal relationships. In other words, understanding how other workshop actors see, experience, and use a certain setting in other ways will challenge the workshop actors' conventional interpretation of a place/set-up. For instance, in the *Playful Rules* workshop, the child participants suggested visiting and exploring their favourite places in the park instead of describing them. When the workshop actors visited and explored the different places and developed an understanding of how they could use those places differently, they discovered many new views on this setting.

S.09—The designer/facilitator reconfigures a conventional place/set-up. This design intervention can disrupt conventional interpretation and provide additional information for interpreting the conventional or familiar place/set-up in new ways. For instance, in the *Recipes for unControl* workshop, I transformed the conventional classroom by removing all the chairs and tables resulting in an empty space (see #3 *Empty Room with Principles*).

S.10—The designer/facilitator decides to conduct the workshop in a variety of places/set-ups instead of organising the workshop in one place/set-up only. Changing places amplifies the unfamiliar and openness in the interpretation of the setting. This option can also help the facilitator to find out which (kinds of) places/set-ups have a positive effect on opening up the interpretation of a setting for a particular group of child participants.

S.11—The designer/facilitator decides to conduct (part of) the workshop in a place/set-up that is part of real-life situations (i.e. the field; Koskinen et al., 2011) instead of organising the workshop in a confined setting. On one hand, working in a place/set-up that offers real-life situations (e.g. a public place) presents a variety of elements from which the workshop actors can build a personal interpretation. It offers more opportunities for e.g. interpretations based on their previous experiences in the particular place/set-up. On the other hand, a confined setting (e.g. a room in a school or an art museum) tends to produce conventional interpretations and should be avoided.

S.12—Openness in assignment and material, enabling the child participants to use the assignment and/or material differently, has a positive effect on suggesting new ways of working in the setting.

Opening up the Interpretation of the Workshop Actors' Roles

Introducing openness into the interpretation of the workshop actors' roles is primarily about challenging normative roles and child–adult relationships. Building further on my experience in the *Public Play* workshops, I suggest the following ways in which the designer/facilitator can open up the interpretation of the workshop actors' roles:

R.01—The facilitator plays a new, contradictory, or complex role that transgresses the conventional designer role and/or the conventional adult role.

For instance, in the *Playful Monstration* workshop, the facilitator played the roles of facilitator, workshop participant, and researcher which challenged and opened up the interpretations made by the child participants. In the same workshop, the facilitator left some decisions up to the child participants. This attitude made the child participants perceive the facilitator in a new way/role whilst at the same time, it helped to open up new interpretations of their child participant role. In the workshop situation #5 *A Disturbing Voice* the facilitator did not provide any assistance or feedback to the young participants' art making. This adult attitude was quite contradictory to what the young participants were used to from school.

R.02—The facilitator plays a role that shows equality and sharing responsibilities.

For instance, in the workshop situation #3 *Empty Room with Principles*, the facilitator called for "intellectual equality" (Rancière, 1991[1987]) and played the role of *the ignorant facilitator* (cf. the ignorant

schoolmaster; ibid.). In this role, she publicly questioned the way she had designed the assignment and chosen the material and setting. She also shared her personal doubts about whether her suggestions were appropriate or what other possibilities could be worth exploring besides her own. She showed herself as a person who does not have the perfect or only answer. Furthermore, she invited the young participants to make their own suggestions about how they would like to work on the workshop question.

R.03—The facilitator encourages the child participants to play a new, contradictory, or complex role that transgresses the conventional participant role and/or the conventional child role.

For instance, in the *Recipes for unControl* workshop, the facilitator suggested that the young participants should play a "jester" role (Boal, 2000[1979]). In this role, they would act as a 'critical friend'. This role was unexpected and new to them. In addition, the role enabled the development of their critical awareness and empowered them to share their personal and critical opinions. In the *Playful Monstration* workshop, the facilitator asked the child participants to create an artistic sculpture out of the video-camera. This artist's role was new and frightening to some of the child participants. They felt pressure to make a perfect artwork. The facilitator had to lower their expectations by encouraging them to explore possibilities that can but do not have to *succeed*. In the *Dialogue Shapers* workshop, the role-play games suggested some child participants performing the role of a parent (contradictory role) or the role of a policymaker (new, contradictory, and complex role).

R.04—The facilitator encourages the child participants to play an active and responsible role.

For instance, at the start of the *Recipes for unControl* workshop, the facilitator introduced the three 'principles for collaboration' of which the third principle encouraged the young participants to disagree with the designer's prescribed workshop process actualisations and make their own propositions. These principles activated the young participants' empowered role in the workshop process.

R.05—The facilitator encourages other adult workshop actors to play unconventional roles. S/he can do this by giving them a specific role in which they are *forced* to transgress their conventional behaviour, hence preventing the reproduction of conventional roles.

For instance, at the start of the *Recipes for unControl* workshop, the facilitator suggested that the teacher should play the role of note-taker.

This role limited her to taking a more passive and observant position in the workshop. A more radical intervention is simply not to invite these actors into the workshop. In some cases, such workshop actors (e.g. teachers, child-carers) are present out of habit, curiosity, and responsibility and they do not offer any added value to the workshop but are likely to close the interpretation. However, it requires a careful assessment of the benefits versus disadvantages of involving such actors because they can often make an important bridge between the facilitator and the child participants.

R.06—"Ambiguity of information" (Gaver et al., 2003) has a positive effect on opening up the interpretation of the workshop actors' roles. When the child participants become aware that they can actualise an assignment, material, and/or setting in a different way from the designer's/facilitator's prescription, it almost automatically prompts them to take a new and more active role in the process. In other words, the child participants having a personal say in the actualisation of an assignment, material, and/or setting can empower them to test and actualise new roles.

R.07—"Ambiguity of relationship" (ibid.) has a positive effect on opening up the interpretation of the workshop actors' roles. Ambiguity about the facilitator role has a positive effect on opening up the interpretation of the child participants' role because the child participants will change their attitude as a reaction to the change in behaviour/role of the facilitator. Vice versa, ambiguity about the child participants' role has a positive effect on opening up the interpretation of the facilitator's role.

R.08—"Ambiguity of context" (ibid.) has a positive effect on opening up the interpretation of the workshop actors' roles. For instance, situating the workshop in the context of children's participation in society—a context that aims to advance the democratic project by treating citizens equally and removing unjust boundaries between children and adults on all levels—can help the child participants to play a more active role and remind the facilitator about the importance of balancing power relationships and their related roles.

Furthermore, when the facilitator wants to create openness in the workshop actors' roles by playing a new, contradictory, or complex facilitator role (as in the suggestions R.01 and R.02), it is important that the facilitator is conscious and critical about her/his own behaviour and vigilant so as not to relapse into a normative role. For instance, in the workshop situation described in *#2 Interviewing the Parking Meter*, the

facilitator first played an unconventional adult/designer role but she fell back into a conventional adult/designer role when instructing the children how to interview the parking meter.

Finally, whereas it is important to introduce and sustain a democratic mindset from the very start of the workshop process and gradually activate openness in the workshop actors' roles, it will take some time until the child participants feel confident enough to appropriate "ambiguity of relationship" (Gaver et al., 2003). In other words, it takes trust, gained over time, for the child participants to actualise new roles. Thus, in order to support the child participants' exploration and performance of new roles, the facilitator should accommodate certainty and trust. In addition, the workshop actors may feel more confident in actualising new roles when they feel empowered through being equally involved in decision-making about the workshop assignment, materials, and/or setting. Thus I recommend designers to encourage a democratic mindset and introduce a democratic ethos (e.g. the three 'principles for collaboration' in the *Recipes for unControl* workshop, see #3 *Empty Room with Principles*) at the very start of the workshop. They can then gradually introduce openness into the workshop actors' roles without expecting them to play alternative roles until a bit later in the process.

Nevertheless, the transition from a conventional role to a new, more democratically orientated role is a huge change. Leaving conventional roles often results in confusion, disbelief, discomfort … with relapse and possibly also with abuse of power. By the latter, I mean situations in which the workshop actors feel empowered to make changes and test their agency to the limit without involving other workshop actors in the decision-making about the process actualisation and without considering and respecting other meanings/possibilities. One instance is situations in which the child participants decide alone about the process actualisation without involving the facilitator (e.g. #6 The Car Wrestlers).

Openness in the workshop actors' roles also implies the workshop actors' exploration of *new* roles for sharing responsibilities.

Opening up the Interpretation of the Workshop Goal

Building further on my experience in the *Public Play* workshops, I suggest the following three ways in which the designer/facilitator can open up the interpretation of the workshop goal:

G.01—The facilitator makes clear to the child participants that they can work on the workshop question according to their personal interests.

S/he also encourages the child participants to develop awareness about their personal gain in the workshop and s/he supports them in involving these personal goals. Furthermore, the facilitator needs to be transparent and honest about her/his personal agenda with the workshop and make clear to the child participants that her/his personal agenda is *just* one of many possible agendas, hence not to be situated within a hierarchy. For instance, at the start of the *Recipes for unControl* workshop, the facilitator explained the workshop question explicitly whilst she encouraged the young participants to discover their personal interest in the workshop question and situate their workshop participation in relation to their personal agenda.

It is important to know that although the designer/facilitator aims to open up the interpretation of the context of the workshop question, the meaning of the workshop question itself is kept closed and should stay closed (i.e. responsibilities). As I have mentioned earlier, the workshop question is the very reason why the workshop actors assemble and collaborate on a voluntary basis. Therefore, the meaning of the workshop question should stay closed at all times during the workshop process and should be clearly communicated at the very start of the workshop. In other words, there is a difference between the *workshop question* prescribing a single meaning (closed interpretation) as opposed to the *workshop goal* striving for a diversity of meanings (open interpretation). Thus it is important to distinguish the difference between the *workshop question* and the *workshop goal*. Whereas the workshop actors have the responsibility of keeping the meaning of the workshop question closed throughout the process (responsibilities), the meaning of the workshop goal can be opened up if the outcome of this question needs to serve a plurality of goals and agendas.

G.02 — The designer/facilitator situates the workshop question in a new, contradictory, or complex context (Budner, 1962). S/he can do this by e.g. providing novel, contradictory, or complex (ibid.) discourses about the workshop question, situating the workshop question in a novel, contradictory, or complex context, or formulating novel, contradictory, or complex (ibid.) workshop goals. For instance, building further on the previous example, the *Recipes for unControl* workshop, the facilitator encouraged the young participants to interpret their involvement in the workshop question according to their personal goals (personal contexts). In addition, the facilitator was transparent about her personal research goal (research context) and explained that the

workshop would end with an exhibition in the art gallery which introduced yet another context (art context).

Furthermore, the designer/facilitator should be careful not to provide vague descriptions of the workshop goal without encouraging the child participants to involve their personal interests (goals/agendas). This approach will most probably result in the child participants assuming that there exists a predefined workshop goal, predefined by the designer only, and they will try to find out what this predefined goal is. In other words, it will close the interpretation of the workshop goal instead of opening it up. This might be the case particularly when the child participants interpret the workshop actors' roles in a closed, conventional way. Thus the designer/facilitator should avoid giving *vague* descriptions of the workshop goal.

G.03—The designer/facilitator does not define a clear workshop outcome. Goals and outcomes are intrinsically connected. Defining a certain goal will influence the outcome and vice versa, prescribing a specific outcome determines the goal. In other words, when the designer/facilitator does not define the workshop outcome in a clear and specific way (i.e. a new, contradictory, or complex description of the outcome; Budner, 1962), s/he can help to create openness in the interpretation of the workshop goal. However, striving for openness in the workshop outcome does not mean that there should not be any outcome. Regardless of whether the outcome is tangible, intangible, or process-orientated, producing an outcome is necessary if the aim is to make change.

Finally, whereas it is important to introduce openness into the workshop goal from the very start of the workshop process, it may take more time before the child participants feel confident enough to change the predefined workshop goal. In addition, the workshop actors may feel more confident in actualising different workshop goals when they feel empowered after being equally involved in decision-making about components that produce less profound change: the workshop assignment, material, and setting components.

How to Close the Components of the
Workshop Structure

The facilitator will need to close the workshop structure in case the workshop actors experience the workshop structure as too open and their

uncertainty withholds them from working with the diversity of meanings. The facilitator can close the workshop structure by closing the interpretation of (some of) the components of the workshop structure.

Returning to the ambiguity mixing desk, the designer can close down one or more components in the workshop structure components.

Closing the Meaning of the Assignment, Material, and Setting

The designer/facilitator can close the interpretation of an assignment, material, or setting by choosing her-/himself which assignment the workshop actors are to work on, which material they are to use, and where they are to work on the assignment. Furthermore, the designer/facilitator can provide explicit information about each of these components by explaining what the assignment/material/setting entails and how—in which particular way—the workshop actors are to work with these components. The facilitator creates more closedness by providing detailed instructions or, more extremely, demonstrating to them what to do. The facilitator can also close the interpretation of an assignment, material, or setting by rejecting and correcting the child participants' personal interpretations or by prescribing conventional assignments, materials, or settings.

Closing the Meaning of the Workshop Actors' Roles

Secondly, the designer/facilitator can direct the child participants to play a conventional participant and child role. In this conventional role, the children will follow prescriptions instead of initiating ideas, and they must do what is asked of them without further (critical) questioning. In this conventional role, children assume a passive stance by taking on the assignment, material, setting, roles, and goal according to the vision of the adult facilitator.

Closing the Meaning of the Workshop Goal

The designer/facilitator can close the interpretation of the workshop goal by foregrounding one explicit goal as a guiding principle for interpreting the assignment, material, setting, and the workshop actors' roles. Furthermore, s/he can clearly describe a specific context when introducing the workshop or with each new assignment. The facilitator can also reject and correct the child participants' personal interpretations of the workshop goal, suggesting a conventional workshop goal, or prescribing a specific workshop outcome.

*How to Awaken Different Forms of
Ambiguity, and When*

My research results have shown that

- introducing openness into the components of the assignment,
  material, or setting *has a positive effect on* awakening "ambiguity
  of information" (Gaver et al., 2003);
- introducing openness into the workshop actors' roles *has a positive
  effect on* awakening "ambiguity of relationship" (ibid.);
- introducing openness into the workshop goal *has a positive effect
  on* awakening "ambiguity of context" (ibid.).

I want to stress the 'having a positive effect on something' in the list
above, because, as I already mentioned earlier, it is not only by intro-
ducing openness into specific components of the workshop structure
that specific "forms of ambiguity" (ibid.) can be awakened. As I have
shown in "Appropriating Ambiguity" in 5.2, the conscious experience of
any "form of ambiguity" (ibid.) depends on the particular influence of
the surrounding components (i.e. open or closed interpretation space).

I also stressed the importance of creating a semi-open workshop struc-
ture because it enables the workshop actors to work with the emerging
diversity of meanings. The facilitator can create a semi-open workshop
structure by making a conscious decision about which components of
the workshop structure should be opened up and which ones should be
closed. These decisions depend on which "form of ambiguity" (ibid.)
is to be awakened.

- When aiming to awaken "ambiguity of information" (ibid.), the
  designer/facilitator should introduce openness into the interpreta-
  tion of the assignment, material, or setting whilst providing some
  level of closedness in the interpretation of the workshop actors'
  roles and workshop goal. The level of closedness in the workshop
  actors' roles and workshop goal corresponds to the surrounding
  components. If the designer/facilitator estimates that the sur-
  rounding components will produce an open interpretation space,
  s/he should provide a higher level of closedness in the workshop
  actors' roles and workshop goal. If the designer/facilitator esti-
  mates that the surrounding components will produce a closed
  interpretation space, she should provide a low level of closedness
  in the workshop actors' roles and workshop goal.

- Returning to the ambiguity mixing desk. The designer/facilitator works at the workshop structure components board on which s/he puts one, two or all three components (the assignment, material, and/or setting) in an open position whilst keeping the child participants' role, the facilitator role, and/or the workshop goal in a closed position in correspondence with the estimated interpretation space of the surrounding components.
- Aiming to awaken "ambiguity of relationship" (ibid.) happens in a similar way but in this case the designer/facilitator should introduce openness into the interpretation of the workshop actors' roles whilst providing some level of closedness in the interpretation of the workshop assignment, material, setting, and goal. The level of closedness in the workshop assignment, material, setting, and goal corresponds to the surrounding components.
- Aiming to awaken "ambiguity of context" (ibid.) happens in a similar way but in this case the designer/facilitator should introduce openness into the interpretation of the workshop goal whilst providing some level of closedness in the interpretation of the workshop assignment, material, setting, facilitator role and child participants' role. The level of closedness in the workshop assignment, material, setting, facilitator role and child participants' role corresponds to the surrounding components.

Finally, I want to return to the different effects that the three "forms of ambiguity" (ibid.) have on the actualisation of a democratic process: content, roles, and agenda. Changes in content are more easily made at the start of the workshop process. However, changes in roles and agenda often happen a bit later in the workshop process; once the workshop actors are empowered due to constructive changes in content—i.e. once the workshop actors were equally involved in decision-making concerning the actualisation of an assignment, material and/or setting. In other words, whereas "ambiguity of information" (ibid.) can be awakened from the very start of the workshop process and throughout the process, the other two forms of ambiguity (ambiguity of relationship and ambiguity of context) may only be awakened a little further on in the process and after the workshop actors have positive experiences from working with "ambiguity of information" (ibid.).

6.4
Directing the Negotiation

The designer will need to direct the forthcoming negotiation in order to help the workshop actors (the facilitator and the child participants) to actualise the process according to the diversity of meanings emerging from ambiguity.

In chapter 5, I have shown that once the workshop actors have consciously experienced an ambiguous workshop structure, they face a diversity of meanings about the workshop structure and a diversity of possibilities for actualising this workshop structure. If these meanings conflict, the workshop actors will have to negotiate them. I have identified three forms of negotiation that have a positive effect on actualising a democratic process (co-existing meanings, conflicting meanings not requiring a choice, conflicting meanings requiring a choice with equal decision-making). The facilitator can guide the negotiation by observing and evaluating the workshop actors' behaviour and make relevant interventions if needed. This means that the facilitator also has to observe, evaluate, and possibly intervene in her/his own behaviour. I developed a decision tree[52] that can help designers to guide their decisions when directing the negotiation.

Lay-Out of the Negotiation Decision Tree

In essence, the negotiation decision tree (figure 6.3) guides the facilitator through a chronological set of questions. These questions help the facilitator to develop a better understanding of the particularities of the negotiation. More importantly, by answering these questions, the diagram will suggest relevant decisions that reveal practical ways in which the facilitator can intervene and direct the negotiation process towards the actualisation of a democratic process.

It is important to note that this decision tree represents the decisions taken by the facilitator when directing the workshop actors'

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[52] A decision tree is "a tree diagram used to represent the various stages of a decision-making process, typically with each node representing a decision or question and each branch representing a possible consequence or answer resulting from the previous node" (Lexico.com, 2019).

negotiation and does not refer to the decisions taken by the workshop actors themselves during the negotiation.

The Basic Working Principles

Decision node 1: Does the diversity of meanings generate possibilities that put safe and ethical behaviour at risk, neglect the workshop question, or counteract a democratic outcome?

A first and important question the facilitator needs to ask is whether the actualisation of the meanings suggested will interfere with the workshop actors' responsibilities—i.e., whether these meanings breach a safe and ethical code of conduct, whether these meanings do not exclude a democratic outcome, and whether these meanings do not interfere with the workshop question.

In case the answer is positive, the facilitator should help to eliminate those meanings because they obstruct a democratic process. The facilitator can do this by reminding the workshop actors about their workshop responsibilities—i.e., help them to develop awareness about their responsibilities—and in case this does not work out, s/he will need to block those meanings. In addition, s/he can set up a group discussion in which the workshop actors reflect on and clarify the relation between those harmful meanings and their responsibilities. S/he might also need to explain why certain meanings are not beneficial for actualising a democratic process and encourage the workshop actors to propose safe and ethical meanings that secure a democratic outcome and contribute to the workshop question (see the actualisation of unsafe meanings of the rope in #6 *The Car Wrestlers*).

When the answer is negative or when the workshop actors/facilitator have excluded those meanings interfering with the responsibilities, the facilitator can move to the next question.

Decision node 2: Does the diversity of meanings generate possibilities that are in conflict with each other?

This second question focuses on whether the actualisation of these several meanings causes any conflict. By conflicting meanings, I mean meanings that generate possibilities that cannot be actualised at the same time by the whole group. (see #7 *The Car Wrestlers*: the workshop actors wanted to work on the *Herrekijkers* assignment in two different locations).
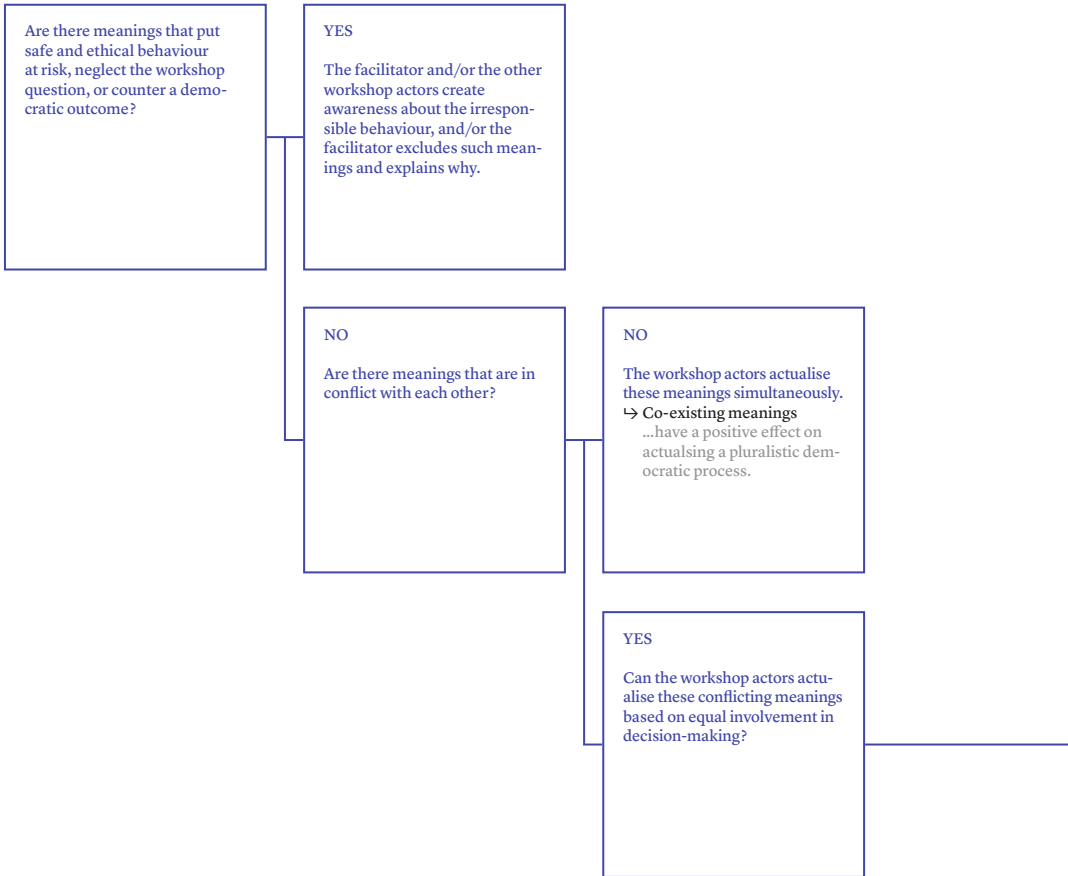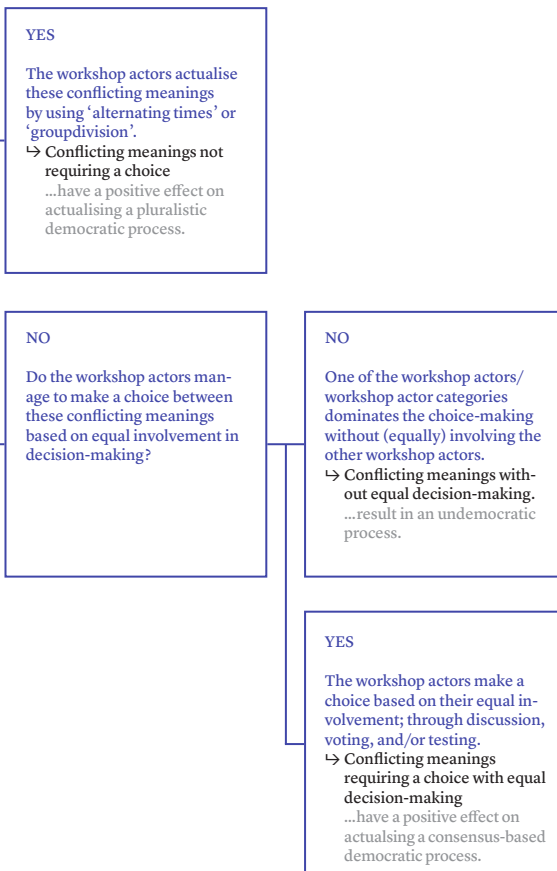
Are there meanings that put safe and ethical behaviour at risk, neglect the workshop question, or counter a democratic outcome?

YES

The facilitator and/or the other workshop actors create awareness about the irresponsible behaviour, and/or the facilitator excludes such meanings and explains why.

NO

Are there meanings that are in conflict with each other?

NO

The workshop actors actualise these meanings simultaneously.
↳ **Co-existing meanings**
...have a positive effect on actualsing a pluralistic democratic process.

YES

Can the workshop actors actualise these conflicting meanings based on equal involvement in decision-making?

Figure 6.3
Diagram visualising the negotiation decision tree.

YES

The workshop actors actualise these conflicting meanings by using 'alternating times' or 'groupdivision'.
↳ **Conflicting meanings not requiring a choice**
...have a positive effect on actualising a pluralistic democratic process.

NO

Do the workshop actors manage to make a choice between these conflicting meanings based on equal involvement in decision-making?

NO

One of the workshop actors/ workshop actor categories dominates the choice-making without (equally) involving the other workshop actors.
↳ **Conflicting meanings without equal decision-making.**
...result in an undemocratic process.

YES

The workshop actors make a choice based on their equal involvement; through discussion, voting, and/or testing.
↳ **Conflicting meanings requiring a choice with equal decision-making**
...have a positive effect on actualsing a consensus-based democratic process.

When the meanings suggested do not conflict, the workshop actors can simultaneously actualise them. The simultaneous actualisation of non-conflicting meanings results in a pluralistic process representing the different workshop actors and/ the workshop actor categories. (see negotiation by *co-existing meanings*, e.g. #1 *The Birth of Mister Wiels*).

However, when the diversity of meanings produces conflict, the facilitator must deal with the third question.

Decision node 3: Can the workshop actors actualise these conflicting meanings on the basis of their equal involvement?

This third question focuses on whether the workshop actors manage to put these conflicting meanings into practice—i.e., whether they manage to put these conflicting meanings into practice through negotiating their actualisation through *alternating times* or *group division*.

In *alternating times*, the workshop actors put the conflicting meanings into practice as one group but by using alternating time periods (see the location choice in #7 *The Car Wrestlers*). In *group division*, the workshop actors divide themselves into smaller groups and actualise the conflicting meanings in different groups at the same time. (see exploring the neighbourhood from different roles in #2 *Interviewing the Parking Meter*). The simultaneous actualisation of conflicting meanings results in a pluralistic process representing the different workshop actors and the workshop actor categories. (see negotiation by *conflicting meanings not requiring a choice*, e.g. #2 *Interviewing the Parking Meter* and #7 *The Car Wrestlers*).

However, when the facilitator detects that the conflicting meanings cannot be put into practice, s/he must move on to the fourth question.

Decision node 4: Can the workshop actors make a choice between these conflicting meanings on the basis of their equal involvement?

This fourth question focuses on whether the workshop actors manage to make a choice through their equal involvement in this decision-making. When the workshop actors do not manage to put the conflicting meanings into practice, they will need to make a choice about which of these conflicting meanings should be actualised. This means that the workshop actors, together, will need to come to an agreement. Because these conflicting meanings most often express the workshop actors' personal interests, this form of negotiation *(conflicting meanings requiring a choice with equal decision-making)* is power-sensitive and requires extra attention from the facilitator. The facilitator will need to

support the workshop actors' choice-making carefully by making sure that everybody is equally involved.

If the workshop actors manage to make a choice amongst the conflicting meanings on the basis of their equal involvement, then they succeed in actualising a democratic process. However, this form of negotiation *(conflicting meanings requiring a choice with equal decision-making)* does not result in a diversity-rich process but a single democratic process based on consensus. The facilitator can support the workshop actors' equal involvement by guiding the *discussion, testing,* or *voting* that supports such choice-making. I will further elaborate on the facilitator's role in this process in the next section: additional advice.

However, when the facilitator does not manage to involve all the workshop actors equally in this choice-making, the negotiation will not result in a democratic process.

Additional Advice

How to Involve the Workshop Actors
Equally in Choice-Making

The facilitator can support the workshop actors' choice-making amongst conflicting meanings by facilitating their equal involvement in the decision-making. In practice, the facilitator makes space and time for discussions, voting, and testing whilst facilitating the actualisation of equal power relationships between all the workshop actors.

When using the *discussion* format for such choice-making, the facilitator must encourage the workshop actors first to reflect individually about their choice and arguments before they share their personal choice and arguments with the other workshop actors. The facilitator may not force the workshop actors to share their thoughts but should emphasise the need to show respect for each other's choices and seriously consider them when making a final choice together. The facilitator will help the workshop actors gradually to develop an agreement based on equal power relationships. If the workshop actors do not manage to come to an agreement through discussion only, the facilitator may decide to proceed to using the *voting* format.

When using the *testing* format for choice-making, the facilitator must first check whether all the workshop actors are aware of their

action being a *testing*—i.e., a provisional action meant as a suggestion instead of a final decision. Next, the facilitator must motivate the workshop actors to respond in a friendly way showing respect and care. The facilitator must respect the workshop actors' freedom to respond in their preferred language—i.e., in words or actions (see: children's alternative negotiation languages, in 5.2). The facilitator must also encourage 'the testing party' (those who made the first step) to consider the response of 'the tested party' (those who react to the first step) in an equally friendly way showing respect and care. As with the *discussion* format, the facilitator must help the workshop actors gradually to develop an agreement based on equal power relationships. If the workshop actors do not manage to come to an agreement through testing only, the facilitator may decide to try the discussion format and in case that does not work, to proceed to the *voting* format.

When using the *voting* format for choice-making, the facilitator must encourage the workshop actors first of all to reflect individually about their choice and arguments before they make this personal choice public in their voting. Next, the facilitator or (one of) the workshop actors must calculate which possibility gained the most votes. I suggest using the testing or discussion format rather than the voting format because testing and discussion offer a qualitative negotiation meaning that a diversity of possibilities is considered through argumentation whereas voting only offers quantitative negotiation. Nevertheless, voting has certain advantages. It can be interesting, such as when a discussion results in two opposing camps or when a discussion results in a loop of reiterated arguments that stop progress and decision-making.

How to Deal with Children's Alternative Negotiation Languages

In chapter 5, I pointed to the presence of conflicts due to differences in languages between the adult facilitator and the child participants. It is not only a matter of differences in vocabulary and development of their spoken language but also about adults' ignorance of children's "hundred languages" (Malaguzzi, 1970 from Cagliari et al., 2016). Thus it is important for the designer and facilitator to anticipate those language differences and encourage the workshop actors to value and use a diversity of languages in the negotiation. In practice, the workshop actors

need firstly to consider that they all master the spoken word language at different levels.

Secondly, the workshop actors need to understand that they have the freedom to choose the language they feel most comfortable in (most skilled in) whilst considering the impact of the language chosen. By the latter, I mean that the workshop actors should prioritise a language that hinders them least in their mutual communication, interaction, and collaboration, because they want to ensure that their opinions and arguments are well understood by each other. In other words, the choice of language should avoid ambiguity in communication. For instance, there may be a workshop actor who is skilled in making visualisations and therefore prefers to draw her/his thoughts instead of writing them down. As an example, starting from the designer/facilitator's perspective: when knowing that the child participants are too young to read complicated diagrams or maps, the designer/facilitator may decide that her/his idea to facilitate the negotiation on the basis of such diagrams/maps is not a good idea.

Thirdly, the workshop actors should involve and possibly use alternative languages such as body language, sounds, drawing, modelling, etc. This implies that the adult workshop actors should seriously engage with those alternative languages. They must work on deciphering their meanings and preventing ambiguous communication whilst at the same time being aware that they can never fully understand the child (Malaguzzi, 1970 from Cagliari et al., 2016). Typically, adults find it difficult to use such alternative languages because they need to transgress normative borders (i.e. conventional adult role and behaviour). In order to improve adults' engagement and skills in using these alternative languages, I suggest that they actively and unrestrainedly explore the possibilities of those languages by using those languages themselves (e.g. experimentation, improvisation). Adults will need to put aside their feelings of shame or embarrassment and instead put on their artistic hats. No doubt this requires courage and a few attempts.

Furthermore, although I refer here specifically to children's alternative languages in the context of negotiating the diversity of meanings/possibilities, I recommend to consider a diversity of languages and alternative languages throughout the *ambiguity approach*. Embracing and using alternative languages has a number of benefits. For instance, it can encourage the workshop actors to interact with each other in new ways (i.e. openness in the workshop actors' roles) which can have a positive

effect on awakening "ambiguity of relationship" (Gaver et al., 2003) and on increasing social bonding and trust. Furthermore, it can help the facilitator to *read* the child participants' voices in alternative ways by involving their personal backgrounds and complexity. For instance, imagine a situation in which a child participant is asked to give her/his opinion about the (soft) mobility issues of an important avenue in her/his neighbourhood. The child may feel obliged to say something that is in line with the facilitator having an outspoken interest in climate change. She says that the avenue is nice because there are many trees that take care of *cleansing* the air. However, what she really wanted to say (according to her personal interest) is that the avenue is nice because there are many trees and she likes climbing trees. However, a facilitator who is open and attentive to those alternative languages may detect that the child is not enthusiastic about her opinion or that her facial expressions (e.g. shining eyes) or the tone of her voice (e.g. little excitement) indicate that there is more to be discovered about her answer. By reading and engaging with those *other* languages, the facilitator can develop a better and more complex understanding of the child's opinions.

How to Deal With the Facilitator's Dual Role in the Negotiation

When I introduced the new designer roles (see: New Designer Roles, in 5.4), I pointed out that the facilitator was playing a dual role in the negotiation, and the difficulty of that. Whereas in one role, the facilitator directs the negotiation, in the other role, s/he participates in negotiating the diversity of meanings/possibilities. The question of how the facilitator deals with separating these two roles is a matter of ethics and care. The facilitator succeeds in managing the dual role when s/he puts aside her/his personal agenda when directing the negotiation. Although the facilitator may be aware and willing to separate these two roles, it may not always be easy to realise in practice. Therefore, practising a dual role requires the facilitator to develop self-awareness about which role s/he is playing when and how and to be honest and transparent to the other workshop actors about which role s/he is playing. Developing this awareness and subsequently controlling her/his actions and interactions is yet another difficult task that can be facilitated through an experience-based learning process.

Developing Self-Awareness

The facilitator observes her/his own behaviour and critically evaluates whether s/he is prioritising a democratic agenda when s/he is directing the negotiation. This self-awareness enables her/him to adjust her/his behaviour. In other words, when the facilitator realises s/he is using her/his personal agenda instead of a democratising agenda when directing the negotiation, s/he has the responsibility to *correct* her/his behaviour. More practically, the facilitator can develop this *dual role* self-aware-ness through a mixture of "reflection-in-action" (Schön, 1983), "reflec-tion-on-action" (ibid.), and *reflection-with-peers*.

D.01—The facilitator observes her/his own behaviour whilst s/he interacts with the other workshop actors during the workshop situation. This "reflection-in-action" (ibid.) enables the facilitator consciously to shape and adjust her/his behaviour and roles *when* interacting with the child participants.

For instance, if (some of) the child participants propose an alterna-tive understanding of the workshop structure, the facilitator must hold back her/his spontaneous response and, instead, run through a number of questions based on the negotiation decision tree[53].

In short, the facilitator must try to eliminate instant or sponta-neous reactions that reproduce conventional behaviour but instead produce conscious reactions and interactions that are open to actualis-ing the process according to a diversity of meanings and not prioritising her/his own suggestion.

D.02—The facilitator observes her/his own behaviour after s/he has interacted with the other workshop actors after the workshop situ-ation. Such "reflection-on-action" (ibid.) enables the facilitator to learn from experience and prepare her-/himself for consciously shaping her/his behaviour and roles in future workshop situations.

The facilitator must develop *post factum* reflections whilst try-ing to get as close as possible to the real event and keeping a critical

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[53]
In practice, s/he must first evaluate whether the child participants' proposal may put their responsibilities at risk. If their proposal does not interfere with their responsibilities, s/he must encourage the simultaneous actualisation of all the suggestions/meanings without prioritising her/his own suggestion. Fur-thermore, s/he must direct the negotiation on the basis of the equal involvement of all workshop actors in this decision-making, whilst aiming to actualise the diversity of suggestions/meanings.

perspective (distance) at the same time. In practice, I suggest that the facilitator invites a person to record some workshop situations on video and watches this video documentation afterwards whilst focusing on the interactions between the child participants and her-/himself. I recommend that facilitators watch the same workshop situation several times because each time they watch it, they will discover new perspectives and develop further insights.

Furthermore, it may be important to mention that conducting self-observation through video documentation can be very confronting and may even cause a professional crisis. If this is the case, it is a good idea to share your concerns with peers.

D.03—The facilitator invites peers to observe her/his behaviour when s/he interacts with the other workshop actors during the workshop situation. The peers act as critical friends and help to develop the facilitator's reflection. Thus, in a *reflection-with-peers*, the facilitator develops critical awareness about her/his behaviour and roles through discussion with peers or from learning through the intervention of peers.

If a critical peer friend takes part in the workshop situation, s/he may point to situations in which the facilitator's behaviour is *problematic*. The critical friend may intervene in the facilitator's *problematic* behaviour through her/his actions, and suggest *better* behaviour (similar to the "spect-actor" role in the "forum theatre"; Boal, 2000[1979]). Inviting the critical friend into the workshop can support "reflection-in-action" (Schön, 1983) enabling the facilitator to adjust her/his behaviour during the workshop. For instance, during the first day of the *Dialogue Shapers* workshop, I asked the external designer, to give feedback on my facilitator role, and I gave feedback to her.

If the critical friend/peer does not take part in the workshop situation, s/he can use reports about the workshop sessions (e.g. the written narratives and other forms of documentation) for discussing the facilitator's behaviour. This "reflection-on-action" (ibid.) discussion enables the facilitator to learn from experience and prepare her-/himself for consciously shaping her/his behaviour and roles in future workshop situations. For instance, at the TRADERS Open School, I invited a diversity of peers to give their critical views on the *The Car Wrestlers* written memorisation.

Being Honest and Transparent

The facilitator is honest and transparent to the other workshop actors about the insights s/he acquired from being self-aware about how s/he

performs the two roles. This open communication will help her/him to perform both roles in a *correct* way.

Gaining Experiences

The more and different experiences in separating those two roles the facilitator has, the easier it will become to manage this dual role. Assembling a diversity of *dual role* experiences contributes to the facilitator's learning process.

6.5
Responsibility Fulfilment

The designer will need to support the workshop actors (the facilitator and the child participants) in fulfilling their responsibilities.

When using the *ambiguity approach*, the workshop actors will need to consider both *general responsibilities*—like a safe and ethical code of conduct—and *additional responsibilities* that are specific to the aim of actualising a democratic process—like contributing to the workshop question and working towards a democratic outcome.

The particularity of the *ambiguity approach* lies in its potential to open up conventional meanings. However, when it comes to the workshop actors' responsibilities, these meanings should not be opened up in order to safeguard justice and caring relationships. The responsibility components of the ambiguity mixing desk should therefore stay in a fixed closed position. The responsibility aspect reveals part of the workshop actors' complex relationship with ambiguity: although the workshop actors should embrace ambiguity in order to generate a diversity of meanings, they also need to reduce ambiguity in order to fulfil their responsibilities.

The facilitator can help the workshop actors in fulfilling their responsibilities. S/he should take action from the moment signs of irresponsible behaviour appear. I do not recommend the facilitator giving a general lesson or *warning* at the start of the workshop because this can have a negative effect on developing shared responsibility. Furthermore, the facilitator giving an introductory *lesson* will most probably have a closing effect on the interpretation of the workshop actors' roles because s/he plays a conventional adult role (i.e. the parent or the teacher role).

The workshop actors can work on their responsibility fulfilment by accomplishing two aspects. Firstly, the workshop actors need to develop awareness of when and why their behaviour is not contributing to fulfilling their *general and additional responsibilities*. Secondly, the workshop actors need to develop a common understanding of these responsibilities.

Firstly, the workshop actors need to develop awareness of when and why their behaviour does not fulfil their responsibilities. The facilitator and other child participants can help the child-participant(s) to develop awareness about their irresponsible behaviour and make them aware of their ability to change their own behaviour. S/he/they can do this by pointing out the irresponsible behaviour. In many cases, developing this awareness alone is sufficient for the workshop actors to get back on track and *repair* their behaviour. However, if the child participant does not manage to restore her/his behaviour her-/himself, the facilitator/other child participants should explain why her/his behaviour does not fulfil a certain responsibility and possibly suggest how the child participant can behave in a way that does fulfil the responsibility. In the worst-case scenario, the facilitator/other child participants need(s) to intervene in a more radical way by eliminating irresponsible behaviour and, again, explain why this behaviour is irresponsible. The same procedure counts for the facilitator. However, in this case, the adult facilitator should have more experience and knowledge about her/his own responsibilities and can therefore also develop this awareness through critical self-observation and reflection in addition to listening to the *warnings* given by the child participants or peers when s/he does not behave according to her/his responsibilities. The previous suggestion points out another[54] dual role for the facilitator. In this case, the facilitator needs to help the child participants to fulfil their responsibilities whilst at the same time, s/he needs to be vigilant about her/his own behaviour and ensure that her/his own behaviour fulfils these responsibilities.

Secondly, the workshop actors need to develop a common understanding of these responsibilities. The workshop actors' responsibilities may be unclear or ambiguous for some of them. For instance, although the designer/facilitator communicates the workshop question explicitly, (some of) the child participants may understand this workshop question

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The facilitator also has a dual role in guiding the negotiation (see 6.4).

in a different way. Similarly, ethical behaviour or a democratic outcome may be different for the designer/facilitator and the child participants. It is therefore important for the facilitator to interrupt the workshop process when signs of irresponsible behaviour appear, and to reserve space and time to develop a common understanding of the responsibility concerned. The facilitator should be vigilant so as not to impose a common meaning but to develop a shared meaning of what responsibility entails through the exchange of opinions and argumentation between all the workshop actors.

In the previous chapter, I also pointed out the importance of the workshop actors' sharing responsibilities. This means that both the designer/facilitator and the child participants take responsibility for their shared decision-making developed through their equal involvement in the negotiation. Taking this shared responsibility requires a certain attitude in the workshop actors.

When it comes to the facilitator, s/he should learn to share responsibilities with the child participants. S/he needs to learn to see the child participants as responsible beings who are able to act responsibly. In addition, and building further on children's cognitive capacities developing with age, maturity, and experience, the child participants may have less in-depth knowledge about general responsibilities and about dealing with these. This means that some child participants may need additional support in learning to fulfil their responsibilities.

The child participants should learn that when they have a say in decision-making, they must take responsibility for that decision. However, they should also understand that they do not carry this responsibility alone but share it with the other people involved in the decision-making. Furthermore, the child participants should understand that taking responsibility is a learning process that develops with experience, time, and age. Also, it is normal to make mistakes or fail to fulfil their responsibilities at the start of their learning process, and others with more experience can support them in this learning process.

6.6
Experience-Based Learning

The designer will need to learn how to apply the ambiguity approach successfully by practising real-life situations and learning from experience.

The *ambiguity approach* is not a ready-made method. This strategic framework offers a guide but its application requires additional learning through real-life testing and experience. This learning process can help designers to adjust the basic *ambiguity approach* principles to the particularity of the situation and its context and to align the various principles in a balanced way. This learning process is based on experience (learning-by-doing), repetition (learning-through-time), and exchange (learning-from-peers).

Before continuing, I want to point out the need to distinguish the designer's learning process in how to work with the *ambiguity approach* and the workshop actors' learning process within the *ambiguity approach*. By the latter, I mean the mutual learning process in which both the designer and the child participants learn to share responsibilities *within* the *ambiguity approach* (see 5.2 in previous chapter). In this chapter and section (i.e., 6.6), I refer to the former meaning: the designer's learning process in how to use the *ambiguity approach*.

Learning-By-Doing

A *learning-by-doing* approach refutes the idea that knowledge is produced by books or instruction only. In contrast, learning is generated by the learners' own actions and their exposure to the real-life situations in which they act. *Learning-by-doing* is based on personal experiences: the learner produces actions and subsequently reflects on them (Schön, 1983). Furthermore, *learning-by-doing* is a "situated learning" (Lave & Wenger, 1991) meaning that learners learn from their experiences and the specificity of the situation and its context. It also means that the more different situations the learners engage in, the richer their learning process becomes. As a result, learners' *ambiguity approach* knowledge will grow due to time invested and through repetition. Finally, a *learning-by-doing* approach involves

trial and error in which the learners need to exercise patience and deal with the ups and downs that challenge this learning process.

In practice, I suggest that designers conduct their (participatory) design practice whilst exploring different conditions (e.g. locations, duration, partners, participant groups).

Learning-Through-Time

As I have just mentioned, *learning-by-doing* requires the investment of time. The learner-designer accumulates knowledge through the different situations s/he experiences over time. This means that *learning-by-doing* should be done as a *learning-through-time*. It is about repetition in doing whilst exploring a diversity of conditions which cultivate ongoing improvement.

This time-based learning process can start with a phase of exploring the guiding principles of the strategic framework through testing them in real-life situations followed by "reflection-on-action" (Schön, 1983). In the second phase, the learner-designer expands her/his knowledge by experiencing more and different situations. The third phase focuses on developing her/his "knowing-in-action" (ibid.) meaning that s/he is able to apply her/his *ambiguity approach* knowledge as if it were a natural thing to do. It concerns her/his capacity to apply the *aesthetics of working with ambiguity* without having to put too much effort into rationally directing her/his actions; it is rather a spontaneous act. By the *aesthetics of working with ambiguity*, I mean the designer's skills in tuning and balancing her/his actions accurately in order to produce a harmonious outcome, i.e., the designer's ability to tune a series of decisions into a successful application of the *ambiguity approach* in a specific situation. These decisions refer to e.g. which strategies to use when, which strategies do not work in combination with other strategies/in combination with certain internal conditions/in combination with external circumstances, and how to combine certain strategies.

Learning-From-Peers

Learning-by-doing can be enriched by *learning-from-peers*. I refer here to a learning *with* and *from* people who work according to a similar aim and approach (the *ambiguity approach*) but have different experiences of

practising the *ambiguity approach*. Just as in a "community of practice" (Wenger, 1998), learners can expand their knowledge scope through the mutual exchange or *trade* of their individual experiences and knowledge. Learning-from-peers can be beneficial in many ways. For instance, hearing both positive and difficult experiences from peers can enable the learner to open up new perspectives about her/his personal way of applying the *ambiguity approach*, and hence adjust and improve her/his approach.

Learning-from-peers may also be done in the format of having a critical friend. Because this peer is not involved as designer or facilitator in the workshop, s/he has more distance to the project and can reflect on somebody's practice and approach from a different (outsider) perspective. A critical friend like this may be directly or indirectly involved by respectively being part of the practice (a critical-friend-in-practice) or reflecting on documentation and/or reports about the practice (a critical-friend-on-practice).

6.7
Chapter Summary

In this chapter, I have addressed my second research question: "How can designers work with ambiguity when aiming to actualise a democratic process in participatory design practices with children?" As a response, I have developed an approach—the *ambiguity approach*—that aims to help designers and other practitioners working with ambiguity in a controlled and constructive way when aiming to actualise their practice as a democratic process. This chapter has mainly focused on describing this *ambiguity approach* on the basis of a strategic framework that should be appropriated according to the particularity of the situation. This strategic framework consists of five aspects the designer needs to work on:

1   The designer must support the workshop actors in cultivating a *mindset* that builds on democratic values, is responsibility-orientated, and embraces openness towards different cultures. In this first part of the strategic framework, I gave advice on how designers can *think* for constructively dealing with diversity, conflict, and risk-taking.

2   The designer must create an *ethos* that enables the workshop actors to deal with the challenges emerging from ambiguity. More specifically, I gave advice here on how designers can work on

nurturing trust, dealing with failure, being diplomatic about time, and cultivating diversity.

3   The designer must work on awakening the conscious experience of an ambiguous workshop structure and must create a semi-open workshop structure in order to make ambiguity *workable*. In order to explain how designers can balance openness by involving the many interacting components that can influence the interpretation of the workshop structure (the components of the workshop structure, the surrounding components, and the responsibility components), I have used the ambiguity mixing desk as a model. I explained the basic principles of mixing these three components and gave additional advice on how designers can deal with specific situations and the difficulties in them.

4   The designer must direct the negotiation in order to ensure the equal involvement of all the workshop actors in the decision-making regarding the diversity of meanings/possibilities. Her/his directing can also help to actualise a pluralistic democratic process in which the diversity of workshop actors is represented. I developed a decision tree that can guide the designer's decision-making towards those forms of negotiation that involve the workshop actors equally and safeguard a pluralistic democratic process. I also pointed out the difficulty for the facilitator in playing a dual role in this negotiation and highlighted the need to engage with children's alternative languages.

5   The designer must support the workshop actors in fulfilling their responsibilities. I explained the difference between general and additional responsibilities and the importance of creating awareness about irresponsible behaviour. I also gave advice on how the child participants and the facilitator can learn to share responsibilities.

Finally, I have explained that the success of the *ambiguity approach* does not depend on the step-by-step implementation of the strategic framework but relies on how the designer appropriates its basic principles according to the specific situation s/he encounters and its context. Here I highlighted the importance of experience-based learning for developing the designer's knowledge. Designers must learn how to appropriate the framework according to the particularity of the situation and its contexts through learning from real-life situations. I described this experience-based learning process as *learning-by-doing*, *learning-through-time*, and *learning-from-peers*.

By Way of Conclusion

In this last chapter, I will put forward the knowledge contribution of this thesis and its implications for participatory design with children and other design areas, for children's participation in society, and for democracy at large. I will also reflect on the limitations of my study and indicate directions for future research.

7.1
Research Contributions

In this thesis, I have explained how children as a social group have been excluded from participation in society for a very long time. However, from the second half of the twentieth century, children's active involvement in society has been promoted by e.g. postmodern ideas about childhood and the UN Convention on the Rights of the Child (UNCROC, 1989) which have resulted in the emergence of practices working on children's participation in society in a variety of fields, including participatory design with children. Today in 2020, after about thirty years of promoting children's participation in society, enormous progress has been made, but still existing practices are not unproblematic and require critical engagement and further development. This thesis is an example of such critical engagement and also points to the further development of this area. It departs from the standpoint that many, and perhaps even most, practices working on children's participation in society, while focusing on the realisation of a democratic *outcome*, ignore the potential of actualising their process as a democratic *process*.

My research has explored how designers can work on the actualisation of a democratic process by introducing openness into the interpretation of the workshop structure. Subsequently, the workshop actors have been supported in consciously experiencing ambiguity and using the emerging diversity of workshop structure meanings in the actualisation of the process. My results have shown that there exist various ways of actualising the diversity of meanings in the process (see: Four Forms of Negotiation, in 5.2) and that the actualisation of a democratic process requires that all workshop actors are equally involved in this decision-making. My research results also point to the necessity of fulfilling certain responsibilities in order to actualise a democratic process. Thus this thesis promotes ambiguity as a resource for actualising a democratic process in participatory design practices with children—i.e., a

process based on child–adult interactions that safeguard their freedom of opinion, their equal involvement in decision-making, and just (inter) actions. It contributes by providing a theoretical approach and a strategic framework that can help designers to actualise their participatory design practice as a democratic process by strategically working with ambiguity.

The theoretical contribution includes insights on how designers can take a critical and analytical look at the child–adult relationships and interactions driving the collaborative process in their practice. Moreover, it provides insights about the role of ambiguity when aiming to actualise a democratic process and foregrounds ambiguity as a resource for actualising a pluralistic democratic process. Ambiguity enables workshop actors to interpret the workshop structure according to a diversity of personal meanings. This opens up for involving the workshop actors' diversity of meanings regarding the process content, roles, and agenda in the process actualisation. Furthermore, the theoretical insights reveal how different forms of negotiating this diversity of meanings result in different kinds of process ranging from a pluralistic democratic process and a consensus-based democratic process to an undemocratic process. Finally, the theory emphasises values of justice by requiring the workshop actors to share responsibility for their joint process decisions; securing safe and ethical (inter)actions and a process contributing to the workshop question and a democratic outcome. Further on, the importance of the facilitator is stressed by addressing three main new designer roles: awakening and appropriating ambiguity, directing the negotiation, and supporting responsibility fulfilment.

A more direct contribution consists of the guidelines that aim to help designers to use the *ambiguity approach*. These guidelines give advice on how designers can strategically use ambiguity when aiming to actualise a democratic process. Applying the *ambiguity approach* requires learning from real-life situations based on experience (learning-by-doing), repetition (learning-through-time), and exchange (learning-from-peers). The guidelines focus on five aspects. The first set of guidelines can help designers to cultivate an ethically driven democratic mindset which will strengthen the workshop actors' awareness about the way they practise democratic values. The second set of guidelines focuses on the workshop actors' ethos. They help designers to create an appropriate environment for working with the challenges emerging from ambiguity, e.g. uncertainty. The third, fourth, and fifth sets of guidelines concern the meta-process that starts with how to introduce openness

into the interpretation of the workshop structure in order to actualise a pluralistic democratic process. In practice, the third set of guidelines can help designers to create a semi-open workshop structure that allows the workshop actors to experience an ambiguous workshop structure and use the diversity of meanings in the process actualisation (see the ambiguity mixing desk). The fourth set of guidelines supports designers' decision-making when directing the forthcoming negotiation as a decision-making in which all the workshop actors are equally involved whilst at the same time supporting the workshop actors' use of the diversity of meanings in the process actualisation (see the negotiation decision tree). A final set of guidelines gives advice about how designers can support the workshop actors in fulfilling certain responsibilities in the process of experiencing, negotiating, and actualising the diversity of meanings.

This thesis contributes to the ongoing discussion on the role of ambiguity in design, initiated by William Gaver and his colleagues through their 2003 study promoting ambiguity as a resource in design. Gaver et al.'s study, contrasting normative views that mainly see ambiguity as an obstruction for communicating a clear purpose, offered new possibilities for HCI design for domestic and public environments and have been further explored in the field of HCI. Recent discourses in participatory design have addressed the importance of including a diversity of publics in participatory design (Björgvinsson et al., 2012; Hernberg & Mazé, 2018; Kraff, 2020) but up to now the virtue of ambiguity has been underexplored and absent in the specific context of participatory design with children and the aim for democratisation in this context.

 With my research, I extend Gaver et al.'s study on the role of ambiguity in design. I point to a processual approach to ambiguity in contrast to Gaver et al.'s structural approach. More specifically, I have shown that it is not only necessary to have an understanding about the role of the three "forms of ambiguity" (Gaver et al., 2003) in the workshop actors' actions and interactions, but also about the *forms of negotiation* they use for deciding which meaning(s) to actualise in the process and how they deal with their *responsibilities*. This processual approach mainly originates from the way that both the participant (the *user* of the workshop structure) and the designer (the *maker* of the given workshop structure) in participatory design practices are simultaneously present when the participant interprets the workshop structure. This means that the designer's presence can strongly influence participants' interpretation.

For instance, in traditional participatory design focusing on children, the presence of the designer (in her/his facilitator role) mostly results in ignoring or reducing *other meanings*—here I specifically refer to the meanings resulting from the child participants' interpretation. However, in the *ambiguity approach* to participatory design with children, this diversity of meanings is embraced and used as a valuable resource for actualising a democratic process that represents the diversity of all the workshop actors involved: their values, backgrounds, and interests.

Thus, this thesis contributes in particular to the existing discourse and practices of participatory design with children. It foregrounds an alternative participatory design approach that builds on ambiguity for *also* including the meanings of the child participants in the process. In other words, ambiguity enables the actualisation of a participatory design practice with children as a democratic process in which the child participants *also* have the freedom to share their opinions about the process content, roles, and agenda, and in which they are equally involved in decision-making regarding the process actualisation, thus taking their full responsibility in this process.

Furthermore, the *research through design interventions* approach and its three-step research methodology (workshops—memorising—analysis) contribute to both arts-based research and design anthropology. This particular methodology can help art and design researchers to develop knowledge through their practice whilst at the same time being directly involved in this practice. It allows them to study something that is still in the process of becoming.

Firstly, the workshop method enables art and design researchers to do fieldwork whilst *intervening* in their fieldwork, and subsequently to study the effects of their "design intervention" (Halse & Boffi, 2016).

Secondly, situating the fieldwork in an artistic context (i.e. working with partners situated in art, using artistic concepts and methods) enables art and design researchers to combine radical experimentation (art) and develop actual change in the realities of everyday life (design). The simultaneous presence of imagination (art) and grounding (design) offers a fertile ground for innovative knowledge.

Thirdly, the memorisation method offers a new way of developing a *research distance* between the designer as practitioner and the designer as researcher, by involving various sources of information provided by the researcher her-/himself and other actors involved in the work-

shops (i.e. external observers, the child participants, or the teacher). This *research distance* is necessary for developing credible and valid findings when researching situations in which the researcher is directly and closely involved as a member of the group that is being studied.

Fourthly, the *written memorisations* offer a format for uniting ethnographic and auto-ethnographic descriptions and for integrating descriptions from various sources of information. This also enables the production of credible and valid empirical research material when the researcher is directly and closely involved in the fieldwork. More specifically, the *written memorisations* assembled:

• the researcher's ethnographic descriptions (based on her/his observations of the child participants' actions) providing information about the child participants' behaviour;

• the researcher's ethnographic descriptions (based on various sources of information/documentation) providing information about the child participants' behaviour, the facilitator's behaviour, and the interactions between the child participants and the facilitator.

• the researcher's auto-ethnographic descriptions (based on her/his personal and professional experiences as designer and facilitator) providing information about the facilitator's behaviour and about the facilitator's interactions with the child participants;

• the external observers' ethnographic descriptions providing information about the child participants' behaviour, the facilitator's behaviour, and the interactions between the child participants and the facilitator;

Fifthly, the analysis method enables art and design researchers to analyse the messiness of the social happening in a systematic way by *reading* the empirical material through the same analytical framework.

7.2
Research Implications

Implications for Participatory Design
With Children

In the second chapter of this thesis, I discussed how many participatory design practices with children typically organise and conduct their practice. This traditional approach consists of a designer creating a guiding

workshop structure and the child participants using this workshop struc-ture to develop the workshop process which, in turn, leads to the work-shop outcome. In this traditional approach, a facilitator[55] is present to *help* the child participants to use the workshop structure which is at the same time a way in which the designer can control the process development and its forthcoming outcome. I have criticised this approach because children's role is here reduced to *filling in* the predefined structure—like colouring inside the lines—where children merely *help the adult designer* to achieve her/his predefined plans and goals.

However, the *ambiguity approach* suggests a radically different ap-proach for working with children in participatory design practices. The *ambiguity approach* proposes opening up for interpreting the workshop structure in diverse ways—corresponding to the diversity of workshop actors—where the designer makes space for equally considering and possibly involving the child participants' meanings in the process actu-alisation. Thus the child participants become important players in the actualisation of the process. Furthermore, the particularity of ambiguity enables actualising the process as a pluralistic process that represents the meanings (values, backgrounds, and interests) of all the workshop actors, including those of the child participants. Thus the *ambiguity approach* enables a transition from a process actualisation defined by one person to a process actualisation defined by many, which can be read as a transition from a "striated" to a "smooth space" (Deleuze & Guattari, 1988). However, this "smooth space" (ibid.) is not always a harmonious space. It assembles a diversity of meanings—different and possibly opposing meanings—that most often give rise to conflicts. The *ambiguity approach* embraces such conflicts as constructive elements in the actualisation of a pluralistic democratic process (Mouffe, 2000). The *ambiguity approach* focuses on the *trouble* in process actualisation by dealing with conflict, negotiation, and responsibility, and takes on the struggle for making actual change.

The *ambiguity approach* proposes ambiguity as a constructive means for serious collaboration with children—i.e., by treating them

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In many cases, the person creating the guiding workshop structure (the de-signer) and the person helping the child participants to use this guiding work-shop structure (the facilitator) are the same person, meaning that the designer is present during the process actualisation as a facilitator.

as subjects who are equally capable and responsible when defining how workshop actors can collaborate on a common issue/question/situation. The *ambiguity approach* encourages designers to engage with what children give us in contrast to only working with what designers have in mind. Thus the *ambiguity approach* involves children in their *particip-actor* role meaning that children are approached as capable and responsible human beings who are critically aware of the unequal child–adult power relationships of which they are part and who can create change in these relationships (Freire, 2000[1968]). The *ambiguity approach* goes beyond reproducing romantic and exploitative ideas about children as ideal design partners providing radical imagination that can, in turn, boost and profit the creative needs of the design project. It also rejects the child in a "design partner" role (Druin, 1999). Whereas one can understand this "design partner" role (ibid.) as a positive development—because children are *empowered* as a partner in the design process—the "design partner" role (ibid.) reproduces the binary concept of expert-amateur, hence maintaining the dominant position of the adult expert in the process actualisation. The "design partner" role (ibid.) prescribes that children should use traditional design methods and languages (e.g. design drawings, mood boards, and mock-ups), limiting their free, equal, and just participation in the process actualisation. In other words, the "design partner" role (ibid.) tolerates the undemocratic attitude of designers who expect children to step into an (adult) design culture without they themselves, the designers, making an effort to step into children's cultures and encounter the individuals in them. In my view, democratic interaction means that the children are free to interpret the "designer partner" role (ibid.) according to their personal meanings (values, backgrounds, and interests) and that they are equally involved in deciding how they want to actualise the "designer partner" role (ibid.) whilst safeguarding their responsibilities.

HCI researchers Olle Sejer Iversen and his colleagues have already argued that children are able to take an active role in the design process and therefore, designers *should* involve children in their "protagonist role" (ibid.) in the design process (2017). My findings supplement their studies by offering an in-depth analysis of child–adult relationships and by proposing a methodological approach to help designers (or other adult practitioners) to support children in adopting the "protagonist role" (ibid.). Although HCI researchers Marianne Kinnula and Netta Iivari have made a first attempt to help children to adopt a "protagonist

role", their 2018 study is situated in the HCI context, proposing an educational approach, and indicating the need for further research. Whereas Kinnula's & Iivari's study unpacks the different roles children can take in creative design and making activities, they do not consider the influence of normative child–adult interactions and their unequal power relationships. The *ambiguity approach* addresses such relational framing and offers a way of involving the diversity of children's meanings.

However, actualising a democratic process and involving the child participants as *particip-actor* in the process is a matter of mutual change. This means that both the child participants and the designers need to be willing to play an active role in democratising the workshop process—i.e., they both need to be critically conscious of their behaviour and they both need to work on reconfiguring their normative behaviour into democratic actions and interactions. This also means that it is not only up to the adult designer/facilitator to use her/his "power to empower" (Chambers, 2014) but also up to the child participants to use their "power to" (VeneKlasen & Miller, 2002) and "power with" (ibid.), and hence perform their *particip-actor* role. The *ambiguity approach* enables this mutual engagement and change-making. On one hand, it enables designers to develop critical awareness about their actions and interactions, and open up for actualising the process in a different way from their initial plans. This means that designers need to engage with the unexpected and partly let go of control when it comes to realising their initial plans. Designers need to dare to take risks and face uncertainty whilst learning to deal with the "risky trade-offs" (Huybrechts et al., 2014) emerging from children's participation in the process. On the other hand, the *ambiguity approach* enables the child participants to develop critical awareness about their situation, and open up for taking an active role—the *particip-actor* role—in the process.

Implications for Design Education

This thesis offers hands-on material that can help design educators and design students to develop their training in participatory engagements with their design projects. More specifically, it can support design students in developing knowledge of how they can facilitate democratic interaction and collaboration when working with children in participatory ways. As I have already foregrounded in chapter 6, such training

should be based on experience (learning-by-doing), repetition (learning-through-time), and exchange (learning-from-peers). Whereas a design school context offers a good environment for learning through exchange with peers, the learning from experience requires the design school and its students to organise projects that offer real-life situations with a diversity of partners. This type of learning approach implies that design students should learn to work with a diversity of partners and the different contexts, agendas, and values they bring.

This thesis can also support design students in approaching the roles of design and designers more broadly, by learning how their practice can contribute to political change whilst at the same time developing a critical understanding of its limitations.

Furthermore, design students can develop a better understanding about the importance of facilitation and develop in-depth insights and skills about design facilitation as such.

Although I point here to the value of my study for formal design education, it can also contribute to informal learning practices like e.g. autodidact designers and designers who had their training in other fields but have changed focus and practice over time.

Implications for Other Design Areas

The insights I have presented in this thesis are without a doubt valuable for practices working in child culture design, especially those practices that work *in collaboration with* children. With my *ambiguity approach*, I hope to encourage child culture designers to develop awareness about the importance of designers engaging with and involving the complexity of children's cultures—children's meanings and their values, backgrounds, and interests—when aiming to actualise a democratic process. I also hope to convince them that a successful application of the *ambiguity approach* will produce better design outcomes. Moreover, I hope to encourage their role in actualising democratic design processes. Furthermore, the *ambiguity approach* offers child culture designers a framework that can help them to work on this hands-on.

Although in this thesis I have put special emphasis on the value of ambiguity for the specific context of participatory design with children, the proposed *ambiguity approach* can be valuable for participatory design practices in general. Firstly, it is a suitable approach for participatory

design practices aiming to work sincerely with other marginalised groups. This is especially valuable for recent developments in participatory design working on public issues and therefore assembling a diversity of publics (Björgvinsson et al., 2012). It can also be valuable for working on projects set up as North-South collaborations (Kraff, 2018). Secondly, some scholars have expressed their discontent about the way that recent participatory design developments have been accompanied by a loss of democratic values (van der Velden, 2014). The proposed *ambiguity approach* contributes to this discussion by reintroducing, stressing, and advancing democratic values in participatory design practices.

Furthermore, with regard to the value of ambiguity for challenging and reconfiguring normative relationships, actions, and interactions, this thesis may also be valuable for practitioners working in the context of relational design. Thus ambiguity can be seen as a valuable resource for this emerging design field mainly concerned with *designing* or reconfiguring human relationships (Blauvelt, 2008a). Whereas I have shown the value of ambiguity for *designing* more democratic relationships between designer and child participants in the context of participatory design practices working with children, the thesis also points out the value of ambiguity for reconfiguring normative child–adult relationships in other contexts and even for reconfiguring human relationships in general.

Finally, ambiguity is not specific or limited to participatory design practices. Ambiguity is everywhere but we need to be conscious of it in order to use its qualities. Therefore, we can consider ambiguity as a universal resource for democratising child–adult relationships, meaning that ambiguity can be a resource when democratising child–adult relationships in a variety of contexts. Thus the idea of actualising a democratic process through ambiguity can be transferred to a wide range of practices outside participatory design and design in general. I refer here to practices in a child–adult set-up (e.g. education, cultural practices) and to practices that deal with unequal power relationships and undemocratic interactions in general. However, whereas the theory contribution of this thesis may be easier to transfer to other fields, the framework requires specific adjustments in correspondence to the particularity of the new context.

Implications for Children's
Participation in Society

In many Western countries, children have been excluded from public decision-making processes until the second half of the twentieth century, even in issues that directly mattered to them (Wyness et al., 2004). Until then, decision-making was mostly considered as an exclusive affair for certain adults, in which these adults were seen as protagonists in making decisions on behalf of children in the belief that it was in children's best interest. This view has dominated for such a long time that it has become a normalised cultural practice. Today, after three decennia of postmodern ideas on childhood, children are considered as subjects with their own rights, including the right to participate in society (Hart, 1992). However, we are still facing many difficulties when it comes to putting those ideas into practice in everyday life. In this thesis, I have allied myself with Greg Mannion who understands children's participation as being relationally framed (Mannion, 2007). This relational framing suggests that children's participation is fundamentally influenced by the child–adult relationships driving those practices. In this thesis, I have specifically criticised the way in which many practices working on children's participation still reproduce undemocratic child–adult relationships. I have also promoted ambiguity as a means for making those normative undemocratic child–adult relationships explicit. Moreover, I have stressed the value of ambiguity as a resource for actualising democratic child–adult relationships that value and equally consider the opinions of both adults and children. The ambiguity approach promotes the involvement of children as complex "beings" (James et al., 1998; Qvortrup, 1991) who are knowledgeable (Rancière, 1991[1987]), capable and responsible (Wyness et al., 2004). This also means that the *ambiguity approach* can, over time, stop the reproduction of undemocratic child–adult power relationships and develop new normative practices in which children's participation in society will be based on democratic child–adult relationships.

Even though working with ambiguity is a complex and daring endeavour, it enables us to penetrate into the micro-politics of human relationships and bring actual change to them. As in relational design, such changes may be small and not appreciable at first sight, but continuous engagement in changing those relationships can make a huge difference in the long run and contribute to reconfiguring normative

child–adult relationships into more democratic ones. In order to achieve these new normative democratic child–adult relationships, both children and adults need to engage in the mutual and ongoing effort of producing new patterns of interaction that transgress and overwrite outdated undemocratic values. Therefore, patience, perseverance, belief, and passion are necessary ingredients for producing new normative democratic practices to democratise children's participation in society.

Thus the *ambiguity approach* has a positive effect on extending and deepening children's emancipation. Recent childhood studies already show how postmodern views on childhood have been implemented in everyday life practices in the context of private environments, e.g. family life (Jans, 2004) but they also point to the need to develop this in semi-public and public environments, e.g. in education and political institutions. The knowledge presented in this thesis will enable practitioners to extend children's emancipation by actualising democratic child–adult relationships in semi-public and public environments.

Implications for Democracy

Democracy is an ongoing project. It is in constant development through its interaction with an ever-changing society. Despite democracy being an established value in many Western countries, many current democratic practices do not (yet) consider all people as citizens—i.e., people with rights and responsibilities to participate in society. Nevertheless, democracy is working on becoming more inclusive. After a long and intense struggle for women's involvement in democracy at the start of the twentieth century, it is now[56] finally time to work on the inclusion of children in democracy. Although children do not (yet) have a formal voice in democracy (i.e. they are not eligible to vote in local, regional or national elections), design can help to advance children's inclusion in democracy by working on the "political" level (Mouffe, 2016) and by organising alternative practices aiding children's participation in society, like the *Public Play* project. In this thesis, I have shown that adult-initiated and adult-facilitated participatory design practices us-

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Children's involvement in democracy started from the end of the twentieth century.

ing the *ambiguity approach* can be a valuable means for "expanding citizens' possibilities for democratic action and critique" (DiSalvo, 2010, p. 1) and expanding *child-citizens'* possibilities for democratic action and critique. Thus adult-initiated participatory design practices can support the development of a "political space" (Sassen, 2005) in which children can participate in society. Moreover, the *ambiguity approach* enables adults to be part of this child-inclusive "political space" (ibid.) whilst respecting and involving children's values, interests, and agendas. In other words, the *ambiguity approach* aids and ensures the child–adult relationships and interactions that drive and frame those "political spaces" (ibid.) building on democratic values. Here I refer back to Paulo Freire's "cultural circles" approach (Freire, 2013[1965]) that also worked on citizen's participation on two levels: outcome and process. Firstly, there was the democratic outcome: the cultural circles (ibid.) helped the oppressed to become free "subjects" (Freire, 2000[1968]) by developing "critical consciousness" (ibid.) about their situation in society—the unequal power relationships they were part of—and activating them to create change. Secondly, there was the democratic process: the "cultural circles" (Freire, 2013[1965]) also worked on reducing unequal power relationships in the way in which the oppressed worked on their freedom by transgressing normative undemocratic power relationships between *educator* and *learners*; undemocratic power relationships that are similar to the undemocratic power relationships between the *adult designer/facilitator* and the *child participants* (in the context of participatory design with children) and to the undemocratic power relationships between the adult and children (in the context of adult-initiated and/or adult-facilitated practices concerning children's participation in society). Although Freire dealt with transgressing unequal power relationships between different adult social groups, the *ambiguity approach* proposed here focuses on transgressing unequal power relationships between adults and children[57]. Thus the *ambiguity approach*, enabling the reconfiguration and democratisation of child–adult relationships, contributes to the democratisation of democracy by making it more inclusive for *all* generations.

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The focus is on unequal power relationships between adults and children but as I have mentioned earlier the ambiguity approach may also be significant for practices dealing with unequal power relationships between adults.

The *ambiguity approach* enables the child *particip-actors* to appropriate dominant structures (de Certeau, 1984). However, the approach also stresses the need to show mutual respect to the different meanings and existence amongst all actors involved (Mouffe, 2000). Thus the *ambiguity approach* enables the development of a pluralistic democracy that acknowledges the diversity of publics and the valuable role these publics play in *designing* human coexistence.

Furthermore, the *ambiguity approach* points out the positive role that adults can play in children's inclusion in democracy. Jacques Rancière has already indicated that there is no point in eliminating the teacher as a way of solving the problem of inequality (Rancière, 1991[1987]). Similarly, Roger Hart has pointed out the importance of the adult's role in practices that concern children's participation in society. Hart advocated the need for animators, street workers, or any adult who is able to respond to the subtle indicators of children's initiatives. He argued that the goal is not to get children to act completely on their own, but instead to reach a point at which children dare to take their own initiatives and ask adults for help. Hart added that adult–child collaborations assume that children trust adults; that they know that adults respect their opinions and will not disregard them (Hart, 1992). I agree that eliminating adults in practices concerning children's participation in society is foremost escapism from the actual problem and does not contribute to democratising children's participation in society. Whereas the above-mentioned studies have argued for redefining adults' role, the *ambiguity approach* offers concrete ideas and methods for putting a more democratic adult behaviour into practice. And stressing the importance of democratisation through mutual engagement, the *ambiguity approach* also offers ideas and methods for putting a more democratic child behaviour into practice.

Finally, I want to add that the *ambiguity approach* produces a 'child-inclusive political space' which can be read as *spaces* in which children and adults learn to act and interact democratically. Thus the *ambiguity approach* supports adults' and children's civic learning so that both adults and children learn to practise their citizen role in society democratically. This civic learning proclaims the involvement of a diversity of meanings respectfully and responsibly. It mainly consists of the citizen-learners, including the child-citizen-learners, taking a critical look at their current behaviour and producing new or reconfigured actions and interactions that, in turn, produce more democratic relationships. However, in order to advance the democratic project

further, this democratic learning should be part of an overall learning process in which both children and adults learn to interact with each other democratically in everyday life.

7.3
Limitations of My Study

I see less value in using the *ambiguity approach* in design contexts that aim for short-term efficiency and/or profit-orientated processes. The *ambiguity approach* is foremost concerned with advancing democratic values in social practices and societal development. This means that the *ambiguity approach* prioritises the well-being of all humans above other gains, and this irrespective of age, gender, race, religion, etc. However, this does not mean that there is no potential for working with ambiguity in institutions and industries. On the contrary, they as well might want to work on democratising their practices by democratising their processes and involving a diversity of actors in them. However, the *ambiguity approach* presented in this thesis may need some adjustments when working in contexts in which outcomes have to meet certain expectations. Such reconfigurations of the current *ambiguity approach* require additional fieldwork and point to future research possibilities.

In my research project, I have focused on adult-initiated practices working on children's participation in society. This thesis does not deal with child-initiated practices working on children's participation in society. However, given the recent emergence and growth of such child-initiated[58] practices—I refer here to the new youth generation that is actively participating in public debate and activities concerned with climate change and the future of our planet—it would be interesting to explore further the meaning of the *ambiguity approach* for child-initiated practices working on children's participation in society. Furthermore, I have not addressed these child-initiated practices because at the time I started my research project in 2014, nobody could have imagined that Greta Thunberg at the age of fifteen would start her climate change activism in August 2018. Nobody could have imagined

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As I have explained in the "thesis glossary" in the introduction chapter, I use the word *child* to cover all ages up to the age of 18.

that the school climate strikes of this then fifteen-year-old girl would inspire many other young students all over the world to engage in similar protests, the well-known *Fridays for Future* actions. If I had started my PhD in 2017 or 2018, this thesis would certainly have looked different. Nevertheless, there is a future before us in which the meanings of my research question can be further explored in the context of child-initiated practices as well as in the context of practices that are initiated by both children and adults.

Furthermore, when aiming to actualise practices working on children's participation in society as a democratic process, we need to acknowledge that there is always an initiating party—be it adults alone, children alone, or a mixture of children and adults. When such processes are initiated by one social group only (adults or children), we need to acknowledge that the initiating party will always have a part in defining the given workshop structure. This remark gives rise to new questions (e.g. to what extent can such an initial workshop structure be reconfigured?) and calls for further research.

A third limitation concerns the time duration of the *Public Play* workshops. My research results have indicated that the actualisation of a democratic process through ambiguity requires long-term engagement, which points to the need for organising participatory design workshops over a long time span in which each session includes a sufficient amount of time. However, the duration of the *Public Play* workshops was no more than five consecutive sessions, each session including seven hours per day (5×7 hours in 1 week); four sessions spread over four weeks, each session including seven hours per day (4×7 hours over 4 weeks); and three sessions spread over three weeks, each session including 2 hours per day (3×2 hours over 3 weeks). Thus, in order to explore the effects of time even more, I would have needed to organise new workshops that run over longer periods indicating additional fieldwork and future research. Another question deals with the pragmatics of how to organise such long-term projects.

Finally, I want to point out some limitations related to my research methodology. In this thesis, I have limited my research approach to an explorative inquiry. It would also be interesting to research the questions in a more systematic way, for instance, by setting up a comparative study between a first case that uses the *ambiguity approach* and a second case that uses a conventional participatory design approach. This comparative inquiry would allow the systematic analysis of differences

between both approaches (e.g. differences in number, in kind, etc.). Another possibility points to experimentation (e.g. "constructive design research" in the "laboratory"; Koskinen et al., 2011). In this type of experimentation-based research approach, I would be able to learn more about a specific component by isolating it and systematically exposing it to different conditions (e.g. how children from different age groups work with a certain material).

In addition, despite the many advantages of the 3-step methodology (workshops—memorising—analysis), it also has its weak points that require further development. In retrospect, I should have added a fourth step in which I evaluated my research results. This last step would include another fieldwork phase in which I would test and fine-tune my research results. The fact that I did not test or check my research findings highlights a current weakness in my methodology and outcome, which I want to explore further and develop in future research. Developing this additional step will introduce new practical questions (e.g. how to organise this fieldwork, which methods to develop, etc.) but foremost, it will raise ethical questions about how we can involve children in such an evaluation.

7.4
Directions for Future Research

In chapter 5, I have demonstrated how ambiguity can be a resource for actualising participatory design practices with children as a democratic process. Although the *Public Play* workshops involved children with a variety of ages, I only briefly pointed out the potential influence of their age (see: surrounding components: participant group, in 5.2). In this thesis, I have not explored those age differences any further despite existing studies on children's age, cognitive development, and interpretation. For instance, scholars have pointed to the emergence of ambiguity due to the lack of context from which the interpreters can generate a single meaning. Previous studies on children's cognitive development have demonstrated that children's awareness grows with age. This means that children who age and mature develop a *better* or more complex understanding of their surrounding world and consider a diversity of contexts. However, other childhood studies have indicated that children's thoughts and behaviour become more normative as they become more

mature. All these studies indicate the need to continue exploring the role of children's age and maturity in relation to awakening ambiguity and negotiating the forthcoming meanings in the specific context of this thesis. Additional fieldwork is needed for exploring the role of children's age in relation to working with ambiguity.

Similarly, in the *Public Play* workshops, I have involved children with a diversity of backgrounds. Although I have pointed out the benefits of a diversity-rich participant group for awakening the conscious experience of ambiguity (see: surrounding components: participants' internal relationships, in 5.2), I have not further unpacked what this diversity means in relation to the complexity of power relationships and the actualisation of a democratic process (e.g. intersectionality). Additional fieldwork is needed to explore further the role of children's background in relation to developing equal power relationships and a democratic process.

In my fieldwork, I have organised participatory design workshops with a participant group consisting of children only. My research focused on actualising democratic relationships between the initiating adult designer and the participating children. Future research can further explore what my research questions mean when working with an intergenerational participant group consisting of children and adults. It would be interesting to inquire further into the complexities that arise when a third (or a fourth, a fifth, etc.) adult workshop actor category joins the collaborative process, i.e., explore what kind of power relationships need to be reconfigured in those situations or which other newly emerged aspects can be of influence.

In addition, in this thesis, I have briefly touched upon the role of other (adult) workshop actors in the meta-process of actualising a democratic process. These 'other (adult) workshop actors' constitute part of the surrounding components (i.e. context) and can support or counteract the actualisation of a democratic process, as for instance when the teacher disturbed the group discussion in the workshop situation described in #5 *A Disturbing Voice*. Additional fieldwork and further research could shed more light on their influence and provide in-depth understanding.

Similarly, it would be interesting to continue exploring the role of ambiguity in developing democratic relationships between the child participants themselves. Obviously, when the dominating power (of the designer) becomes distributed and weakened, there is a big chance that new power hierarchies will arise, i.e. new power hierarchies amongst

the child participants themselves. Additional fieldwork and research can further unpack the role of ambiguity in this process and explore e.g. issues of intersectionality in it.

Scholars have pointed to the way in which ambiguity, vagueness, and unintelligibility can be used as a resource for concentrating power in an individual or a group instead of distributing power. In other words, ambiguity can also be used as a resource for manipulating actions and obscuring information, thereby creating a "power-over" relationship (Pitkin, 1972; Lukes, 2005[1974]). In this thesis, I have briefly touched upon these as situations to be avoided, for instance, when the child participants created a "power-over" (ibid.) position in #8 *The Car Wrestlers* (i.e. disambiguation in favour of oneself) or when the facilitator created a "power-over" (ibid.) position in #2 *Interviewing the Parking Meter* (i.e. disambiguation in favour of oneself). Such "power-over" (ibid.) situations open up yet another complexity that I have not explored further in this thesis.

In this thesis, I have investigated how ambiguity can be a resource for actualising a democratic process in the specific context of participatory design practices with children, which is just one context of practices working on children's participation. Although there is no doubt that my results can be meaningful for practices working on children's participation in other contexts and fields, future research needs to be done in order to reveal the particularities of how a democratic process can be actualised through ambiguity in those other contexts.

7.5
Closing Words

This thesis has built on my ambition to continue developing the democratic project by improving children's participation in society. On the basis of reviewing existing literature and practices related to children's participation in society, I have criticised the way in which many of these practices working on children's participation in society unilaterally focus on realising a democratic outcome whilst falling short in actualising a democratic process. As a response, my research proposed the *ambiguity approach* whilst highlighting the designer's role in this approach. The *ambiguity approach* foregrounds ambiguity as a resource for actualising practices for children's participation as a democratic process—i.e.,

a process that involves all actors in a free, equal, and just way. The approach reveals differences between the diversity of actors involved and *uses* those differences to actualise a pluralistic democratic process. With my *ambiguity approach*, I have invited designers to open up to reconsidering how they can deal with a diversity of expected and unexpected meanings suggested by the diversity of individual children with whom they work. I have suggested that designers are better off in reading those *conflicting* differences as constructive starting points for developing more democratic child–adult relationships. I have also shown that the democratic quality of their joint process actualisation depends on the way in which the actors negotiate the forthcoming diversity of meanings and whether they actualise the process responsibly.

For a participatory design with children context, the *ambiguity approach* helps to make the shift from a typical process defined by a single person, the adult designer only, towards a process in which *all* the workshop actors, despite their differences in age, are democratically involved. This means that the child as *particip-actor* plays a protagonist role in the actualisation of the process; s/he can express her/his opinion about the process actualisation freely; s/he is equally involved in decision-making regarding the process actualisation; and s/he takes a responsible share in producing just (inter)actions.

For the context of children's participation in society, the *ambiguity approach* helps to involve children as complex beings (James et al., 1998; Qvortrup, 1991) who are knowledgeable (Rancière, 1991[1987]), capable and responsible (Wyness et al., 2004). This also means that the *ambiguity approach* can, over time, help to overcome the reproduction of undemocratic child–adult power relationships and develop new normative cultural practices in which children's participation in society is based on democratic child–adult relationships. This democratisation of child–adult relationships will form the basis for advancing the democratic project at large.

For the context of democracy, the *ambiguity approach* supports the development of child-inclusive "political spaces" (Sassen, 2005) in which both adults and children can learn to practise actualising democratic child–adult relationships. These real-life experiences contribute to adults' and children's civic learning in democracy.

With this thesis, I have taken the first step towards working on the democratisation of child–adult relationships in participatory design practices with children. I acknowledge that my contribution requires more

work in order to extend and deepen certain aspects. I am also aware that I have made a quite radical suggestion. Firstly, democratising child–adult relationships requires adults making a shift in respecting children's input, viewing their input from different perspectives, and embracing the alternative languages they use. Adults need to engage with what children give them in contrast to only working with what adults have in mind. Secondly, developing more democratic child–adult relationships happens gradually and over time; they require continuous involvement and repetitive change-making. However, the current normative view on time proclaims goal-orientated efficiency. In this sense, my proposal does not really fit in with the present neoliberal spirit of the times. Or, put differently, the *ambiguity approach* encourages us to develop a critical distance from conventional approaches whilst challenging us to develop improving alternatives.

Finally, the *universal* character of ambiguity points to the rich potential of the *ambiguity approach* for democratising practices in other fields besides participatory design, hence multiplying the democratising practices and working on the inclusion of children in democracy on a large scale. Having said this, the inclusion of children in democracy needs to be worked on through an overall engagement of many different kinds of practice, and in them, the *ambiguity approach* can play a significant role.

I hope that my study has inspired and convinced you to evaluate critically how you address and involve children in your work and above all to explore the rich potentials of ambiguity for producing alternative, more democratic child–adult relationships in your practice. I warmly invite you to be part of determining the new normal!

Annelies Vaneycken, 2020

Under de senaste 30 åren har intresset för att främja barns delaktighet i samhället ökat, där resultaten av dessa metoder eventuellt har bidragit till mer demokratiska utfall. I denna avhandling fokuserar jag på den demokratiska karaktären och potentialen hos den drivande *processen* för sådana metoder och deras utfall, som hittills mestadels har förbisetts. Min undersökning ligger inom ramen för deltagande design med barn och utforskar hur vuxeninitierade praktiker som arbetar med barns delaktighet i samhället, förutom att enbart resultera i ett demokratiskt utfall, också kan genomföras som en demokratisk process. Här förstås en *demokratisk process* som en process baserad på interaktionen barn–vuxen, som respekterar grundläggande demokratiska värderingar såsom frihet, jämlikhet och rättvisa.

Min designpraktik, i detta fall projektet *Public Play*, utgjorde kärnan i mitt fältarbete och empiriska material. *Public Play* var en serie med fem designworkshoppar där olika barngrupper och jag arbetade tillsammans med barns delaktighet i det offentliga rummet i Belgien och Sverige. Jag utvecklade en ny forskningsmetod, *Forskning genom designinterventioner*, som gjorde det möjligt för mig att utforska "öppenhet" (Eco, 1989[1962]) och studera dess effekter genom att analysera några viktiga workshopsituationer genom ett teoretiskt ramverk utvecklat från Gaver et al. (2003).

Avhandlingen visar hur mångtydighet – kvaliteten att vara öppen för flera betydelsers samtidiga närvaro – kan vara en resurs för att genomföra en pluralistisk demokratisk process. Utforskningen av mångtydighet visade att både den vuxna designern och deltagande barn hade möjlighet att bidra med åsikter när processens innehåll, roller och agenda definierades, och att genomförandet av en demokratisk process också kräver särskilda sätt för att förhandla och uppfylla ansvar. Avhandlingen belyser också den roll som *deltagaraktör* som barnen kan spela, liksom nya roller för handledaren när man designar *för* och *med* mångtydighet. Vidare syftar den *mångtydighetsmetod* som utvecklats i denna undersökning till att hjälpa designers att arbeta med mångtydighet på ett mer kontrollerat sätt samt ge dem en strategisk ram för detta arbete utifrån principer som lära genom att göra, lära över tid och lära från jämlikar.

I min avhandling argumenterar jag för mångtydighet – kvaliteten att vara öppen för flera betydelsers samtidiga närvaro – som en resurs i genomförandet av en demokratisk process för deltagande designpraktiker med barn. I och genom min avhandling vill jag lyfta fram "designa *för* mångtydighet", som pekar på värdet av mångtydighet för att genomföra en demokratisk process i praktiker där designers och barn arbetar tillsammans på ett delaktigt sätt, och "designa *med* mångtydighet", som pekar på *mångtydighetsmetoden*. Denna metod kom till för att hjälpa designers att på ett strategiskt sätt arbeta med komplexiteten och svårigheterna med mångtydighet i deras mål att genomföra en demokratisk process. "Designa *för* mångtydighet" kan förstås som ett teoretiskt ramverk, och "designa *med* mångtydighet" erbjuder det konkreta stödet för att detta ska kunna ske.

Introduktion

Forskningsprojektet ramades in av följande tre huvudsakliga kontexter: min egen designpraktik inom "relationell design" (Blauvelt, 2008), "design för demokrati" (DiSalvo, 2010) samt metoder för "deltagande design" (Simonsen & Robertson, 2012); min doktorandtjänst vid HDK-Valand – Högskolan för konst och design vid Göteborgs universitet i Sverige, och dess masterprogram i Child Culture Design (som är ett designbaserat masterprogram som samlar en blandning av tvärvetenskapliga studenter som undersöker innovativa sätt att designa för och/eller med barn); samt mitt engagemang inom projektet TRADERS[1] (ett EU-finansierat forskningsprojekt vars fokus var att utbilda konst- och designforskare i delaktighet i det offentliga rummet, där jag utforskade *lek* som en metod för att arbeta med frågor om det offentliga rummet tillsammans med barn).

Mitt forskningsprojekt kom till i en tid då det å ena sidan gjordes ökade ansträngningar för en mer inkluderande demokrati, men å andra sidan ägde en demokratikris rum och många forskare pekade på svårigheten att arbeta med former av direktdemokrati (d.v.s. Parvin, 2017) inom den nuvarande komplexa kontexten för vår globala värld. Trots detta ser vi emellertid en växande trend med projekt som använder mer

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1
För mer information om TRADERS, se http://tr-aders.eu

direkta former av medborgardelaktighet, det vill säga, både bottom-up-
och top-down-organiserade praktiker.

När man tittar på situationen för barns delaktighet har de – under
mycket lång tid och i formell mening – uteslutits från egentlig delaktig-
het i samhället. Från andra hälften av 1900-talet har emellertid barns
aktiva engagemang i samhället främjats av till exempel postmoderna
idéer om barndom och FN:s barnkonvention (UNCROC, 1989). Detta
resulterade i sin tur i att praktiker från flera kunskapsfält växte fram för
att arbeta med barns delaktighet i samhället, varav deltagande design
med barn är ett. Dessa praktiker är viktiga eftersom de för närvarande
är det enda sättet för barn att både ha något att säga till om i samhälls-
utvecklingen och att delta i demokratin. De är av särskild betydelse ef-
tersom barn – det vill säga, personer under 18 år – är exkluderade från
formella sätt att delta i samhället, såsom val och folkomröstningar till
exempel, enbart på grund av deras ålder.

Huvudfokus för min forskning bygger på min iakttagelse att många
deltagande designpraktiker som arbetar med barns delaktighet i sam-
hället är begränsade när det gäller genomförandet av en demokratisk
process. För att vara mer exakt har jag observerat att de främst arbetar
med demokrati genom *utfallen* – det vill säga, barns delaktighet i en viss
del av samhället, t.ex. det offentliga rummet – men brister i att kännas
vid och arbeta med barns delaktighet i *processen* som leder till detta
utfall. Här vill jag peka på behovet av att även genomföra deltagande
designpraktiker som en demokratisk process där man lever upp till vär-
deringar om frihet, jämlikhet och rättvisa gällande samtliga deltagare
– såväl barn som vuxna.

Paulo Freires arbete handlade om dubbel delaktighet av ett lik-
nande slag, där hans metod riktade in sig på att befria förtryckta med-
borgare från de härskande politiska strukturerna som styrde deras vardag.
Denna befrielse uppnåddes genom de förtryckta medborgarnas aktiva
engagemang. Freires specifika metod, kallad "kulturcirklar" (Freire,
2013[1965]), gjorde det möjligt för medborgare att lära sig att bli ett
frigjort "subjekt" (Freire, 2000[1968]), som är kritiskt medvetet och
aktivt deltar i samhällsutvecklingen. Samtidigt riktade Freires strategi
för att producera ett sådant frigjort "subjekt" (ibid.) också in sig på att
befria eleven från de förtryckande utbildningsstrukturerna som finns i de
flesta konventionella pedagogiska sammanhangen. På en sådan mikropo-
litisk nivå handlar det om att utveckla en frigjord elev som aktivt deltar i
sin inlärningsprocess; som ett led i deras aktiva delaktighet i samhället.

Mitt fältarbete bestod av att organisera och främja deltagande designworkshoppar med barn. I projektet *Public Play* anordnade jag fem workshoppar där jag (som designforskare) avsåg att stödja barns delaktighet i frågor relaterade till det offentliga rummet (d.v.s. att arbeta med ett *demokratiskt utfall*), och samtidigt i deras delaktighet i workshopprocessen (d.v.s. att arbeta med en *demokratisk process*). Genom att bygga vidare på Umberto Eco (1989[1962]) samt William Gaver och hans kollegor (2003) undersökte jag hur öppenhet i min deltagande designmetod kunde vara värdefull för att skapa en mångfald av betydelser avseende workshopstrukturen, och för att pröva effekterna av att uppleva en mångtydig workshopstruktur mot bakgrund av barns demokratiska delaktighet i workshopprocessen. "Hur kan mångtydighet vara en resurs i genomförandet av en demokratisk process för deltagande designpraktiker med barn?" blev den främsta, drivande forskningsfrågan, och för att arbeta med denna fråga delade jag upp den i följande delfrågor:

1. Vilka former av mångtydighet förekommer i deltagande designpraktiker med barn; och vilken roll kan de spela för att genomföra dessa praktiker som en demokratisk process?

2. Hur kan designers arbeta med mångtydighet när de avser genomföra deltagande designpraktiker med barn som en demokratisk process?

Det inledande kapitlet innehåller också: en översikt av målgrupperna, en beskrivning av hur avhandlingen bidrar till den befintliga forskningen, avhandlingens struktur, en ordlista med förtydligande av nyckeltermer samt förklaringar till användningen av språk och bilder i avhandlingen.

Barns delaktighet och demokratiska organ

Det andra kapitlet sätter min forskning i sitt sammanhang genom att granska viktiga studier och praktiker som rör barns delaktighet som ett medel för demokratisk praktik, deltagande design med barn samt mångtydighet.

Barns delaktighet i samhället som ett medel för demokratisk praktik

Även om demokrati är väl etablerat i många europeiska länder står dessa nationer också inför paradoxala utmaningar. Å ena sidan finns det insatser som syftar till att göra demokratin mer inkluderande genom att öppna för nya framväxande allmänheter, t.ex. barn. Å andra sidan misslyckas den nuvarande krisen inom demokratin med att realisera värderingar om frihet, jämlikhet och rättvisa i kravet att demokratisera demokratin. Utöver detta har utvecklingen under de senaste åren också visat ökat intresse för och tillväxt av praktiker för deltagardemokrati, som syftar till att involvera medborgarnas röster på ett mer direkt sätt.

Sedan 1990-talet har barns delaktigthet i samhället fått ytterligare fokus, vilket har inneburit en stor förbättring för barns välbefinnande och utvecklingen av samhället i stort. Förutom dessa viktiga förändringar finns det också röster som diskuterar och strävar efter att utveckla barns delaktighet i samhället ytterligare.

Detta forskningsprojekt är en av dessa röster, eftersom det syftar till att främja det demokratiska projektet genom att förbättra barns delaktighet i demokratiska processer. I det här fallet genom att demokratisera barn–vuxen-relationer inom ramen för de här processerna.

Deltagande design med barn

Deltagande design erbjuder ett bra sammanhang för att undersöka mikropolitiska förutsättningar för processerna som nämns ovan, eftersom det i stället för att enbart fokusera på utformningen av ett resultat har ett särskilt intresse i hur en mångfald aktörer kan arbeta i samverkan. Med andra ord, medan majoriteten av de konventionella design-metoderna fokuserar på att designa *vad*, fokuserar deltagande design på att designa *hur*. Utöver detta har den skandinaviska traditionen för deltagande design ett speciellt intresse av att realisera värden som demokrati, självbestämmande och arbete/livskvalitet[2] (Ehn, 1990).

2
Medan de tidiga formerna av deltagande design fokuserade på att förbättra kvaliteten på arbetsgolvet har nyare utvecklingsformer också handlat om en bredare frågeställning och liv i allmänhet.

Deltaktighet i design, eller *participatory design* som det heter internationellt, utvecklades på 1970- och 1980-talet med ambitionen att producera mer hållbar design. Från 1990-talet och framåt har mer och mer uppmärksamhet ägnats åt att också involvera barn i designprocesser. Deltagande designmetoder som involverar barn har haft stor betydelse för barns självbestämmande och delaktighet i samhället. Metodutvecklingen berör också i hög grad hanteringen av maktfrågor. Här har *extern makt* behandlats i större utsträckning än frågor om *intern makt*. Följaktligen fokuserar detta forskningsprojekt på de *inre* maktfrågorna.

Mångtydighet

Mångtydighet är kvaliteten att vara öppen för flera betydelsers samtidiga närvaro (Lexico.com, 2019). I allmänhet undviker vår västerländska kultur mångtydighet; vi föredrar tydlighet och effektivitet framför osäkerhet och kaos. Globaliseringen i stort och den pågående demokratiska krisen i det globala nord skapar osäkerhet i våra liv, med följd att vi söker efter stadga, och säkerhet och kontroll. I motsats till en sådan mentalitet – inklusive studier som betraktar mångtydighet som ett problem som ska undvikas eller reduceras – framhåller en mindre del av studierna mångtydighetens konstruktiva möjligheter. Konsten har i själva verket undersökt mångtydighetens begreppsmässiga och estetiska kvaliteter under mycket lång tid. Under 1960-talet började många konstnärer använda mångtydighet som ett sätt att aktivt involvera publiken i skapandet av konstverket, där genomförda studier betonade mångtydighetens självbestämmande effekt för publiken. Till skillnad från konst har design – som vanligtvis syftar till funktionalitet och tydlighet – haft en återhållsam inställning till mångtydighet. Denna inställning har emellertid förändrats genom arbetet med industridesign för hemmet och design för offentliga miljöer, där det blev meningsfullt att flera betydelser samexisterade, vilket följaktligen öppnade för möjligheterna att upptäcka potentialen för mångtydighet inom design.

Fördelen med mångtydighet i design har framhävts av William Gaver och hans kollegor. I en studie från 2003 har de visat att mångtydighet möjliggör användarens personliga medverkan vid tolkning och användning av den designade artefakten eller det designade systemet, och även att mångtydighet kan bidra till att designers blir medvetna om andra sätt deras design kan tolkas och användas. Gaver et al. (2003) klargjorde de positiva effekterna av mångtydighet genom att

identifiera följande tre breda kategorier av mångtydighet: mångtydighet i information, mångtydighet i relationer och mångtydighet i kontext.

- Mångtydighet i information: mångtydighet uppstår på grund av osäkerhet orsakad av den designade artefakten själv – det vill säga, när användaren tolkar informationen som förmedlas av den designade artefakten själv.
- Mångtydighet i relationer: mångtydighet uppstår på grund av osäkerhet orsakad av användarens relation till den designade artefakten – det vill säga, när användaren tolkar sin egen relation till den designade artefakten.
- Mångtydighet i kontext: mångtydighet uppstår på grund av osäkerhet orsakad av det sammanhang eller den diskurs inom vilken den designade artefakten förstås – det vill säga, när användaren tolkar den designade artefakten enligt vissa kontexter/diskurser.

Forskning genom "designinterventioner"[3]

Genom att bygga vidare på "research through design" (Frayling, 1993), "design anthropology" (Gunn et al., 2013; Smith, 2016) och "design interventions" (Halse & Boffi, 2016) utvecklade jag metoden *research through design-interventions* för att kunna arbeta med mina forskningsfrågor. Denna metod gjorde det möjligt för mig att ta itu med "phenomena that are not very coherent, barely possible, almost unthinkable and consistently under-specified because they are still in the process of being conceptually and physically articulated" (Halse & Boffi, 2016, s. 89), samtidigt som jag som forskare kan påverka studien genom att göra "designinterventioner" (Halse & Boffi, 2016). Den här forskningsmetoden gjorde det möjligt för mig att använda min designpraktik för att producera nya insikter om deltagande design med barn, barns delaktighet i samhället och i demokratin – samtidigt som det möjliggjorde för mig att tillämpa dessa innovativa insikter i praktiken.

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[3] Begreppet "designinterventioner" myntades av Joachim Halse och Laura Boffi för att förstå designinterventioner (Halse & Boffi, 2016), som en form av undersökning som möjliggör för forskare att hantera "fenomen som inte är särskilt koherenta, knappt möjliga, nästan otänkbara och konsekvent underspecificerade eftersom de fortfarande befinner sig i processen att konceptuellt och fysiskt artikuleras" (Halse & Boffi, 2016, s. 89).

Metoden *research through design-interventions* inkluderar en tre-stegsmetodologi för forskning, workshop – memorering – analys, som innehåller specifika metoder för att utföra fältarbete, konstruera det empiriska materialet och analysera detta material.

- Metoden *workshop* består av att genomföra min designpraktik – det vill säga, att utforma och genomföra deltagande designworkshop-par med barn. *Workshopparna* gjorde det möjligt för mig att interve-nera (med öppenhet) i mitt fältarbete samtidigt som jag studerade effekterna av denna "designintervention" (Halse & Boffi, 2016).

- Metoden *memorering* består av att memorera relevanta workshop-situationer som ett sätt att samla etnografisk och autoetnografisk information, och komplettera dessa memoreringar med ytterligare information från andra källor, såsom observationer och fältanteck-ningar från externa observatörer och olika dokumentationskällor. Insamlingen av sådant material från flera olika källor gjorde det möjligt för mig att fånga workshopdeltagarnas reaktioner (inklusive mina egna), som respons på den öppenhet som jag (som designer/handledare) införde genom min specifika deltagande designmetod, och att konstruera ett empiriskt material (*skriftliga memoreringar*), samtidigt som forskningens trovärdighet och giltighet garanteras.

- Metoden *analys* består av att systematiskt analysera det empiriska materialet genom ett analytiskt ramverk baserat på "mångtydig-hetskategorisering" (Gaver et al., 2003), kompletterat med några viktiga begrepp som har framkommit genom iterativa cykler för att analysera materialet.

Metoden *research through design-interventions* möjliggör en nära och djup-gående avläsning av fältarbetet inom vilken forskaren spelar en aktiv roll. Denna närhet innebär emellertid också utmaningar där forskaren måste skapa viss distans till sin designer-/handledarroll i forskningen för att att kunna ta sig an forskningsfrågorna. För att hantera dessa utmaningar konfigurerade jag om etnografiska forskningsmetoder till lämpliga "red-skap" (Lury & Wakeford, 2012). Exempel på detta var *observation med flera olika källor*, som gjorde det möjligt för mig att komplettera mina personliga observationer och erfarenheter med observationer och er-farenheter från andra inblandade aktörer (t.ex. observatörer), och de *skriftliga memoreringarna* som gjorde det möjligt för mig att konstruera ett empiriskt material utifrån olika informationskällor.

Public Play och dess analys

I projektet *Public Play* arbetade jag med barns delaktighet i frågor om det offentliga rummet genom deltagande design. Detta projekt pågick i ungefär två år (2014–2016) och bestod av fem workshoppar: *Public Borders, Playful Rules, Playful Monstration, Recipes for unControl* och *Dialogue Shapers*. I dessa fem workshoppar arbetade jag med olika partners; olika konstorganisationer och -institutioner, en gymnasieskola, personer som arbetar med ungdomar, kulturavdelningen i Göteborgs Stad, politiker i Ghent samt en ideell organisation som arbetar med långsam mobilitet. Jag arbetade med olika grupper av barn, de flesta mellan sex och tolv år. Jag arbetade också med en grupp 16-åriga ungdomar. De fem workshopparna pågick i olika tidsintervaller, allt från en endagsworkshop till en veckolång workshop. Jag organiserade de flesta workshopparna i Belgien, eftersom jag därmed kunde prata med barnen på ett gemensamt modersmål. I Göteborg arbetade jag med unga vuxna från en internationell skola där engelska är huvudspråket. I tabell 4.1, i inledningen av kapitel 4, ger jag en allmän beskrivning av skillnaderna mellan dessa fem workshoppar och hur dessa skillnader, i olika sammanhang (plats, deltagargrupp, partners, tid etc.) tillät mig att utforska öppenhet under olika omständigheter – och där jag analyserade mångtydighetens roll mot bakgrund av mina forskningsfrågor.

Detta fjärde kapitel beskriver huvudsakligen fältarbetet, men innehåller också en presentation av det empiriska materialet och dess analys.

Fältarbetet undersöker tre utvalda workshoppar i projektet *Public Play*. För var och en av dessa workshoppar förklarar jag deras inramning och utformning samt ägnar särskild uppmärksamhet åt att beskriva hur jag (som designforskare) införde öppenhet i min deltagande designmetod. Jag ger också en kort överblick över den individuella workshopprocessen för att kontextualisera de *skriftliga memoreringarna*.

Det empiriska materialet består av åtta *skriftliga memoreringar*. Dessa innehåller mångskiktade beskrivningar av specifika workshopsituationer, och där frågor såsom öppenhet, mångtydighet, förhandlingar och ansvar lyfts fram.

Analysen av de *skriftliga memoreringarna* fokuserar på att systematiskt reda ut mångtydighetens roll för att genomföra en demokratisk process, det vill säga, hur workshopaktörerna upplever en mångtydig workshopstruktur och hur de reagerar på denna upplevelse, hur de lyckas realisera mångfalden av betydelser och hur de, bland annat, förhandlar om mångfalden av betydelser.

**Mångtydighet som resurs för att genomföra
en demokratisk process**

I avhandlingens femte kapitel svarar jag på min första forskningsfråga:
"Vilka former av mångtydighet är i omlopp i deltagande designpraktiker
med barn; och vilken roll kan de spela för att genomföra dessa praktiker
som en demokratisk process?"

Mina forskningsresultat visar att mångtydighet kan vara en re-
surs för att genomföra en demokratisk process och att de tre olika
"formerna av mångtydighet" (Gaver wet al., 2003) har olika effekter
på den demokratiska processen. Detta kan beskrivas mer detaljerat
enligt följande:

- "Mångtydighet i information" (ibid.) gör det möjligt för worksho-
  paktörerna att genomföra en demokratisk process där innehållet å
  ena sidan bygger på hur workshopaktörernas jämlika inblandning
  i att bestämma hur mångfalden av betydelser angående workshop-
  pens uppdrag, material och inriktningar genomförs, och å andra
  sidan på hur workshopaktörerna fullgör sitt ansvar.
- "Mångtydighet i relation" (ibid.) gör det möjligt för worksho-
  paktörerna att genomföra en demokratisk process där rollerna
  å ena sidan bygger på hur workshopaktörernas jämlika inbland-
  ning i att bestämma hur mångfalden av betydelser beträffande
  workshopaktörernas roller genomförs, och å andra sidan på hur
  workshopaktörerna fullgör sitt ansvar.
- "Mångtydighet i kontext" (ibid.) gör det möjligt för workshopak-
  törerna att genomföra en demokratisk process där agendorna å
  ena sidan baseras på hur workshopaktörernas jämlika inbland-
  ning i att bestämma hur mångfalden av betydelser beträffande
  workshoppens mål genomförs, och å andra sidan på hur worksho-
  paktörerna fullgör sitt ansvar.

Mina resultat visar emellertid också att mångtydighet ensamt inte är
tillräckligt för att genomföra en demokratisk process och att genom-
förandet av en demokratisk process beror på om workshopaktörerna
uppfyller följande tre krav:

1 *Den medvetna upplevelsen och användningen av mångtydighet* –
   Detta innebär att mångfalden av betydelser måste göras explicit.
   Dessutom kan mångtydighet också orsaka osäkerhet, som måste
   elimineras genom att göra mångtydigheten *användbar*. Utöver
   detta lärde jag mig att en halvöppen workshopstruktur är den

bästa förutsättningen för att workshopaktörerna ska uppleva en mångtydig workshopstruktur som användbar.

2   *En jämlik involvering i förhandlingen om mångfalden av betydelser* – Från min analys identifierade jag tre former av förhandling som har en positiv effekt på genomförandet av en demokratisk process.

- I *samexisterande betydelser* kan alla betydelser genomföras samtidigt utan hinder.
- I *motstridiga betydelser som inte kräver ett* val orsakar mångfalden av betydelser konflikt; men workshopaktörerna lyckas ändå genomföra de olika betydelserna i processen genom *alternerande tid* eller *gruppindelning*.
- I *motstridiga betydelser som inte kräver ett val med jämlikt beslutsfattande* orsakar mångfalden av betydelser konflikt och workshopaktörerna lyckas inte genomföra de olika betydelserna utan måste göra ett val bland alla betydelser. Detta kan ske genom samtliga workshopaktörers jämlika involvering i valen som ska göras, till exempel genom *diskussion, prövning* och/eller *omröstning*.

Medan de två första formerna har en positiv effekt på genomförandet av en pluralistisk demokratisk process, har den tredje formen en positiv effekt på genomförandet av en konsensusbaserad demokratisk process. Det finns också följande fjärde förhandlingsform som inte producerar en demokratisk process:

- I *motstridiga betydelser utan jämlikt beslutsfattande* orsakar mångfalden av betydelser konflikt och workshopaktörerna lyckas inte genomföra de olika betydelserna utan behöver välja mellan alla betydelser. Workshopaktörerna är dock inte lika involverade i beslutsfattandet, jfr *disambiguera till förmån för sig själv* eller *disambiguera till förmån för annan (eller andra)*.

3   *Uppfylla ansvar* – Från min analys lärde jag mig att för att kunna genomföra en demokratisk process måste workshopaktörerna upprätthålla ett trovärdigt och etiskt agerande, såväl som att bidra både till workshopfrågan och till ett demokratiskt utfall. Dessutom identifierade jag två huvudbeteenden:

- I en situation där *ignorerande av ansvar* råder bortser en workshopaktör ifrån ett eller flera av sina ansvar.
- I en situation där *delat ansvarsuppfyllande* råder lyckas alla workshopaktörer –jämlikt involverade i beslutsfattandet av processgenomförandet – fullgöra sina ansvar.

Den första typen av ansvarsbeteende föreföll ha en negativ effekt på genomförandet av en demokratisk process medan den andra typen av ansvarsbeteende hade en positiv effekt på genomförandet av en demokratisk process.

När det gäller de tre kraven som nämns ovan kan det sammanfattas att det första kravet bidrar till demokratins frihetsvärde – där workshopaktörerna har frihet att uttrycka sina tankar/åsikter – och att det andra kravet bidrar till jämlikhet samt det tredje kravet till rättvisa.

På så vis kan vi dra slutsatsen att genomförandet av en demokratisk process beror på möjligheten att medvetet uppleva och använda sig av mångtydighet, att förhandla om mångfalden av betydelser och att uppfylla vissa ansvar. Det finns också ett explicit värde i att genomföra pluralistiska demokratiska processer som representerar mångfalden hos workshopaktörer, det vill säga, deras personliga värderingar, bakgrunder och intressen. Att arbeta med mångtydighet kräver dessutom omsorgsfullt arbete med de produktiva spänningar som kan uppstå genom mångtydighet, och över tiden.

Mina resultat visar också att designern kan spela en aktiv roll i genomförandet av demokratiska processer, och därför, i enlighet med de tre kraven för att genomföra en demokratisk process, identifierade jag följande tre nya designerroller:

1   Stimulera och arbeta med mångtydighet: designern/handledaren kan hjälpa workshopaktörerna att medvetet uppleva en mångtydig workshopstruktur och göra mångfalden av betydelser *användbara* genom att skapa en halvöppen workshopstruktur.
2   Leda förhandlingarna: designern/handledaren kan hjälpa workshopaktörerna att involvera alla workshopaktörer i beslutsfattandet om hur mångfalden av betydelser genomförs i processen på ett jämlikt sätt.
3   Stödja ansvarsuppfyllelse: designern/handledaren kan hjälpa workshopaktörer att fullgöra sina ansvar när processen genomförs.

Utöver detta föregår resultaten också en ny deltagarroll för barn och unga vuxna, som *deltagaraktör*, där barn tydliggörs som kapabla och ansvarsfulla människor som är medvetna om ojämlika maktförhållande barn och vuxna emellan, vilka de är en del men också kan utmana (Freire, 2000[1968]).

Mångtydighetsmetoden

I det sjätte kapitlet presenterar jag *mångtydighetsmetoden* som svar på min andra forskningsfråga: "Hur kan designers arbeta med mångtydighet när de avser genomföra deltagande designpraktiker med barn som en demokratisk process?" Denna metod, som syftar till att hjälpa designers (och andra utövare) att arbeta med mångtydighet på ett kontrollerat och konstruktivt sätt när de avser genomföra sin praktik som en demokratisk process, består av en strategisk ram som bör anpassas efter den särskilda situationen och dess sammanhang.

Detta strategiska ramverk består av fem aspekter som behöver tas om hand av designern:

1 Att stödja workshopaktörerna så att de kultiverar ett tankesätt som bygger på demokratiska värderingar, är ansvarsinriktat och omfattar öppenhet gentemot olikhet. I den första delen av det strategiska ramverket ger jag råd om hur designers kan *tänka* när det gäller att hantera mångfald, konflikt och risktagande på ett konstruktivt sätt.

2 Att skapa ethos som gör det möjligt för workshopaktörerna att hantera de utmaningar som uppstår genom mångtydighet. Här ger jag råd om hur designers kan arbeta med att vårda förtroende, hantera misslyckande, vara tidsdiplomatiska och främja mångfald.

3 Att arbeta med att väcka den medvetna upplevelsen av en mångtydig workshopstruktur och skapa en halvöppen workshopstruktur för att göra mångtydigheten *användbar*. För att förklara hur designers kan balansera öppenhet genom att kontrollera de många samverkande komponenterna som påverkar tolkningen av workshopstrukturen (komponenterna i workshopstrukturen, de omgivande komponenterna och ansvarskomponenterna) använder jag *mångtydighetsmixerbordet* som modell för att förklara hur designers/handledare kan skapa en halvöppen workshopstruktur. Jag förklarar de grundläggande principerna för att arbeta dessa tre komponenter och ger ytterligare råd om hur designers kan hantera specifika situationer och utmaningar.

4 Att styra förhandlingen för att säkerställa jämlik involvering av alla workshopaktörer i beslutsfattandet. En sådan styrning kan också bidra till genomförandet av en pluralistisk demokratisk process inom vilken workshopaktörernas mångfald representeras. Med detta i åtanke utvecklade jag ett *förhandlingsbeslutsträd* som väg-

leder hur designern kan upprätthålla en pluralistisk demokratisk process. Jag pekar också på svårigheten med designerns/handledarens dubbla roll i denna förhandling och belyser behovet av att engagera sig i barns *olika språk*.

5   Att stödja workshopaktörerna i att fullgöra sina ansvar. Jag förklarar skillnaden mellan generellt och tillkommande ansvar och vikten av att skapa medvetenhet avseende ansvarslöst beteende. Jag ger också råd om hur barndeltagarna och handledaren kan lära sig att dela ansvar.

Utöver det strategiska ramverket pekar jag på att framgången för *mångtydighetsmetoden* inte är beroende av det stegvisa genomförandet av detta ramverk, utan förlitar sig på hur designern anpassar dess grundprinciper utifrån de specifika situationer de stöter på och utifrån i deras sammanhang. Här belyser jag vikten av erfarenhetsbaserat lärande, och framför allt *lärande genom att göra*, *lärande genom tid* och *lärande från jämlikar*.

Avslutningsvis

Avhandlingens sista kapitel ger en beskrivning av hur min studie bidrar till den befintliga diskussionen om mångtydighetens roll i design (Gaver et al., 2003). Till skillnad från den strukturella ingången hos Gaver et al. pekar mina insikter på vikten av en processuell förståelse av mångtydighet. Jag visar att det inte bara är nödvändigt att ha en förståelse för de tre "formerna av mångtydighet" (ibid.) i förhållande till workshopaktörernas handlande, utan också en förståelse för de förhandlingsformer de använder för att bestämma vilken betydelse (eller vilka betydelser) som ska leda i processen samt och hur de hanterar sina ansvar inom processen.

Avhandlingen bidrar särskilt till den befintliga diskursen och metodutveckling ifråga om deltagande design med barn i form av en deltagande designmetod som bygger på mångtydigheten och inkluderar deltagande barns värderingar, bakgrunder och intressen i genomförandet av processen. Med andra ord, mångtydighet kan vara en resurs och katalysator vid genomförandet av en demokratisk process inom ramen för deltagande designpraktiker med barn, där barndeltagarna har friheten att dela sina åsikter om processens innehåll, roller och agenda, och där de är jämlikt involverade, både i beslutsfattandet om genomförandet av processen och i att ta ansvar för sina beslut. I stort framhäver avhandlingen mångtydighet som en resurs vid genomförandet av pluralistiska

demokratiska processer för alla workshopaktörer där barnen "också" är representerade.

Metoden *forskning genom designinterventioner* och dess forsknings-metodik i tre steg (workshop – memorering – analys) bidrar både till konstnärlig forskning och till designantropologi. Denna särskilda me-todik kan hjälpa konst- och designforskare att utveckla kunskap genom sina praktiker samtidigt som de är direktinvolverade i denna praktik. Det gör det också möjligt för dem att studera något som ännu håller på att ta form, som ännu är i vardande.

I avhandlingens sista kapitel reflekterar jag också över de olika konsekvenserna av dessa bidrag för deltagande design med barn och an-dra designområden, för barns delaktighet i samhället och för demokrati i stort. Här redogörs för framtida forskningsmöjligheter, eftersom ytter-ligare forskning behövs för att, till exempel, utforska vilken roll barns ålder har i relation till att arbeta med mångtydighet. Jag har bara kort pekat på det potentiella inflytandet som barn kan utöva (jfr omgivande komponenter: deltagargrupp), som kan utforskas ytterligare genom, till exempel, existerande studier om barns ålder, kognitiv utveckling och tolkning. På liknande sätt har jag också pekat på fördelarna med en mångfaldsrik deltagargrupp för att stimulera den medvetna upp-levelsen av mångtydighet (jfr omgivande komponenter: deltagarnas interna relationer), men jag har inte ytterligare utrett vad denna mång-fald betyder i förhållande till komplexiteten i maktförhållanden (t.ex. intersektionalitet) och genomförandet av en demokratisk process. Jag hoppas att framtida forskning kommer att göra det möjligt för mig att ytterligare undersöka vad mina forskningsfrågor betyder när jag arbetar med en intergenerationell deltagargrupp som består av både barn och vuxna. Utöver detta har jag också kort berört rollen som andra (vuxna) workshopaktörer har i metaprocessen att genomföra en demokratisk process. *Andra (vuxna) workshopaktörer* av detta slag är en del av de om-givande komponenterna (jfr kontext) och kan främja, eller motverka, genomförandet av en demokratisk process. Ytterligare fältarbete och forskning kan ytterligare belysa inflytandet de kan utöva, likaså bidra till mer djupgående förståelse. Dessutom kan ytterligare fältarbete och forskning också peka på mångtydighetens roll i utvecklingen av demo-kratiska relationer mellan barndeltagarna själva, där till exempel frågor om intersektionalitet kan utforskas. "Makt över"-situationer (Lukes, 2005[1974]) behandlas också kort i denna avhandling, men här finns mer att utforska. Slutligen behöver framtida forskning bedrivas för att

tydliggöra särdragen i hur de här processerna kan genomföras i andra sammanhang utöver deltagande design och design i allmänhet.

Med denna avhandling har jag strävat efter att ta ett första steg mot att behandla demokratiseringen av relationen barn–vuxna inom ramen för deltagande designpraktiker med barn. Genom *mångtydighetsmetoden* vill jag bjuda in designers att ompröva sina praktiker och aktivt utforska hur de kan hantera en mångfald av förväntade och oväntade betydelser – i detta fall genererade av en grupp barn – när processen genomförs. Jag skulle också vilja föreslå att designers uppfattar de framväxande *motstridiga* skillnaderna som konstruktiva utgångspunkter för att utveckla mer demokratiska barn–vuxen-relationer, som i sin tur kan inkludera de deltagande barnens värderingar, bakgrunder och intressen.

Avslutningsvis vill jag säga att mångtydighetens *universella* karaktär onekligen visar på potentialen i *mångtydighetsmetoden* för demokratiseringen av praktiker inom andra områden (förutom deltagande design), som i sin tur kan bidra till arbetetet med att inkludera barn i demokratiska processer i en större skala och omfattning.

AbR	Arts-based Research	Gangmakers & Koplopers
BC	Before Christ	Pace-setters and Front-runners
CI	Cooperative Inquiry	Kunnen Planten Kranten Schrijven?
CCD	Child Culture Design	Can Plants Write Newspapers?
CCI	Child-Computer Interaction	Trage Wegen
DEMOS	DEMOkratisk planering och	Slow Paths
	Styrning i arbetslivet /	Göteborgs Konsthall
	Democratic Planning and	Gothenburg Museum of Contemporary Art
	Control in Working Life	Göteborgs Konstmuseet
DUE	Demokratisk Utveckling	Gothenburg Museum of Art
	og EDB / Democratic	Göteborgs Stads kulturförvaltning
	Development and Com-	Gothenburg City Cultural Affairs
	puter Processing	Administration
ESR	Early Stage Researchers	Tryckverkstaden
EU	European Union	The Printing Workshop
HCI	Human-Computer Inter-	Rum för skapande, samtal och distribution
	action	Rooms for Creation, Conversation and
HCD	Human-Centred Design	Distribution
HDK	HDK-Valand—Högskolan	
	för Konst och Design /	
	HDK-Valand—Academy	
	of Art and Design	
ISGR	International School of the	
	Gothenburg Region	
NGO	Non-governmental organi-	
	sation	
NJMF	Norsk Jern- og Metallarbei-	
	derforbund / Norwegian	
	Iron and Metal Workers	
OUP	Oxford University Press	
PD	Participatory Design	
REA	Reggio Emilia Approach	
TRADERS	Training Art and Design	
	Researchers in Participa-	
	tion for Public Space	
UCD	User-Centred Design	
UK	United Kingdom of Great	
	Britain and Northern	
	Ireland	
UNCROC/	United Nations Convention	
UNCRC	on the Rights of the Child	
UNICEF	United Nations Interna-	
	tional Children's Emer-	
	gency Fund	
USA	United States of America	
UTOPIA	Utbildning, Teknik Och	
	Produkt I Arbetskvali-	
	tetsperspektiv / Training,	
	Technology and	
	Product in Work Quality	
	Perspective	

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Public Borders
In the framework of Wiels Kids Holiday Workshops, Wiels Contemporary Art Centre, 04.07.2014. Produced by *Office for Public Play*. Hosted by Wiels Contemporary Art Centre, Brussels. Supported by TRADERS. In collaboration with Wiels Contemporary Art Centre and TRADERS. Facilitation assistance: Anke Rymenams. Special thanks to Nadia Essouayah, Frédérique Versaen, and Dirk Snauwaert from Wiels.

Playful Rules
In the framework of *The Incroyable Téléphérique*, Parc de Forest Brussels, 23.08.2014 and 30.08.2014. Produced by *Office for Public Play*. Supported by TRADERS and the Flemish Government. In collaboration with The Incroyable Téléphérique, GC Ten Weyngaert, and TRADERS. Participating children: Oskar DeGruyter, Kes DeGruyter, Al Houssain Louah, Jihane Louah, Lode Luijters, Nour Mjouh, Yaro Vancaille, Lucie Van den Schrieck, Elias Serroen, Leon Stallaert. Facilitation assistance: Rik Schrauwen. Special thanks to Bart Goeteyn, Luca Moltmann, Ann Rommel, and Lieve Seghers.

Playful Monstration
In the framework of Wiels Kids Holiday Workshops, Wiels Contemporary Art Centre, 27.10.2014–31.10.2014. Produced by *Office for Public Play*. Hosted by Wiels Contemporary Art Centre, Brussels. Supported by TRADERS. In collaboration with Wiels Contemporary Art Centre and TRADERS. Participating children: Maximilian Bootsveld, Isa Borret, Darius Cassiers, Amber and Brent Cherrette, Jade de Limburg, Leon Gellynck, Anna Lateur, Béatrice Vanden Abeele, Elias and Eva-Lee Vanden Abeele. Facilitation assistance: Michael Kaethler. Special thanks Nadia Essouayah, Frédérique Versaen, and Dirk Snauwaert from Wiels.

Recipes for unControl
In the framework of Tryckverkstaden—Rum för skapande, samtal och distribution, Göteborgs Konsthall, 2015.12.05–2016.01.10. Produced by *Office for Public Play*. Hosted by Göteborgs Konsthall. Supported by TRADERS and Göteborgs Konsthall. In collaboration with Göteborgs Konsthall, HDK Child Culture Design, ISGR Gothenburg, Göteborgs Stads kulturförvaltning, and TRADERS. Participating students from International School of the Gothenburg Region: Tanay Dashottar, Ameya Deshpande, Leonora Ernst, Kaoru Fesenko, James Harte, Tova Persson, Stella Postleb, Kairi Pullerits, Paul Schindler, Oscar Teiffel, and Max Zayashnikov. Participating teachers: Lydia Regalado, Jen York. Facilitation assistance by master's students from Child Culture Design, HDK: Maddalena Aliprandi, Nathan Clydesdale, Vici Hofbauer, Kateřina Kuchařová, Linjie Li, and Melanie Wittig. Special thanks to Borghild Håkansson and Ylva Mühlenbock from Göteborgs Stads kulturförvaltning for putting me in contact with Göteborgs Konsthall, and to Mija Renstrom, Ann-Sofi Roxhage, and Liv Stoltz from Göteborgs Konsthall.

Dialogue Shapers
In the framework of the *Gangmakers & Koplopers* project, initiated by Trage Wegen, 05.07.2016–07.07.2016. Produced by *Office for Public Play*. Hosted by Pastory Supported by TRADERS and the Flemish Government (Department of Culture, Youth, Sports and Media). In collaboration with Trage Wegen, dasKunst, city of Ghent (departments Education, Upbringing and Youth, and Mobility), and TRADERS. Participating children: Dominique, Emmanuel, Sabrina, Vasil (Some of the participants did not want to have their family name published), and Feanor De Vlam, Mia De Waele, Oona Gabriel, Ivan Krok, Sofi Krok, Tibor Krok, Emilia Valencia, Flore Wilmet. Participating dialoguers: Elke Decruynaere, the Councillor of Education, Upbringing and Youth for Ghent and her assistant: Jorre Biesmans. Filip Watteeuw, Councillor for Mobility in Ghent and his assistant: Ruben Haerens. Facilitation assistance: Emma Ribbens and Sabine Vanderlinden. Video documentation: Sabine Vanderlinden. Photo documentation: Emma Ribbens. Special thanks to Steven Clays, Maxime Vancoillie, and Andy Vandevyvere from Trage Wegen.

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Annelies Vaneycken is a designer, educator, and researcher. She is currently finishing her PhD in Design at HDK-Valand—Academy of Art and Design at the University of Gothenburg (SE). Her practice-based research explores the role of ambiguity in developing democratic child–adult interactions in participatory design projects with children. She was a Research Fellow in the EU Marie Curie project TRADERS (2014–2017) where she explored *free play* as a participatory design approach when working with children on their participation in public space issues (www.officeforpublicplay.org). In her self-initiated practice, she addresses the intersection of design, art, politics, and everyday life. Her work revolves around designing alternative spaces and narratives that aim to disrupt conventional perspectives and attitudes towards specific social groups in society. She therefore engages in ethnographic and partic-ipatory engagement with members of these groups (www.anneliesvaneycken.be). Annelies holds a Master's Degree in Graphic Design obtained at Sint-Lukas Brussels (BE, 1994–1998) and a Master's Degree in Design: New Media obtained at the Sandberg Institute in Am-sterdam (NL, 1998–2000). After graduating from the Sandberg Institute, she founded her graphic design studio Trans-ID. She has taught on the Bachelor's and Master's Programmes of Graphic Design at LUCA School of Arts in Brussels (BE, 1999–2014).

This image epilogue shows photographs of my fieldwork. More specifically, the photographs show, in as far this is possible, how I have tried to introduce openness into my participatory design approach. Because many of the ways in which I introduced openness into my participatory design approach are intangible and therefore not representable through photographs, the few photographs in this epilogue represent only a limited number of the many ways that I brought openness into my participatory design approach.

P2-01
Mister Wiels as a *co-self-created tool,*
Playful Monstration

ES FOR _UNCONTROLL_

P2-02
Printmaking as *novel* material,
Recipes for unControl

P2-03
A rope as *loose parts material*,
Dialogue Shapers

P2-04
The body as *lost and found material*,
Recipes for unControl

P2-05
The assignment-banners,
Playful Monstration

Ver-beelden

Vik Muniz

De Braziliaanse kunstenaar **Vik Muniz** (*1961 San Paulo) vertrekt vanuit de fotografie om dit beeld...

website
http://www.vikmuniz.net

video
http://www.watchusband...

Kunstige planten

Zijn volgende doen/afbeeldingen van kunstwerken? waarom wel of niet?
Wat vertellen deze foto's?

Afval als kunst?

Kan je kunstenaars die met vreemde materialen kunnen we een tekening of schilderij maken?
Met welke alternatieve materialen kunnen we een tekening of schilderij maken?

Planten ver-beelden

Kunst & Machines

Grids & Letters

1234...
The quick brown
fox jumps
a lazy dog

A B
H
L M
Q R S
V W X

P2-06
An example of an *eclectic-and-abstract tool*,
Playful Rules

P2-07
The *Stories of Borders and other Forms
of Control in Public Space Map* as a
co-self-created tool, Recipes for unControl

P2-08
The set-up of *The Chair Dance* role-playing
game, *Recipes for unControl*

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